

PRODUCT CATALOG

RETAIL & COMMERCIAL FUELING PRODUCTS



BELOW GROUND
PRODUCTS

ABOVE GROUND
PRODUCTS

CLEAN ENERGY
FUELING PRODUCTS

FUEL MANAGEMENT
SYSTEMS

PDQ VEHICLE
WASH SYSTEMS



www.opwglobal.com

OPW-CATALOG-01/2021

DEFINING | WHAT'S NEXT

DEFINING | WHAT'S NEXT IN FLUID HANDLING SOLUTIONS WORLDWIDE



Kevin Long | President

Since 1892, OPW has been Leading the Way in Fluid Handling Solutions Worldwide. The OPW brand represents an implicit promise of trust to its customers and distributors. A promise backed by an unparalleled heritage of innovation, quality, reliability, safety, efficiency and availability.

As an organization, OPW consists of five primary business units, three global operating units worldwide and multiple manufacturing operations in North America, Europe, UK, Brazil, China and India and sales offices around the globe. OPW is part of the Fluids segment of Dover Corporation (NYSE: DOV).

It is our mission to revolutionize fluid handling operations globally by optimizing safety, efficiency, reliability and environmental sustainability through innovative fluid handling and information management solutions.

Combine OPW Retailing Fueling above ground and below ground solutions with OPW Electronic Systems and you get ***the only end-to-end solution from a single source in the industry*** – an integrated solution where every component is designed and manufactured to work in unison.

We are a brand known as much for our character as for our great products. Operators around the world know they can trust OPW to consistently deliver the kind of high-quality fluid handling solutions they need to meet their business requirements and to help them fulfill their individual goals of social and environmental responsibility today and into the future.



Nozzles & Accessories



Underground Storage



Piping & Containment



CleanEnergy

RETAIL FUELING

OPW Retail Fueling consists of four key areas of operation – Nozzles and Accessories, Underground Storage Equipment, Piping and Containment and CleanEnergy Fueling Products. Specifically designed to optimize fuel transfer efficiency and environmental protection at commercial and retail fueling sites, OPW is the brand specified by more fueling operators worldwide than any other.

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For more information, visit us at: <http://www.pdqinc.com/>

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ONE¹SITE



One Company. One Call. One Package.

One-Site by OPW is the Industry's most Innovative,
Integrated and Complete Underground
Fueling and Containment Package.

BELOW GROUND PRODUCTS

Environmental Sustainability by Design



PIPING & CONTAINMENT SYSTEMS

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Piping Layout (Pressure System)

Tank Sumps, Tank Sump Systems and Accessories

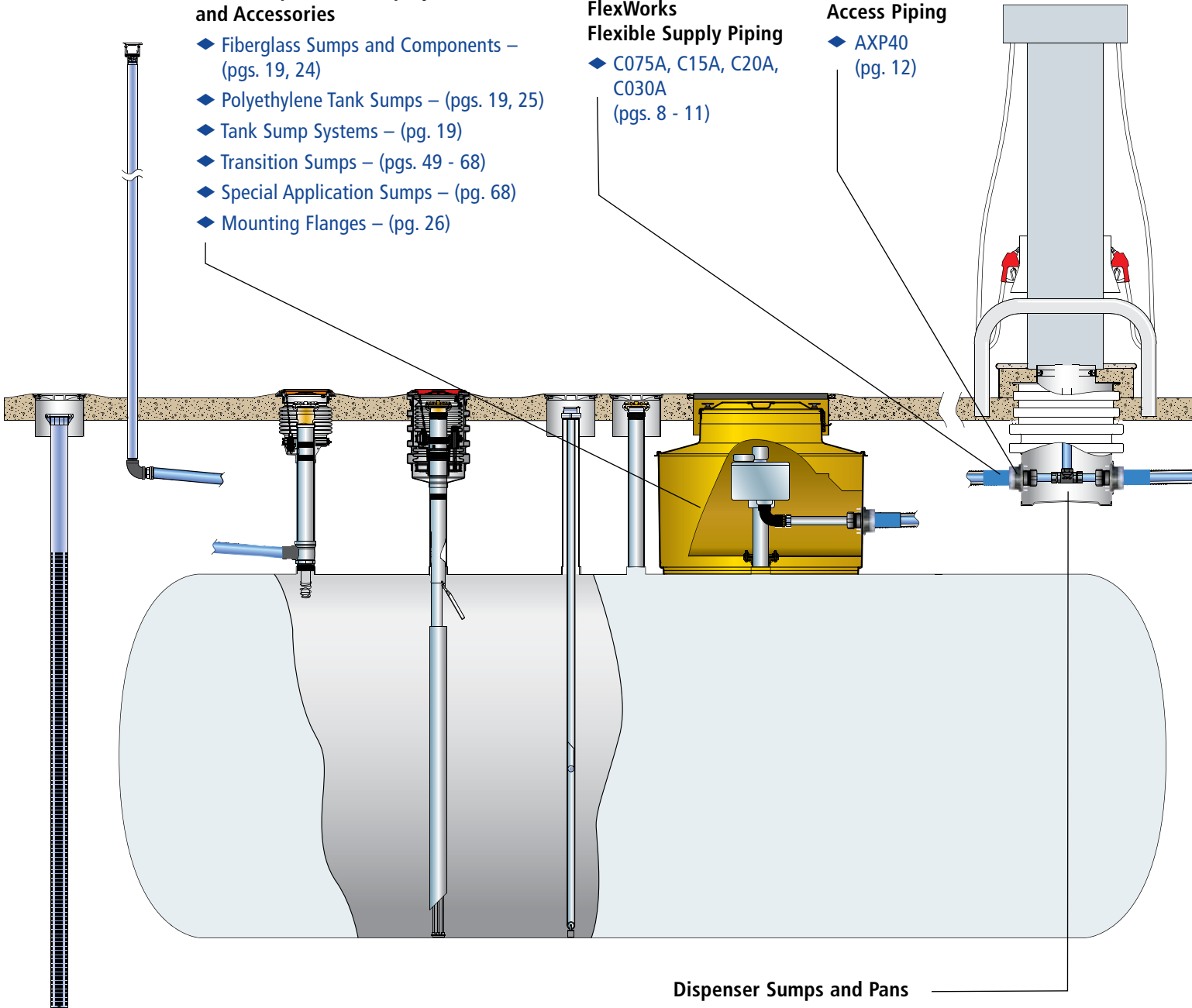
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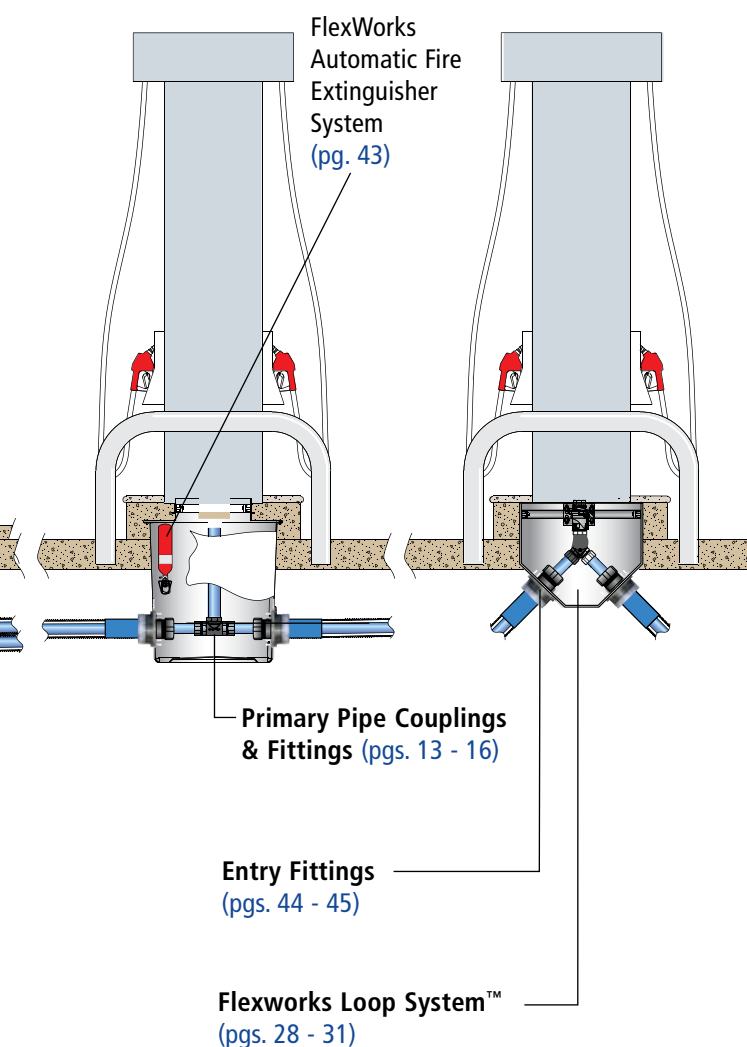


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FlexWORKS

The complete Environmental System
for underground fuel transfer and
containment for the 21st century.



OPW Innovative Fueling Solutions

The heart of FlexWorks is an advanced, flexible piping system that can be installed quickly and easily in a variety of configurations. Flexible piping eliminates the need for buried piping joints, which are notorious leak points in rigid piping systems. In a pressure system, the submersible pump is connected in series directly to the dispensers with a continuous run of flexible pipe. In a suction system, a continuous run of flexible pipe connects the tank to the suction pump dispenser. All piping connections at the tank and dispensers are contained in sumps.

The primary fuel pipe is available with an integral secondary containment pipe, which can be inserted into a dual layer, corrugated access pipe. The crush-resistant access pipe protects the primary pipe from the backfill while serving as an added layer of protection. The access pipe also affords the added advantage of primary pipe retractability. Future inspection, repair or replacement of the primary pipe is achievable without excavation.

The FlexWorks System features highly integrated components that interconnect seamlessly to provide reliable Secondary Containment. FlexWorks dispenser sumps are custom made for each particular dispenser footprint. FlexWorks tank sumps afford raintight containment for and accessibility to submersible pumps and UST equipment. A variety of FlexWorks entry fitting styles and sizes ensure the availability of a custom-designed solution for virtually every piping application.

FlexWorks by OPW is the complete Environmental System for underground fuel transfer and containment for the 21st century.

**Listings and
Certifications**



FlexWorks Supply Piping

Why flex pipe?

OPW developed FlexWorks Pipe in response to customer feedback. You asked and we delivered! The pipe is more flexible, lighter and has reduced memory. Pipe can also be replaced without breaking concrete.

Elimination of potential underground leak points

- ◆ No underground fittings or joints
- ◆ No hand-built field joints
- ◆ All termination points are contained safely inside sumps
- ◆ Termination joints precision coupled to simulate factory made assemblies

Light, Flexible, & Easy to Install. ULC Approved for All Fuels

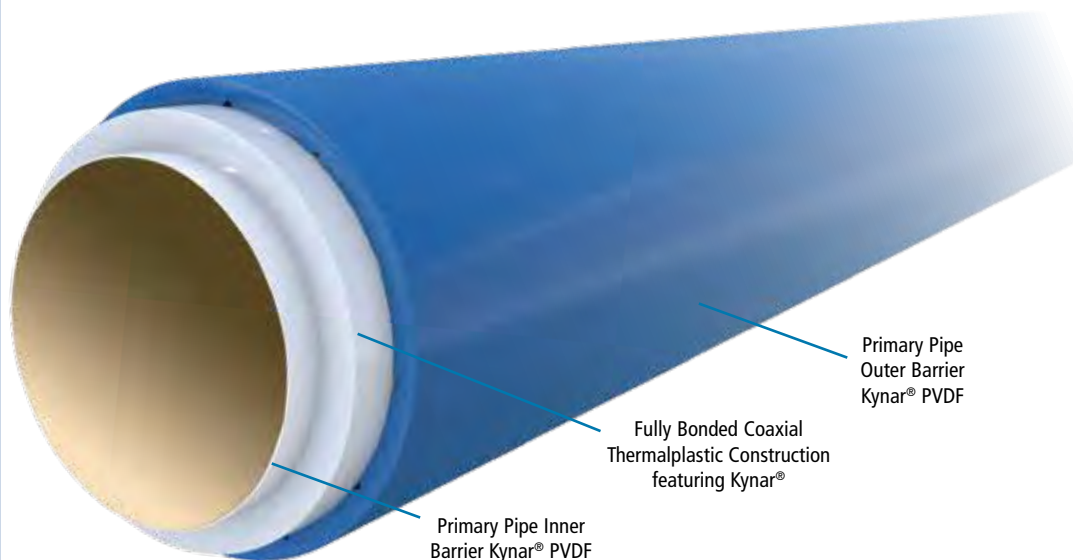


ULC APPROVAL

- ✓ Motor Vehicle Fuels
- ✓ High Blend Fuels
- ✓ Concentrated Fuels
- ✓ Aviation and Marine

FlexWORKS

Celebrating Over 20 Years of Success Through Piping Excellence



What Makes This Pipe Different? Lower installation costs

- ◆ **Eliminates the hassles** – installation time and potential leak points of rigid pipe installations
- ◆ **No adhesives** – heat assists, curing problems or electrofusion welding of joints
- ◆ **Fast and easy installation** – results in less installation labor, time and cost
- ◆ **Easy to bend** – no special fittings to install in order to make bends
- ◆ Eliminates burdensome cutting, fitting, and cleaning

FlexWorks Supply Piping

OPW's FlexWorks Pipe is more flexible, lighter and has reduced memory to aid installation and is UL approved for all fuels.

Ordering Specifications - Sizing Matrix

| Double Wall Pipe | | | | | |
|------------------|-------------------------------------|------------|------------|---|--|
| Part # | Description | Packaged | | Specifications | |
| C075A-250 | 3/4" Double Wall Primary Pipe | 250 ft | Box | | |
| C075A-1000 | 3/4" Double Wall Primary Pipe | 1000 ft | Reel | | |
| C075A-CLXXX | 3/4" Double Wall Primary Pipe | 10-990 ft | Box | Custom Box/ Reel 10-990 ft (XXX enter feet in 10 ft increments) | |
| C10A-250 | 1" Double Wall Primary Pipe | 250 ft | Box | | |
| C010A-CLXXX | 1" Double Wall Primary Pipe | 10-990 ft | Box | Custom Box/Reel 10-990 ft (XXX enter feet in 10 ft increments) | |
| C15A-250 | 1.5" Double Wall Primary Pipe | 250 ft | Reel | | |
| C15A-500 | 1.5" Double Wall Primary Pipe | 500 ft | Reel | | |
| C15A-1000 | 1.5" Double Wall Primary Pipe | 1000 ft | Reel | | |
| C15A-1400 | 1.5" Double Wall Primary Pipe | 1400 ft | Reel | | |
| C15A-1225 | 1.5" Stick Pipe Double Wall - 25 ft | 25 ft each | 12 per Box | Sold Box of 12 – Minimum order 300 ft | |
| C15A-1228 | 1.5" Stick Pipe Double Wall - 28 ft | 28 ft each | 12 per Box | Sold Box of 12 – Minimum order 336 ft | |
| C15A-1233 | 1.5" Stick Pipe Double Wall - 33 ft | 33 ft each | 12 per Box | Sold Box of 12 – Minimum order 396 ft | |
| C15A-1240 | 1.5" Stick Pipe Double Wall - 40 ft | 40 ft each | 12 per Box | Sold Box of 12 – Minimum order 480 ft | |
| C20A-250 | 2" Double Wall Primary Pipe | 250 ft | Reel | | |
| C20A-500 | 2" Double Wall Primary Pipe | 500 ft | Reel | | |
| C20A-800 | 2" Double Wall Primary Pipe | 800 ft | Reel | | |
| C20A-1225 | 2" Stick Pipe Double Wall - 25 ft | 25 ft each | 12 per Box | Sold Box of 12 – Minimum order 300 ft | |
| C20A-1228 | 2" Stick Pipe Double Wall - 28 ft | 28 ft each | 12 per Box | Sold Box of 12 – Minimum order 336 ft | |
| C20A-1233 | 2" Stick Pipe Double Wall - 33 ft | 33 ft each | 12 per Box | Sold Box of 12 – Minimum order 396 ft | |
| C30A-100 | 3" Double Wall Primary Pipe | 100 Ft | Reel | | |
| C30A-250 | 3" Double Wall Primary Pipe | 250 Ft | Reel | | |
| C30A-500 | 3" Double Wall Primary Pipe | 500 Ft | Reel | | |
| C30A-600 | 3" Double Wall Primary Pipe | 600 | Reel | | |
| C30A-0528 | 3" Stick Pipe Double Wall - 28 ft | 28 ft each | Box | Maximum 6 pieces to a box | |

Single Wall Pipe

| Part # | Description | Packaged | | Specifications | |
|---------|-----------------------------|----------|------|------------------------------------|--|
| S20-250 | 2" Single Wall Primary Pipe | 250 ft | Box | If no stock, minimum 2,500 ft run. | |
| S20-750 | 2" Single Wall Primary Pipe | 750 ft | Reel | | |

Note: Discounted short runs available while supplies last. Please contact Customer Service for availability and pricing.

Flexible Supply Piping

OPW FlexWorks flexible piping utilizes fully bonded, premium Kynar® PVDF construction throughout to offer complete peace-of-mind protection, performance, installation ease and advantages over rigid and semi-rigid pipe.

Features & Benefits:

- ◆ **Lower installation costs**
 - ◆ **Eliminates the hassles** – installation time and potential leak points of rigid pipe installations
 - ◆ **Easy installation** – results in less installation time
 - ◆ **Eliminates burdensome cutting, fitting, and cleaning**
 - ◆ **No adhesives** – heat assists, curing problems or electrofusion welding of joints
 - ◆ **Easy to bend** – no special fittings to install in order to make bends
- Eliminates potential underground leak points:**
- ◆ **No underground** – fittings or joints
 - ◆ **No hand-built field joints**
 - ◆ **All termination points are contained in sumps**
 - ◆ **Termination joints precision swaged to simulate factory-made assemblies**

Double Wall Flexible Piping:

UL 971 Listed, Integral Primary/Secondary, Normal Vent & Vapor Piping, Gasoline, Aviation & Marina Fuels:

A UL-listed, double-wall, flexible supply piping system is designed for installation within Access piping (not required but recommended). The outer containment pipe includes inner stand-off ribs to create a small interstitial space which allows for optimum fluid migration, continuous monitoring and easy periodic testing. This piping features an enhanced construction that meets the new UL971 standard. OPW's FlexWorks double-wall piping has both the primary and secondary containment pipe UL-listed and is labeled as follows: INTEGRAL PRIMARY/SECONDARY FOR MOTOR VEHICLE FUELS.

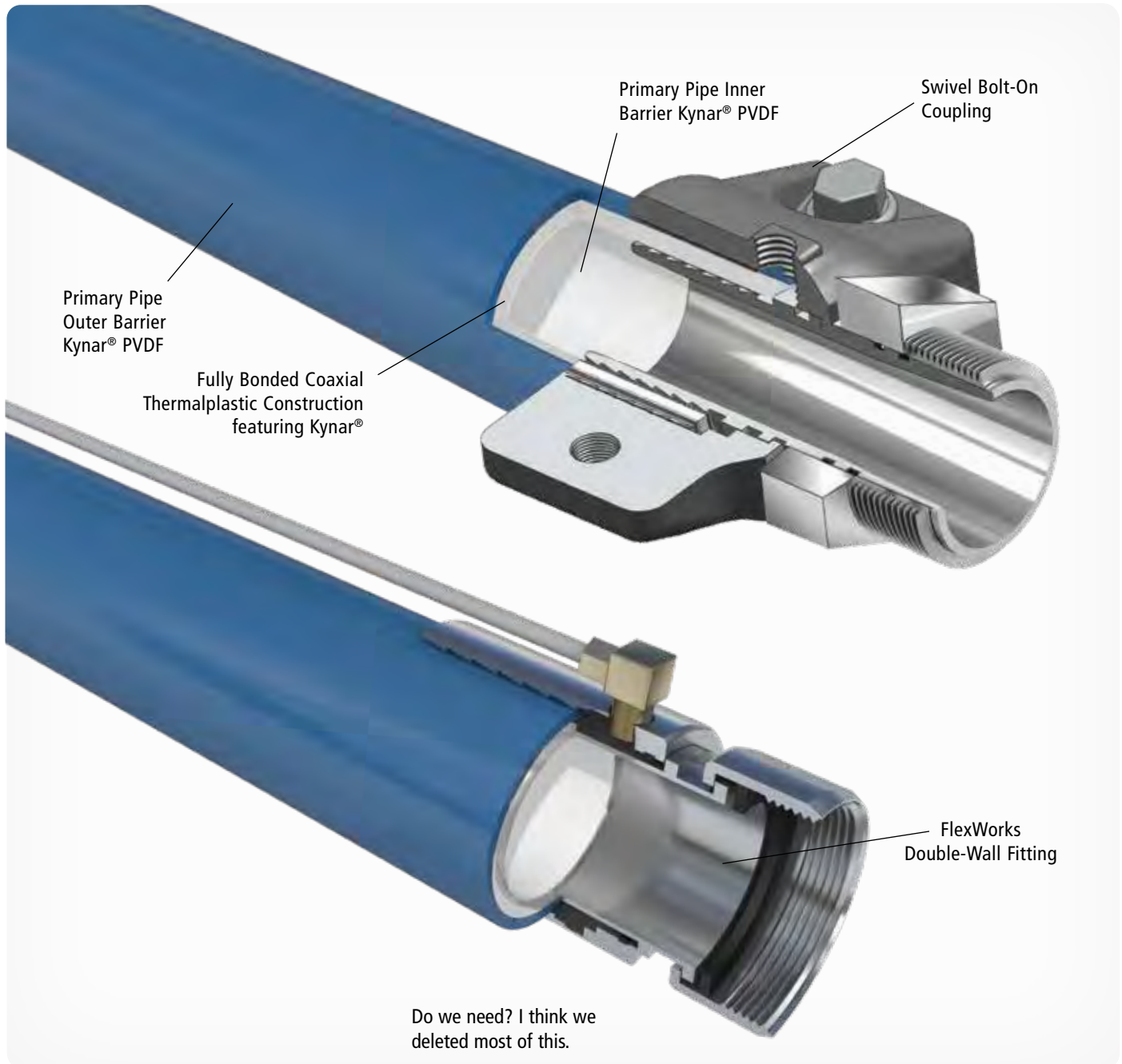
Ordering Specifications* - FlexWorks Double-Wall Product Piping

| Part # | Application | Minimum Bend Radius | | Packaging | | Dimensions | | | | Box/Reel Size (in.) | Box/Reel Weight | |
|------------|--------------------------------|---------------------|------|-----------|----------|------------|----|------|------|------------------------|-----------------|-----|
| | | in. | mm | | | I.D. | | O.D. | | | lbs. | kg |
| C075A-250 | Double-Wall Primary Pipe, ¾" | 18 | 457 | Box | 250 ft | .75 | 19 | 1.18 | 29 | 44x44x25 | 134 | 61 |
| C075A-1000 | Double-Wall Primary Pipe, ¾" | 18 | 457 | Reel | 1000 ft | .75 | 19 | 1.18 | 29 | 58x58x48 | 527 | 239 |
| C10A-250 | Double-Wall Primary Pipe, 1" | 18 | 457 | Box | 250 ft | 1.0 | 25 | 1.50 | 38 | 44x44x25 | 169 | 77 |
| C10A-1000 | Double-Wall Primary Pipe, 1" | 18 | 457 | Reel | 1000 ft. | 1.0 | 25 | 1.50 | 38 | 58x58x48 | 605 | 274 |
| C15A-250 | Double-Wall Primary Pipe, 1.5" | 24 | 610 | Box | 250 ft. | 1.5 | 38 | 2.00 | 51 | 38x45x30 | 240 | 109 |
| C15A-500 | Double-Wall Primary Pipe, 1.5" | 24 | 610 | Reel | 500 ft. | 1.5 | 38 | 2.00 | 51 | 58x58x48 | 605 | 274 |
| C15A-1000 | Double-Wall Primary Pipe, 1.5" | 24 | 610 | Reel | 1000 ft. | 1.5 | 38 | 2.00 | 51 | 58x58x48 | 980 | 444 |
| C20A-250 | Double-Wall Primary Pipe, 2" | 36 | 914 | Box | 250 ft | 2 | 51 | 2.50 | 63.5 | 63x63x33 | 192 | 87 |
| C20A-500 | Double-Wall Primary Pipe, 2" | 36 | 914 | Reel | 500 ft. | 2 | 51 | 2.50 | 63.5 | 68x68x48 | 770 | 349 |
| C30A-200 | Double-Wall Primary Pipe, 3" | 72 | 1828 | Reel | 200 ft | 3 | 76 | 3.50 | 88 | 63x63x33 | 652 | 296 |

* OPW also offers short and custom lengths of pipe, as well as pipe packaged and shipped on Mega Reels. Please contact our Customer Service department at 1-800-422-2525, or visit us on the web at www.opwglobal.com for the most up-to-date information.

Flexible Piping Manual
Order Number: UPM-0001

Flexible Supply Piping



| Product # | Size | | Description | Working Pressure | | Temperature Rating | | Burst Pressure | Max Vacuum for Suction |
|-----------|------|------|--------------------------|------------------|---------|--------------------|----------------|-----------------------------|-----------------------------|
| | in. | cm | | PSIG | BAR | F | C | | |
| C075A | ¾ | 1.9 | Double-Wall Primary Pipe | 145 | 10 bar | -20° to +120° F | -29° to +49° C | Exceeds 5X Working Pressure | 26" of Mercury for All Pipe |
| C10A | 1 | 2.54 | Double-Wall Primary Pipe | 125 | 8.6 bar | | | | |
| C15A | 1.5 | 3.8 | Double-Wall Primary Pipe | 100 | 6.9 bar | | | | |
| C20A | 2 | 5 | Double-Wall Primary Pipe | 75 | 5 bar | | | | |
| C30A | 3 | 7.6 | Double-Wall Primary Pipe | 75 | 5 bar | | | | |

Listings and Certifications

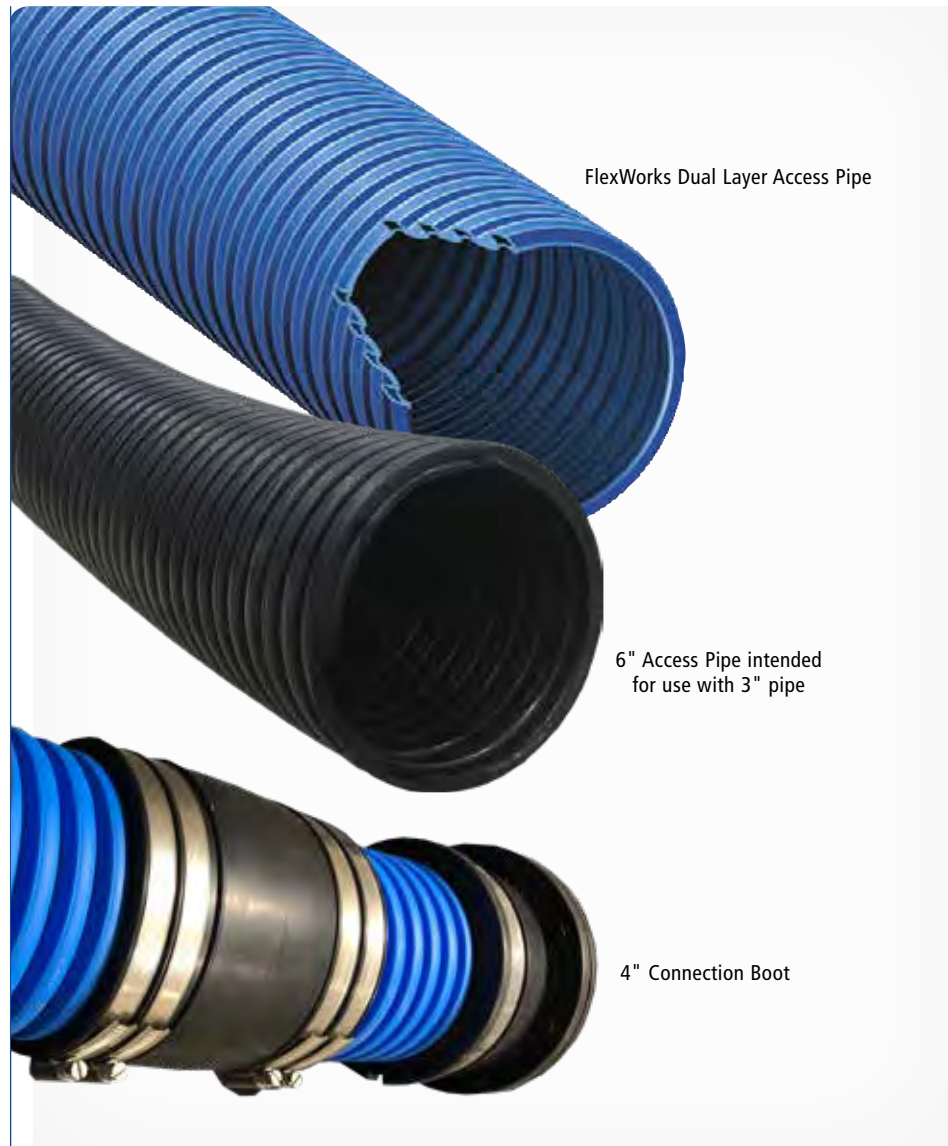


Dual Layer Access Pipe

A 4" diameter corrugated flexible conduit is used to provide access to and permit the future replacement of the Flex piping if desired. This corrugated pipe is strong enough to withstand H-20 loading requirements when properly buried and thick enough to minimize damage from shipping and jobsite handling. Access pipe can accommodate the 3/4", 1", 1-1/2", 2" and 3" FlexWorks supply pipe.

Features & Benefits:

- ◆ Crush and puncture-resistant
- ◆ Semi-smooth liner facilitates ease of installation
- ◆ Saves you time and money
- ◆ No buried joints



Ordering Specifications - FlexWorks Dual Layer Access Pipe

| Part # | Application | Minimum Bend Radius | | Packaging | | Dimensions | | | | Box Size | Weight | | |
|----------------|---------------------------|---------------------------|-----|-----------|---------|------------|-----|-------|-------|----------|----------|------|-----|
| | | in. | mm | | | I.D. | | O.D. | | | in. | lbs. | kg |
| | | | | | | in. | mm | in. | mm | | | | |
| AXP40-100 | 4" Dual Layer Access Pipe | 18" | 457 | Box | 100 ft. | 4 | 102 | 4.760 | 121.0 | 42x42x32 | 115 | 52 | |
| AXP40-250 | 4" Dual Layer Access Pipe | 18" | 457 | Box | 250 ft. | 4 | 102 | 4.760 | 121.0 | 60x60x32 | 218 | 99 | |
| AXP60-250 | 6" Dual Layer Access Pipe | 36" | 914 | Box | 250 ft. | 6 | 152 | 7.100 | 180.0 | 60x60x32 | 243 | 113 | |
| <div>NEW</div> | AXP60-500 | 6" Dual Layer Access Pipe | 36" | 914 | Box | 500 ft. | 6 | 152 | 7.100 | 180.0 | 96x60x32 | 485 | 220 |
| <div>NEW</div> | AXP60-100 | 6" Dual Layer Access Pipe | 36" | 914 | Box | 100 ft. | 6 | 152 | 7.100 | 180.0 | 48x48x32 | 125 | 57 |
| <div>NEW</div> | AXP40-Connect | 4" Connection Boot | | | | | | | | | | | |

Access Pipe Installation Instructions Sheet Order Number: **API-0001**



Swivel Couplings and Fittings for Primary Pipe

FlexWorks swivel couplings and fittings are used to interconnect flexible piping. These UL/ULC-listed stainless steel couplings must be contained within containment sumps and not directly buried. The pipe connection system includes an internally expanded stainless steel coupling attached to the end of a flexible pipe section.

Double-Wall Couplings

Double-wall swivel couplings eliminate the need for cutting back the secondary jacket and rubber test boots. They have an integral interstitial access port for connector and test tubes.

These double-wall couplings permit higher interstitial testing pressures and eliminate added parts and labor costs.

Features & Benefits:

- ◆ UL/ULC-listed for use with Flex piping
- ◆ Quick, easy to install
- ◆ All stainless steel couplings
- ◆ Internally expanded couplings
- ◆ Permanent Interstitial Test Port

3" Double Wall Coupling **NEW**

- ◆ Fully compatible with our 3" FlexWorks Piping
- ◆ Interstice integrated with the pipe secondary

Double-Wall Swivel Pipe Couplings

Double-Wall Swivel Pipe Couplings are a proven coupling and fitting system designed exclusively for use with FlexWorks Piping.

Double-Wall swivel couplings and fittings are a double-wall design and are used to interconnect FlexWorks flexible piping. These UL/ULC-listed stainless steel couplings must be contained within containment sumps and not directly buried.

This pipe connection system includes an internally expanded stainless steel coupling attached to the end of a FlexWorks pipe section. The swivel coupling has a smooth sealing face fitted with a Viton® ring gasket.

Double-wall swivel couplings eliminate the need for cutting back the secondary jacket and rubber test boots. They have an integral interstitial access port for connector and test tubes.

These double-wall couplings permit higher interstitial testing pressures and eliminate added parts and labor costs.



Double Wall Pipe Coupling (DPC Model)

Double-wall pipe couplings require the use of an OPW Retail Fueling coupling machine to internally expand the stainless steel fitting onto the end of a FlexWorks pipe section.

Internally expanded couplings have a long, successful history of reliable performance.

Features & Benefits:

- ◆ UL / ULC listed for use with Flex piping
- ◆ Quick, easy to install
- ◆ All stainless steel couplings
- ◆ Internally expanded couplings
- ◆ Permanent Interstitial Test Port

NEW 3" Double Wall Coupling

- ◆ Fully compatible with our 3" FlexWorks Piping
- ◆ Interstice integrated with the pipe secondary

Ordering Specifications - FlexWorks Double Wall Swivel Couplings and Fittings

| Part # | Application | Weight | Packaging |
|-----------|--|--------|-----------|
| DPC-2150A | 1.5" Double-Wall Swivel Pipe Coupling, Flat Gasket | 1.05 | EA |
| DPC-2200A | 2" Double-Wall Swivel Pipe Coupling, Flat Gasket | 1.35 | |
| DPC-2300A | 3" Double-Wall Swivel Pipe Coupling, Flat Gasket | 2.35 | |

Ordering Specifications* - FlexWorks Fittings and Accessories for DPC Coupler

For Single-wall fittings contact customer service at 1-800-422-2525.

| Model | Application | Weight/lbs |
|----------|--|------------|
| SGP-0150 | 1.5" Swivel Gasket Pack for SPC-0150 (6 ea.) | .05 |
| SGP-0200 | 2" Swivel Gasket Pack for SPC-0200 (6 ea.) | .10 |
| SGP-0300 | 3" Swivel Gasket Pack for SPC-0300 (6 ea.) | .15 |
| STC-0150 | 1.5" Swivel Test Cap | 1.0 |
| STC-0200 | 2" Swivel Test Cap | 1.2 |
| STC-0300 | 3" Swivel Test Cap | 3.65 |
| SFA-7575 | 3/4" Adaptor, 3/4" Female NPT to 3/4" Female NPT | .35 |
| SMA-7575 | 3/4" Adaptor, 3/4" Female NPT to 3/4" Male NPT | .50 |
| SFA-1010 | 1" Adaptor, 1" Female NPT to 1" Female NPT | .60 |
| SMA-1010 | 1" Adaptor, 1" Male NPT to 1" Female NPT | .55 |
| SMA-1515 | 1.5" Adaptor, 1.5" NPSH to 1.5" NPT | 1.10 |
| SMA-1520 | 1.5" Adaptor, 1.5" NPSH to 2" Male NPT | 1.30 |
| SMA-2020 | 2" Adaptor, 2" NPSH to 2" Male NPT | 1.25 |
| SMA-3030 | 3" Adaptor, 3" NPSH to 3" NPT | 2.50 |
| STF-1515 | 1.5" Tee, 1.5" NPSH x 1.5" NPSH x 1.5" NPT | 2.20 |
| STF-2020 | 2" Tee, 2" NPSH x 2" NPSH x 2" NPT | 4.25 |
| STF-2215 | 2" Tee, 2" NPSH x 2" NPSH x 1.5" NPT | 4.32 |
| STF-3030 | 3" Tee, 3" NPSH x 3" NPSH x 3" NPT | 5.70 |
| SEF-1515 | 1.5" Elbow, 1.5" NPSH x 1.5" NPT | 1.50 |
| SEF-2020 | 2" Elbow, 2" Female NPT to 2" Male NPSH* | 2.60 |
| SEF-3030 | 3" Elbow, 3" NPSH x 3" NPT | 4.10 |
| SRE-2015 | 2" Elbow Reducer, 2" NPSH x 1.5" NPT | 2.85 |
| SCC-2015 | 2" Reducer, 2" NPSH to 1.5" NPSH | 3.00 |
| SRT-2151 | 2" Reducer, 2" NPSH x 1.5" NPSH x 1.5" NPT | 3.00 |
| SCC-1515 | 1.5" Connector, 1.5" NPSH to 1.5" NPSH | 0.75 |
| SCC-2020 | 2" Connector, 2" NPSH to 2" NPSH | 1.00 |
| SCC-3030 | 3" Connector, 3" NPSH to 3" NPSH | 1.50 |

Riser adaptors can be used to extend riser with any thread-on OPW spill container, including EDGE 2100 and 2200.

*British Fittings are available in Europe. Please contact OPW-EMEA Customer Service at +420-474-624-025.

| Model | Size (in.) | Weight/lbs |
|--------------|------------|------------|
| 21BV-0050 | 1/2 | 3/4 |
| 21BV-0075 | 3/4 | 1.00 |
| 21BV-0100 | 1 | 1.00 |
| 21BV-0150 | 1 1/2 | 3.00 |
| 21BV-0200 | 2 | 3.50 |
| 21BV-0200SS* | 2 | 3.50 |
| 21BV-0300 | 3 | 4.50 |

*SS denotes Stainless Steel.



Adaptor (SMA Model)



Tee (STF Model)



Elbow (SEF Model)



21BV

OPW Retail Fueling Introduces a New Generation of Swivel Bolt-On Couplings

Announcing our revolutionary new SBC Swivel Bolt-On Double Wall Pipe Coupling. The new patent pending technology gives users the same great features as our revolutionary DPC swage on double wall fittings in a Bolt-on design. The SBC eliminates the need to trim back the secondary jacket – and eliminates the need for rubber test boots!

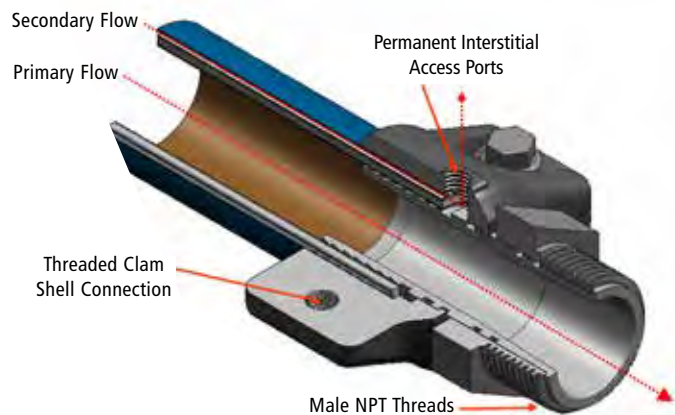
Features and Benefits

- ◆ All Stainless Steel Wetted Surfaces
- ◆ No Jacket Stripping
- ◆ No Test Boots
- ◆ Male NPT Thread allows this coupling to be used with standard plumbing Tees and Elbows
- ◆ Decreased Installation Time
- ◆ Provides quick and effective means to monitor or retest secondary containment
- ◆ State-of-the-Art Clam Shell Interlock Design only available through OPW
- ◆ Double O-Ring Swivel Design for easy and secure connections



New patent-pending Swivel Bolt-On Coupling system simplifies the interstitial connection process for FlexWorks Flexible Piping.

Our new FlexWorks Swivel Bolt-On Coupling features a double wall design that eliminates the need to trim back the secondary jacket. The need for rubber test boots is eliminated. Permanent access to the pipes interstice allows for future integrity testing or continuous interstitial monitoring. Swivel Bolt-On Couplings have an integral interstitial fluid path and a threaded access port located directly on the coupling collar. This state of the art method of connection is a cost effective solution that allows rapid system integrity testing as well as interstitial monitoring capability, at installation and in the future to accommodate new monitoring regulations.

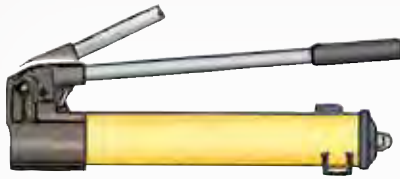


Ordering Specifications Swivel Bolt-On Coupling

| Model | Description |
|----------|-----------------------------------|
| SBC-2075 | Swivel Bolt-On Coupling, 3/4" NPT |
| SBC-2100 | Swivel Bolt-On Coupling, 1" NPT |
| SBC-2150 | Swivel Bolt-On Coupling, 1.5" NPT |
| SBC-2200 | Swivel Bolt-On Coupling, 2" NPT |

Ordering Specifications Replacement Gasket Kits

| Model | Description |
|----------|---------------------------------------|
| BGP-2075 | 3/4" Pack of (6) incl. pads & O-rings |
| BGP-2100 | 1" Pack of (6) incl. pads & O-rings |
| BGP-2150 | 1.5" Pack of (6) incl. pads & O-rings |
| BGP-220 | 2" Pack of (6) incl. pads & O-rings |



Manually Operated Coupling Machine
(CMM-200)



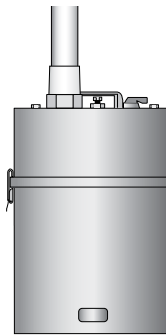
Pneumatic Coupling Machine
(CMP-200)

Electronic Coupling Machine (CME-0110, CME-0220 and CME-0110R)

The OPW Electronic Coupling Machine can couple the entire swivel and coax fitting line. Swage kits are required. The CME-0110R model is our Remote Electronic Coupling Machine. This machine comes with the hydraulics on the outside of the machine so pipe can be coupled in tight areas like inside a sump. All of the functions of the CME-0110 apply to this unit as well.

Manually Operated and Pneumatic Coupling Machines (CMM-200 and CMP-200)

The OPW Manually Operated and Pneumatic Coupling Machines can couple Stainless Steel (SSPFC), Swivel (SPC) and Double-Wall (DPC) fittings for 1.5" and 2" only. Swage kits are required.



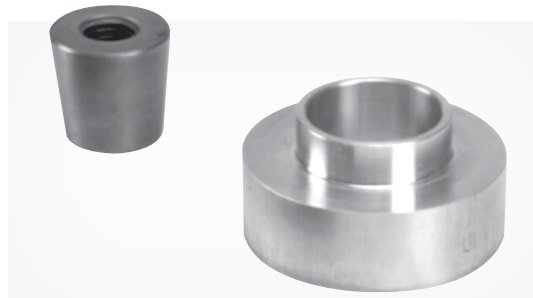
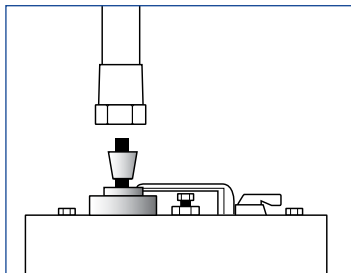
Electronic Coupling Machine
220 Volt: (CME-0220)
110 Volt: (CME-0110)
110 Volt, Remote (CME-0110R)

Installation Tools Coupling Machines

The OPW Coupling Machine is required for the installation of both coax and swivel pipe couplings. The Coupling Machine is designed to internally expand the metal pipe insert installed at the end of a flexible pipe section. Coupling machines are available in both 110 and 220 volt models. Coupling swage kits are available to couple both coax and swivel couplings for a variety of pipe sizes.

Ordering Specifications Coupling Machine

| Model | Application |
|-----------|------------------------------------|
| CME-0110R | Coupling Machine, 110 Volt, Remote |
| CME-0110 | Coupling Machine, 110 Volt |
| CME-0220 | Coupling Machine, 220 Volt |
| CMM-200 | Coupling Machine, Manual |
| CMP-200 | Coupling Machine, Pneumatic |



Ordering Specifications - Swage Kit

| Fitting Type & Model # | | Coupling Machine Model | | | | |
|----------------------------|------------------------|------------------------|-----------|-----------|-----------|-----------|
| | | CME-0110 | CME-0110R | CME-0220 | CMM-200 | CMP-200 |
| 3/4" Swivel (SPC-0075) * | | CSK-0075S | CSK-0075S | CSK-0075S | N/A | N/A |
| 1" Swivel (SPC-0100) * | | CSK-0100S | CSK-0100S | CSK-0100S | N/A | N/A |
| 1.5" Swivel (SPC-0150A) | Swage Kit Number | CSK-0150S | CSK-0150S | CSK-0150S | SBA2-0150 | SBA2-0150 |
| 1.5" DW Swivel (DPC-2150A) | | CSK-0150S | CSK-0150S | CSK-0150S | SBA2-0150 | SBA2-0150 |
| 2" Swivel (SPC-0200A) | | CSK-0200S | CSK-0200S | CSK-0200S | SBA2-0200 | SBA2-0200 |
| 2" DW Swivel (DPC-2200A) | | CSK-0200S | CSK-0200S | CSK-0200S | SBA2-0200 | SBA2-0200 |
| 3" Swivel (SPC-0300) | | CSK-0300S | CSK-0300S | CSK-0300S | N/A | N/A |

Swage Kits

Swages are used with the OPW Coupling Machine to internally expand the coupling onto the end of the flexible pipe section. There are a variety of coupling swage kits available to accommodate a variety of coupling types and sizes. NOTE: 3/4" and 1" swage kits adapt to the 1-1/2" swivel faceplate that comes standard with each coupling machine.

***IMPORTANT:** When coupling 3/4" and 1" pipe, use the faceplate for the CSK-0150S swage kit as a base for the CSK-0075S and the CSK-0100S swage kits.

Pipe Cutters & Jacket Strippers

The FlexWorks pipe cutter is designed to produce a clean and even pipe cut, which is necessary for proper coupling attachment. The FlexWorks Jacket Stripper is a tool used to remove a section of the secondary outer jacket of the FlexWorks Double-Wall piping. This is required for installation of swivel pipe couplings.

NOTE: When using double wall pipe couplings, do not trim piping secondary.



Pipe Cutter
(PTC3000)

Ordering Specifications - Pipe Cutter and Jacket Stripper

| Model # | Application |
|----------|-----------------------|
| SPC-400 | 4" Access Pipe Cutter |
| PTC-3000 | Pipe Cutter |

Fishing Bullnose

An attachment for the end of a flexible pipe section, used to aid in fishing the flexible pipe section through the access pipe. There are a variety of bullnoses available to connect to swivel couplings.

NOTE: 3/4" and 1" fishing bullnose are female threaded to accommodate 3/4" or 1" couplings.



Ordering Specifications - Fishing Bull Nose

| Model # | Application |
|----------|-----------------------|
| FBN-2075 | 3/4" Fishing Bullnose |
| FBN-2100 | 1" Fishing Bullnose |
| FBN-2150 | 1.5" Fishing Bullnose |
| FBN-2200 | 2" Fishing Bullnose |
| FBN-2300 | 3" Fishing Bullnose |

Urethane Sealant

An all-purpose sealant. Can be used as an entry fitting sealant as well as to bond dispenser tops.

Ordering Specifications - Urethane Sealant

| Model # | Application |
|---------|---------------------------------------|
| SL-1100 | Urethane Sealant (10.3 oz. Cartridge) |

OPW Offers a Variety of Tank Sump Models Made From Both Polyethylene and Fiberglass

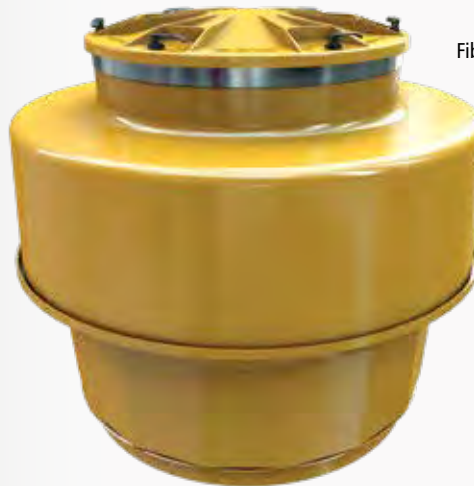
OPW tank sumps function as a liquid-tight isolation container providing secondary containment for the tanks fittings, valves, pumps and FlexWorks pipe fittings.

They also provide surface access to the tank itself, as well as a clean, dry environment for future services and maintenance. All tank sump models have height-adjustable risers to accommodate different tank burial depths. Each sump model has its own specific range of height adjustability and are fabricated and assembled at the job site.

ElectroTite Tank Sump



FibreTite Tank Sump



Polyethylene Tank Sump with Mechanically Fastened Cover



Is your site watertight?



Defining a new standard in water intrusion prevention.

If water intrusion is causing you headaches, turn to OPW for immediate relief. From the engineering labs of OPW, FLEXWORKS and FIBRELITE, we've taken the best of the best in containment and covers and made them even better. From our FibreTite family of tank and multiport sumps to our Fibrelite covers and EDGE™ Double Wall series spill containers, we offer the world's most reliable watertight products on the market. Stop water intrusion once and for all.

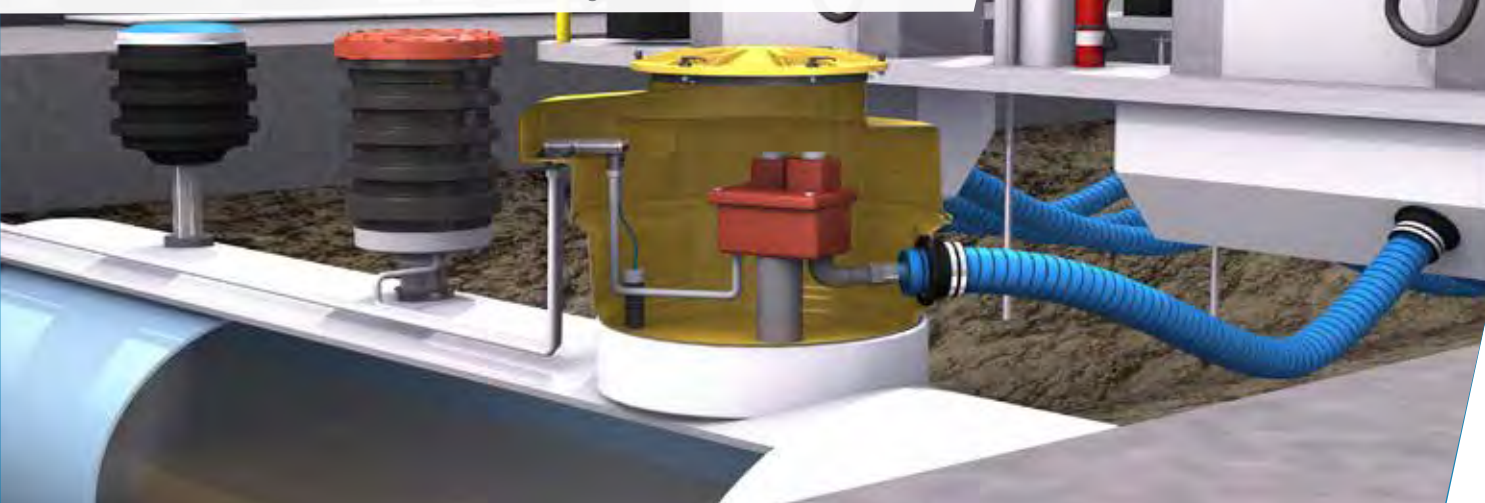
Learn how by visiting www.opwglobal.com/watertight-wonders today.





NO DRILL DRY SUMP TECHNOLOGY*

*Patent Pending



Factory Installed
No On-Site Drilling*

*Patent Pending



Conduit Threads
On Outside of Box*

*Patent Pending



UL Listed Explosion-Proof
Junction Box*

*Patent Pending

NO DRILL | WIRE READY | WATER TIGHT

- Eliminates electrician cutting holes in sump
- Easy inspection without entering confined sump area
- Available in a wide variety of models to accommodate virtually any tank sump application
- Kwik Wire™* junction box allows for high voltage STP and low voltage sensor wires in same box. *Patent Pending
- Sealed conduits above water table
- No conduit entry fittings

Please contact your OPW District Manager to order or request more information.
Visit us at www.opwglobal.com/electrotite

ElectroTite Tank Sump

Introducing the latest OPW tank sump innovation from the engineering labs of FLEXWORKS and FIBRELITE. ElectroTite is the most watertight system on the market. It ships factory installed with conduit ports and electrical wiring box – eliminating unnecessary tank sump leak points at site installation. No drill, no water, no sweat.

Materials:

Sump: Resin Transfer Molding (RTM) technology



Uses built-in electrical seal-offs

ElectroTITE
NO DRILL DRY SUMP TECHNOLOGY*
*Patent Pending

Features & Benefits:

Water Tight:

- ◆ Reduces the number of entry and leak points into sump
- ◆ Sealed conduit threads on outside of sump – enter above water table
- ◆ Factory installed fitting with proper torque guns, cutting tools and sealing compound

Versatile for Your Installation:

- ◆ UL Listed Explosion-Proof junction box allows space to re-route communication wires and loop additional sensors without entering sump
- ◆ Shield allows for high voltage and sensor wires to be separated in the same box
- ◆ Conduits can be potted entering box, exiting box, or both using built-in electrical seal-offs

- ◆ UL Listed Explosion-proof box is single-piece cast aluminum, with bolt-on access cover

Factory Installed:

- ◆ Eliminates the need to cut holes in sump for conduits
- ◆ No field-installed conduit penetrations

FXSX - X - XXXXXX

FCS = FibreTite Conduit Sump

M = Medium bury

Only available on FCS

42 = 42" Sump Base Diameter

33 = 33" Sump Lid Diameter (WT-33)

CR = Collar Ring Mount

FTS = FibreTite Tank Sump

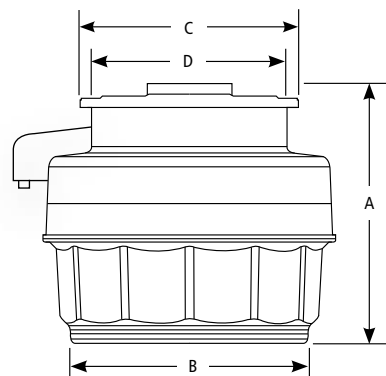
D = Deep bury

1 = One ElectroTite Conduit Box
2 = Two ElectroTite Conduit Boxes

48 = 48" Sump Base Diameter

37 = 37" Sump Lid Diameter (WT-37)

SB = Solid Bottom



Ordering Specs

| Model Number | Sump Base Diameter (B) | Max Sump Height (A) | Minimum Sump Height (A) | Sump Mount Design | Sump Lid Diameter (C) | Minimum Diameter Opening (D) | # of Conduit Boxes |
|---------------|------------------------|---------------------|-------------------------|-------------------|-----------------------|------------------------------|--------------------|
| FCSM-1-4233CR | 42" | 46" | 39" | Collar Ring Mount | 34.8" | 29" | Single |
| FCSM-1-4233SB | 42" | 46" | 39" | Solid Bottom | 34.8" | 29" | Single |
| FCSD-1-4233CR | 42" | 53" | 47" | Collar Ring Mount | 34.8" | 29" | Single |
| FCSD-1-4233SB | 42" | 53" | 47" | Solid Bottom | 34.8" | 29" | Single |
| FCSM-2-4233CR | 42" | 46" | 39" | Collar Ring Mount | 34.8" | 29" | Dual |
| FCSM-2-4233SB | 42" | 46" | 39" | Solid Bottom | 34.8" | 29" | Dual |
| FCSD-2-4233CR | 42" | 53" | 47" | Collar Ring Mount | 34.8" | 29" | Dual |
| FCSD-2-4233SB | 42" | 53" | 47" | Solid Bottom | 34.8" | 29" | Dual |
| FCSM-1-4837CR | 48" | 46" | 39" | Collar Ring Mount | 39.5" | 34.6" | Single |
| FCSD-1-4837CR | 48" | 53" | 47" | Collar Ring Mount | 39.5" | 34.6" | Single |
| FCSM-2-4837CR | 48" | 46" | 39" | Collar Ring Mount | 39.5" | 34.6" | Dual |
| FCSD-2-4837CR | 48" | 53" | 47" | Collar Ring Mount | 39.5" | 34.6" | Dual |

Replacement Parts

| Part Number | Sump Base Diameter |
|---------------|---------------------------------------|
| FTSMBASE-42CR | 42" Medium Bury Collar Mount Base |
| FTSMBASE-42SB | 42" Medium Bury Solid Bottom Base |
| FTSDBASE-42CR | 42" Deep Bury Solid Collar Mount Base |
| FTSDBASE-42SB | 42" Deep Bury Solid Bottom Base |
| FTSMBASE-48CR | 48" Medium Bury Collar Mount |
| FTSDBASE-48CR | 48" Deep Bury Collar Mount |
| FTS-4233TH | Top Hat for 42" Base Sump and 33" Lid |

| Part Number | Sump Base Diameter |
|-------------|---------------------------------------|
| FTS-4237TH | Top Hat for 42" Base Sump and 37" Lid |
| FTS-4837TH | Top Hat for 48" Base Sump and 37" Lid |
| WT-33SL | 33" Fibretite Sump Lid |
| WT-37SL | 37" Fibretite Sump Lid |
| FCS42-EX12 | 42" Diameter Sump 12" Extension |
| FCS48-EX12 | 48" Diameter Sump 12" Extension |

FibreTite Tank Sump

From the engineering labs of FLEXWORKS and FIBRELITE, OPW has made the best even better. Meet the newest member of the FibreTite Family of sumps, the most watertight sumps on the market today. Designed to meet all the new 2018 EPA UST regulations.

Materials:

Sump: Resin Transfer Molding (RTM) technology



FibreTITE
TANK SUMP

Features & Benefits:

- ◆ The only sump manufactured using superior Resin Transfer Molding (RTM) technology. The RTM process utilizes a 2-sided mold to ensure consistent wall thickness and exceptionally smooth wall surfaces inside and out for an ultra-tight entry fitting sealing surface
- ◆ 2-piece top hat design allows for tailored height adjustments
- ◆ Inverted U-Channel allows for equal resin distribution, creating a superior bond between the base and the top hat to eliminate water intrusion
- ◆ Stainless steel ring and watertight sealing gasket provide the proven seal-ability of our world renowned Fibrelite sumps
- ◆ Available with and without bottom for collar or flange mounting
- ◆ Ergonomic "L-Handle" Provides Ease of Use and a visual indicator that the handle is in the locked position and the watertight lid is secure

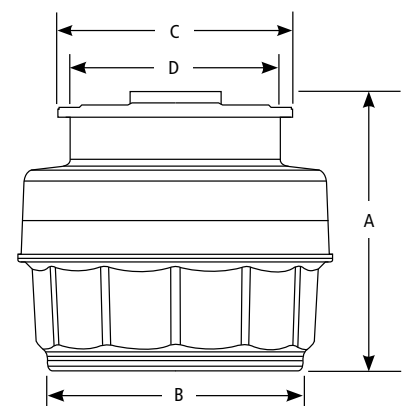
Ordering Specifications - Tank Sump Systems

| | New Name | Sump Base Diameter (B) | Max Sump Height (A) | Min Sump Height (A) | Sump Mount Design | Sump Lid Diameter (C) | Minimum Diameter Opening (D) | Additional RK-5000 Resin Kits Needed for Top Hat Attachment (Sold Separately) | Additional RK-5000 Resin Kits Needed for Collar Ring Attachment (Sold Separately) |
|-----|-------------|------------------------|---------------------|---------------------|-------------------|-----------------------|------------------------------|---|---|
| 42" | FTSM-4233CR | 42" | 46" | 33.5" | Collar Ring Mount | 33" | 29" | 1 | 1 |
| | FTSM-4233SB | 42" | 46" | 33.5" | Solid Bottom | 33" | 29" | 1 | - |
| | FTSD-4233CR | 42" | 53" | 40.5" | Collar Ring Mount | 33" | 29" | 1 | 1 |
| | FTSD-4233SB | 42" | 53" | 40.5" | Solid Bottom | 33" | 29" | 1 | - |
| | FTSM-4237CR | 42" | 46" | 33.5" | Collar Ring Mount | 37" | 34.6" | 1 | 1 |
| | FTSM-4237SB | 42" | 46" | 33.5" | Solid Bottom | 37" | 34.6" | 1 | - |
| | FTSD-4237CR | 42" | 53" | 40.5" | Collar Ring Mount | 37" | 34.6" | 1 | 1 |
| | FTSD-4237SB | 42" | 53" | 40.5" | Solid Bottom | 37" | 34.6" | 1 | - |
| 48" | FTSM-4837CR | 48" | 46" | 33.5" | Collar Ring Mount | 37" | 34.6" | 1.5 | 1 |
| | FTSD-4837CR | 48" | 53" | 40.5" | Collar Ring Mount | 37" | 34.6" | 1.5 | 1 |
| | FTSM-4837SB | 48" | 46" | 33.5" | Solid Bottom | 37" | 34.6" | 1.5 | - |
| | FTSD-4837SB | 48" | 53" | 40.5" | Solid Bottom | 37" | 34.6" | 1.5 | - |

Replacement Parts/Accessories

| Part # | Description |
|---------------|---------------------------------------|
| FTSMBASE-42CR | 42" Medium Bury Collar Mount |
| FTSMBASE-42SB | 42" Medium Bury Solid Bottom |
| FTSDBASE-42CR | 42" Deep Bury Solid Bottom |
| FTSDBASE-42SB | 42" Deep Bury Solid Bottom |
| FTSDBASE-48SB | 48" Medium Bury Collar Mount |
| FTSDBASE-48CR | 48" Deep Bury Collar Mount |
| FTS-4233TH | Top Hat for 42" Base Sump and 33" Lid |
| FTS-4237TH | Top Hat for 42" Base Sump and 37" Lid |
| FTS-4837TH | Top Hat for 48" Base Sump and 37" Lid |

| Part # | Description |
|------------|---|
| WT-33SL | 33" Fibretite Sump Lid |
| WT-37SL | 37" Fibretite Sump Lid |
| FCS42-EX12 | 42" Diameter Sump 12" Extension (1 RK-5000 kit needed for attachment sold separately) |
| FCS48-EX12 | 48" Diameter Sump 12" Extension (1.5 RK-5000 kit needed for attachment sold separately) |
| RK-5000 | 1 Quart Epoxy Resin Kit |
| S-CR-FGK | Optional Glassing Kit for Collar Ring Attachment |



Old Style Fibrelite and FlexWorks Fiberglass Sumps

Materials

Body: Fiberglass



Ordering Specifications - Sump Accessories

| Part # | Application |
|-------------|--|
| WSP-WTS-OPC | 6" Nitrile Observation Port Cap for WSP |
| WTS-CAP-14 | 14" Nitrile Container Port Cap for WSP |
| WS-RING-31 | 31" Stainless Steel Retaining Ring for Top-Hat |
| WS-RING-33 | 33" Stainless Steel Retaining Ring for Top-Hat |
| WS-RING-37 | 37" Stainless Steel Retaining Ring for Top-Hat |
| 212199 | L Style Replacement Sump Lid Handle |
| WTS-THANDLE | T Style Replacement Sump Lid Handle |



Ordering Specifications New Latched Fiberglass Tank Sump Lids

| Part # | Description |
|---------|--------------------------------------|
| CLC-33 | Latched Fiberglass Tank Sump Lid |
| LRK-CLC | Latch Replacement Kit for the CLC-33 |



Ordering Specifications - Turbine Sump Watertight Cover Lids

| Part # | Application | Dia. | Weight (lbs) |
|--------|--|------|--------------|
| WT-31 | 31" Dia. Watertight, Structural Spill Platform | 31" | 11 |
| WT-33 | 33" Dia. Watertight, Structural Spill Platform | 33" | 13 |
| WT-37 | 37" Dia. Watertight, Structural Spill Platform | 37" | 17 |

Replacement Parts and Accessories

| Part # | Description |
|---------|----------------------------------|
| H13257M | Knob |
| D02238 | Cover |
| H13214M | Seal |
| D02223 | Sump Top Assembly for TSMDf-4536 |
| CLC-33 | Latched Fiberglass Tank Sump Lid |

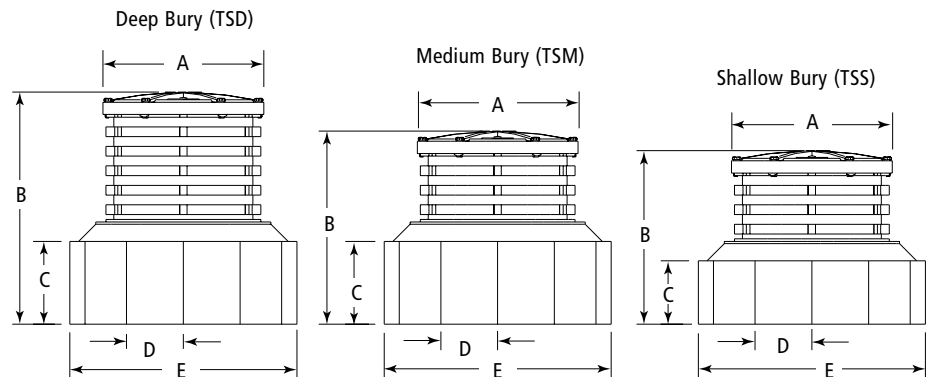
Polyethylene Tank Sumps with Mechanically Fastened Covers

Features & Benefits:

- ◆ **Long-Term Watertight Performance/Strength & Rigidity** – one-piece design provides reliable watertight integrity and long product life. Designed to resist deformation under burial and high water table forces
- ◆ **Installation Flexibility** – multiple flats provide maximum area for locating pipe entries
- ◆ **Easy Field Height Adjustability** – the special ribbed height adjustment design makes adjustments to finished grade, if necessary, quick and easy

Replacement Parts & Accessories

| Part # | Description |
|---------|----------------------------------|
| H13257M | Knob (each) |
| H13971 | Knob Kit (6 Pack) |
| H13213M | Bracket |
| H13214M | Seal 33" (838 mm) |
| H13215M | Seal 39" (991 mm) |
| C04420M | Ring 33" (838 mm) |
| C04432M | Ring 39" (991 mm) |
| D02025M | Cover 33" (838 mm) |
| D02034M | Cover 39" (991 mm) |
| CLC-33 | Latched Fiberglass Tank Sump Lid |



Ordering Specifications - Polyethylene Tank Sumps (with Mechanically Fastened Covers)

| Part # | Application | Dimensions | | | | | | | | | | Sump Base Burial Depth | | | | Weight | | |
|----------|-----------------------------------|-------------|-------|---------|-----|----------|-------|-------------|-----------|---------------|--------|------------------------|------|-------|------|--------|------|----|
| | | Manway Dia. | | A Cover | | B Height | | C x D Panel | | No. of Panels | E Base | | max. | | min. | | lbs. | kg |
| | | in. | mm | in. | mm | in. | mm | in. | mm | | in. | mm | in. | mm | in. | mm | | |
| TSS-4536 | Tank Sump Shallow Bury, 36" x 45" | 36 | 914 | 33 | 838 | 34 | 864 | 12 x 12 | 305 x 305 | 12 | 45 | 1,143 | 39 | 991 | 28 | 711 | 84 | 38 |
| TSM-4536 | Tank Sump Medium Bury, 36" x 45" | 36 | 914 | 33 | 838 | 39 | 991 | 17 x 12 | 432 x 305 | 12 | 45 | 1,143 | 44 | 1,118 | 33 | 838 | 86 | 40 |
| TSM-4842 | Tank Sump Medium Bury, 42" x 48" | 42 | 1,066 | 39 | 991 | 39 | 991 | 17 x 11 | 423 x 279 | 14 | 48 | 1,219 | 44 | 1,118 | 33 | 838 | 88 | 40 |
| TSD-4536 | Tank Sump Deep Bury, 36" x 45" | 36 | 914 | 33 | 838 | 51 | 1,295 | 17 x 11 | 423 x 279 | 14 | 48 | 1,219 | 56 | 1,422 | 33 | 838 | 90 | 41 |
| TSD-4842 | Tank Sump Deep Bury, 42" x 48" | 42 | 1,067 | 39 | 991 | 51 | 1,295 | 17 x 11 | 432 x 279 | 14 | 48 | 1,219 | 56 | 1,422 | 33 | 838 | 92 | 42 |



6" Tank Fitting Adaptor (SMF-6)
4" Tank Fitting Adaptor (SMF-4E)



4" Tank Fitting Adaptor –
No Bolt Style (TFA-4090)



Tank Manway Adaptor
(TMA-2224) (TMA-2424)



4" Sump Inspection Port
(SIP-4) Includes Urethane Sealant
(SL-1100)

Ordering Specifications - Tank Fitting Adaptor

| Part # | Application |
|----------|--|
| TFA-4090 | 4" Tank Fitting Adaptor, No Bolt Style |
| SMF-4E | 4" Tank Fitting Adaptor, Bolt Style |
| SMF-4EFT | 4" Tank Fitting Adaptor, Bolt Style, Extended Flange |
| SMF-6 | 6" Tank Fitting Adaptor, Bolt Style |

Ordering Specifications - Tank Manway Adaptor

| Part # | Application |
|----------|-------------------------------|
| TMA-2224 | Tank Manway Adaptor (22 inch) |
| TMA-2424 | Tank Manway Adaptor (24 inch) |

Ordering Specifications - Sump Inspection Port

| Part # | Application |
|--------|-------------------------|
| SIP-4 | 4" Sump Inspection Port |

Tank Sump Mounting Flanges

FlexWorks tank sump mounting flanges are used to mount FlexWorks tank sumps to 4" and 6" underground storage tank bung fittings. Flange top models (SMF-6) provide added flexibility in positioning of pump or extractor outlets. First, the riser or extractor is threaded into the top flange. The top flange is then oriented and bolted to the mounting flange.

Our No-Bolt style mounting flange, model TFA-4090, is also used to mount FlexWorks tank sumps to 4" underground storage tank bung fittings and attaches to the bottom of the sump base to provide a secure and liquid tight connection. This model has compression studs for added stability and fast and easy installation with a socket wrench.

Tank Manway Adaptors

FlexWorks Tank Manway Adaptors are used to mount tank sumps to a tank's outward flanged manway. This adaptor attaches to the tank's manway and compresses the fabricated sump base and gasket between two steel compression rings.

Sump Inspection Ports

FlexWorks optional sight glass kits include urethane sealant (SL-1100).

ABOVE GROUND, BELOW GROUND & What's in Between.



Equipment is just the beginning of our full-service promise for fueling stations. Our integrated, plug-and-play piping system, underground containment products and above ground hanging hardware dispensing solutions provide unmatched performance. These products are supported from your team at OPW and a dedicated network of channel partners. See how these pieces fit together for your fueling station.



DEFINING | WHAT'S NEXT

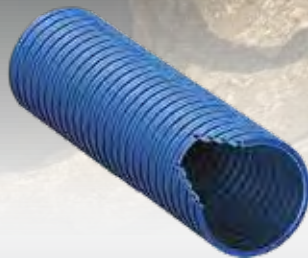


The state-of-the-art **Loop System** is made possible by a collection of completely integrated, environmentally secure components. These pre-fabricated, factory-assembled pieces translate into dramatically less field labor, associated cost and potential for installation errors. Total underground access once installed provides hassle-free inspection, maintenance and repair without excavation. Learn more about each of the contributing parts.



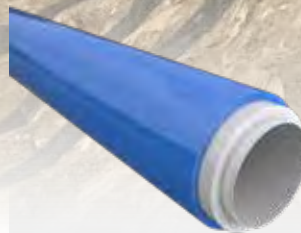
ELECTROTITE TANK SUMPS

- Eliminate the need to cut holes in sump for conduits
- Reduce the number of entry and leak points
- Allow space to re-route communication wires and loop additional sensors without entering sump
- Integrated factory-installed junction box for seal-offs and wiring connections



DUAL-LAYER ACCESS PIPES

- Resist crushing
- Add extra layer of protection
- Allow for easy maintenance, repair, removal and replacement without breaking concrete



UL 971-LISTED COAXIAL PIPES

- Easy installation
- Eliminate leak points and exposed joints and fittings buried in the ground
- Do not require adhesives, glues or welding



DUAL-SIDED RIGID ENTRY FITTINGS


- Provide double containment protection
- Prevent groundwater intrusion
- Eliminate contamination between sump and access pipe
- Designed for long-term exposure inside sump

**Variety of Options
Available**

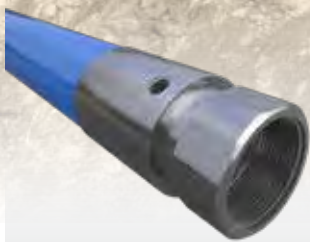
**Available in
4" and NEW 6"**

**Available in .75", 1",
1.5", 2" and NEW 3"**

**Available in 1.5",
2" and NEW 3"**



The Loop System contains fewer parts to stock and install



DOUBLE-WALL PIPE COUPLINGS (DPC)

- Eliminate need for rubber test boot
- No trimming back secondary jackets
- Allow for continuous monitoring
- Stainless-steel construction compatible with all fuel brands

Available in 1.5",
2" and NEW 3"



10 PLUS EMERGENCY VALVES

- Protect against low-impact fractures in the shear groove
- Eliminate contamination and fire hazards created by leaks from fractured valves

Available in
1.5" and NEW 2"



PRE-FABRICATED QUICK-COUPLE DISPENSER SUMPS

- Easy to spec
- Quick access for maintenance
- Fast and simple installation
- Pre-assembled at factory

Variety of Options
Available



NEW

HiFLO DISPENSER SUMPS

- Handle HiFlo applications, such as retail truck stops.
- Accommodate fuel dispensing on both sides of truck
- New sizes to handle more demanding throughput

Variety of Options
Available

The Loop System™ Ordering Guide



Loop System Dispenser Sumps are shipped complete with factory installed pipe entry fittings, OPW 10Plus Shear Valves, and Stabilizer Bars. Each Dispenser Sump has been assigned a custom Sump Configuration Number based on the number and position of pipe entries into the sump. Each Sump Product Number reflects this configuration number as well as materials used and for the application needed. The guide below explains the Product Number in detail.

Benefits

- 50% Faster Installation Times
- 100% Accessible No Breaking Concrete
- Double Containment Protection
- Completely Testable
- End-to-End Monitoring
- Fewer Parts to Stock and Install



For high-flow applications, see HiFlo Ordering Guide on page 7.

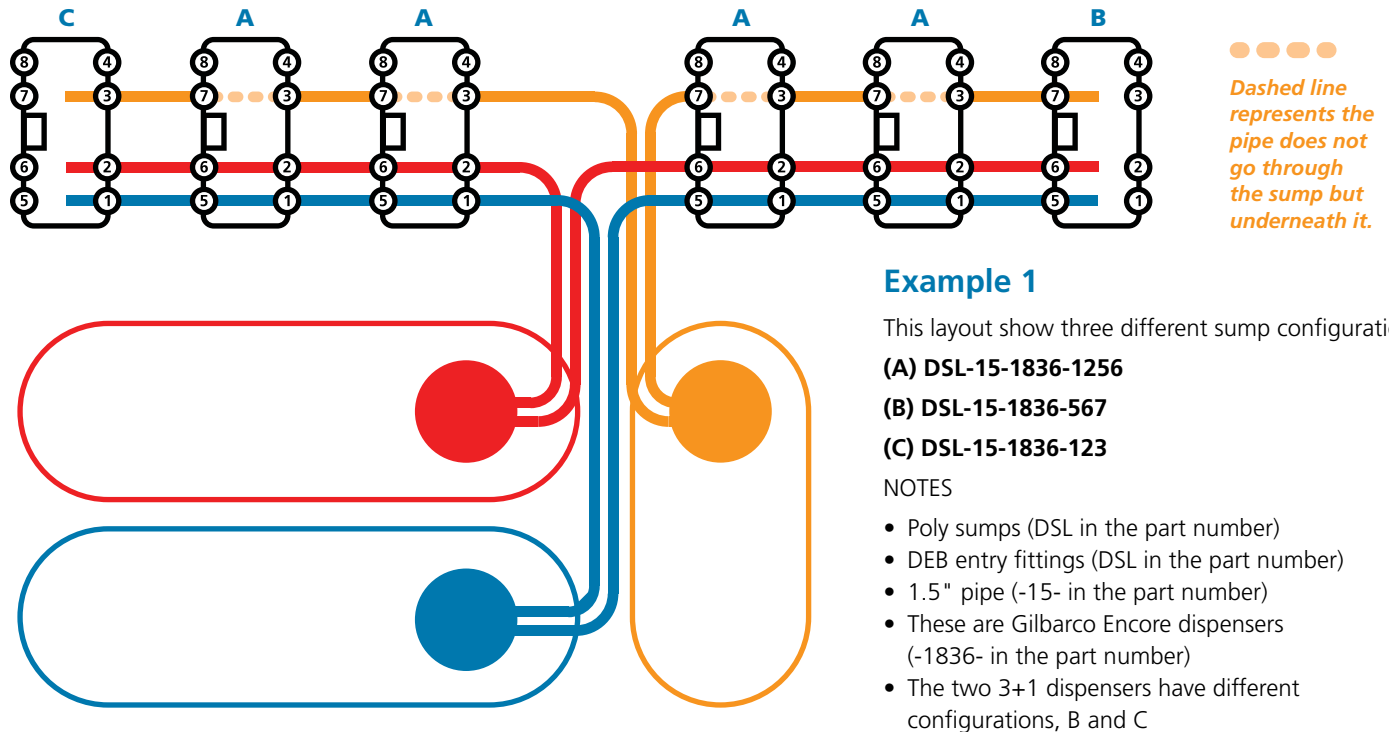
Ordering Guide

| DSL(F)(NR)(-DW*) | | | | |
|--|--|--|--|--|
| Dispenser Loop Sump | Dispenser Sump Loop | Pipe Size | Dispenser Styles | Piping Penetrations |
| DSL = DPC Fittings, Poly Box DSL F = DPC Fittings, Fiberglass Box | N = SBC Fittings R = REF Fittings NR = SBC w/ REF | 15 = 1.5" piping 20 = 2.0" piping | 1543 = Wayne Ovation 1543B = Bennet Pacific 1836 = Gilbarco Encore 1741 = Wayne Helix 1741E85 = Wayne Helix E85 | *See piping configuration guides following |

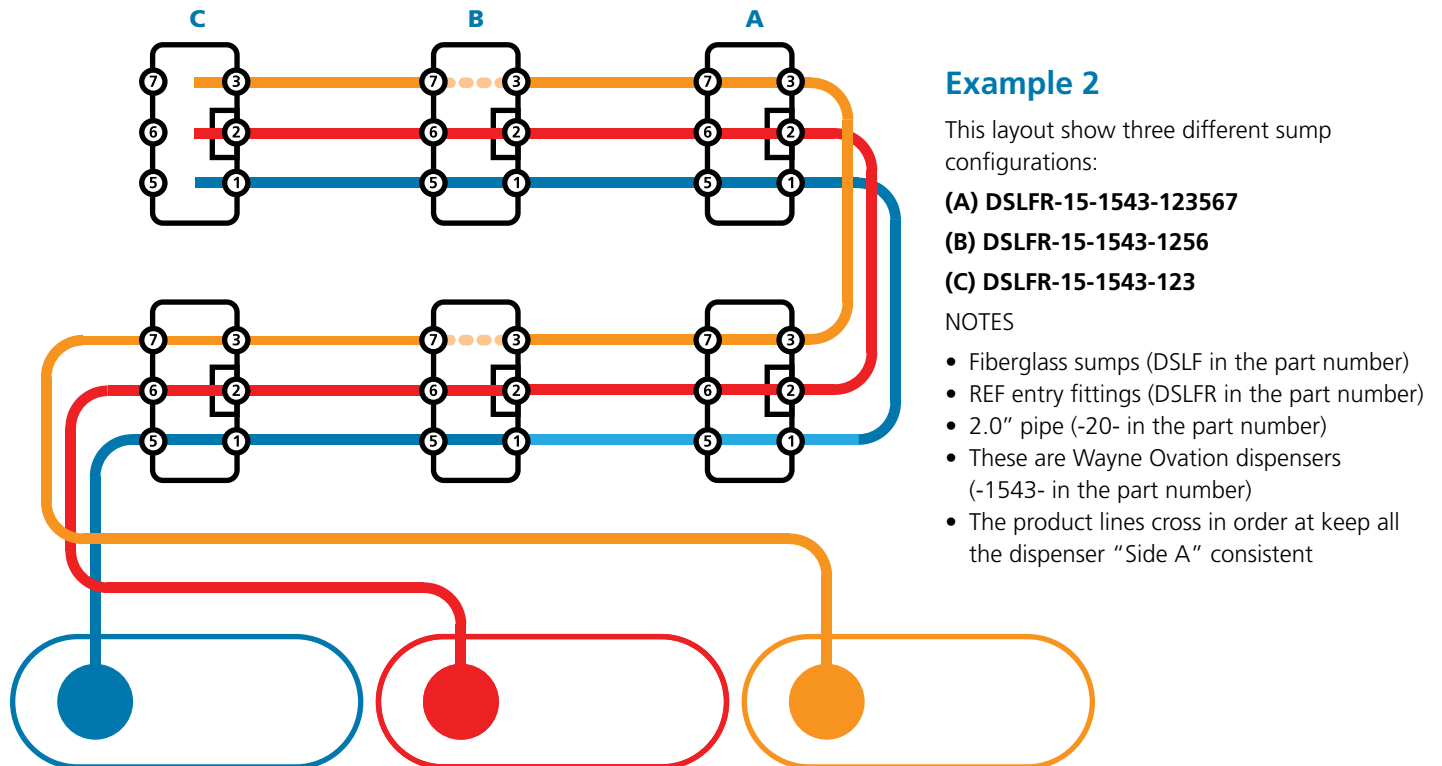
(-DW*) Double-wall loop offered on select models. Please contact customer service.

The Loop System™ Ordering Guide

Forecourt Examples



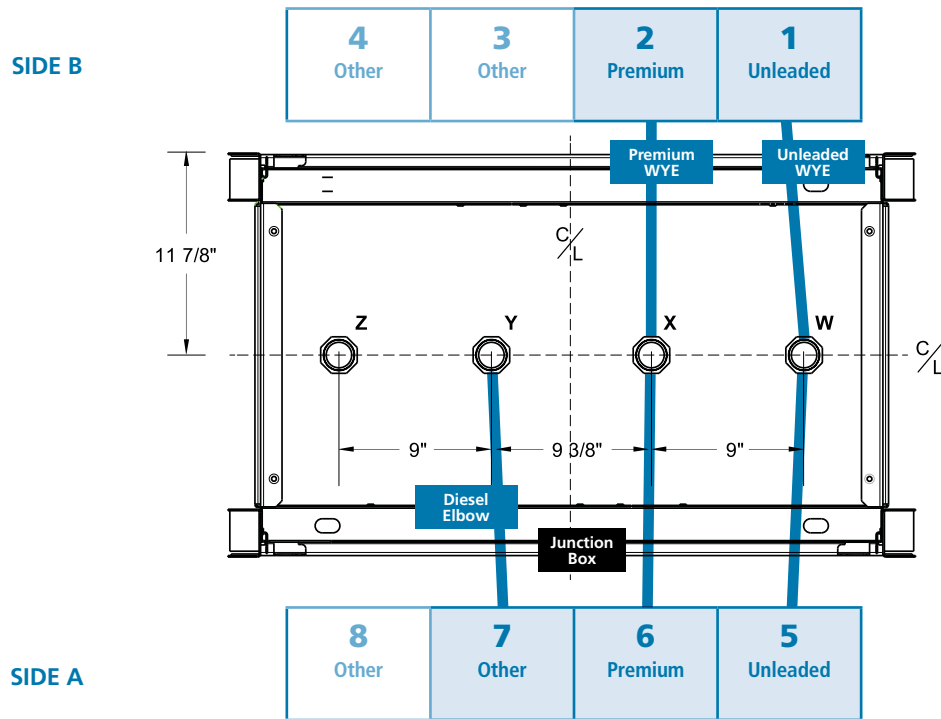
CONTACT CUSTOMER SERVICE FOR CUSTOM CONFIGURATIONS



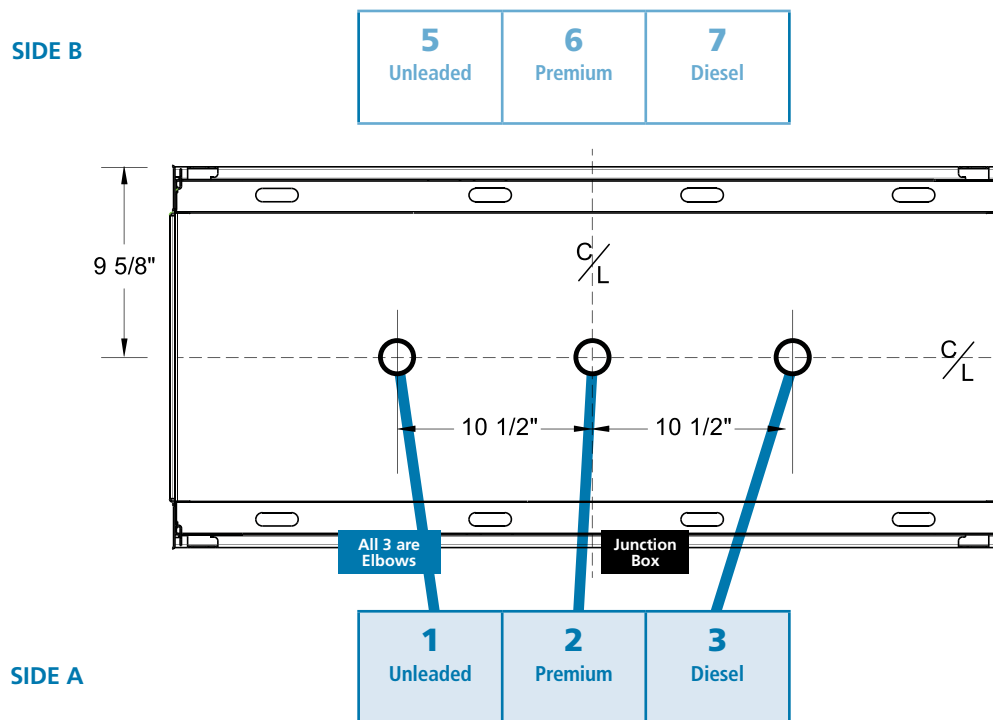
CONTACT CUSTOMER SERVICE FOR CUSTOM CONFIGURATIONS

The Loop System™ Ordering Guide

Gilbarco Encore



Wayne Ovation



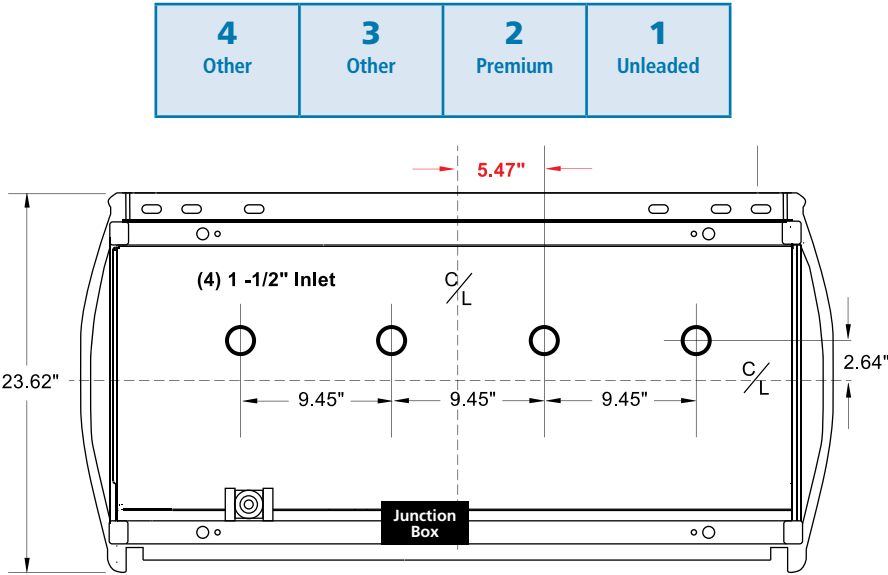
TOP VIEW OF BASES

The Loop System™ Ordering Guide



Wayne Helix

SIDE B

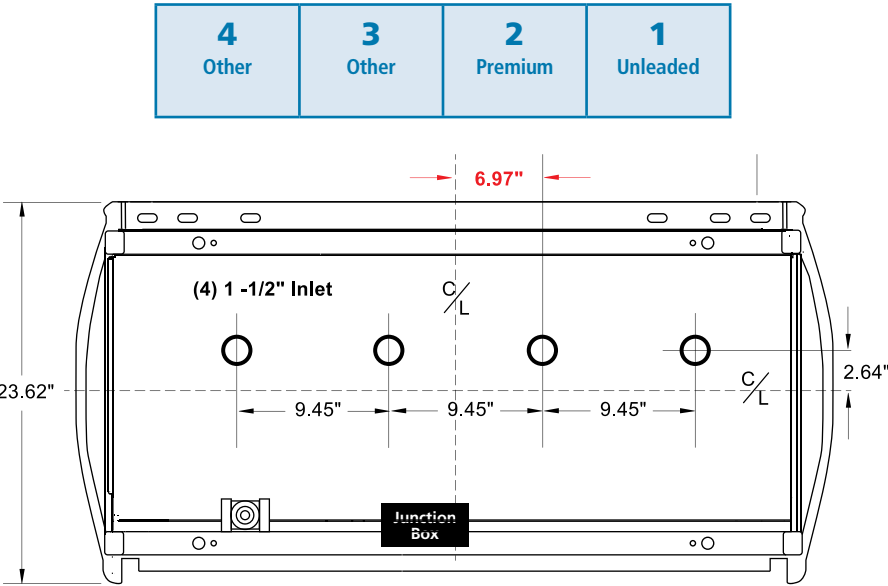


SIDE A



Wayne Helix E85

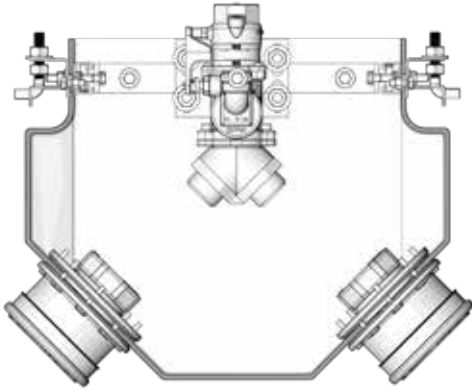
SIDE B



SIDE A

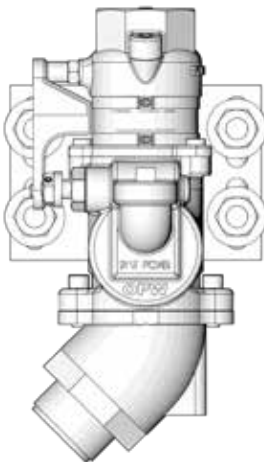


TOP VIEW OF BASES

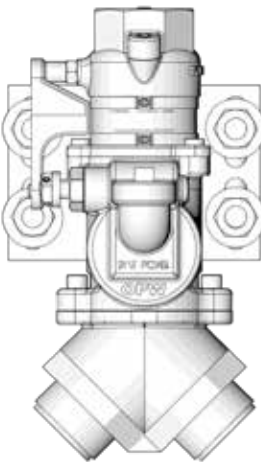


Loop Replacement Parts

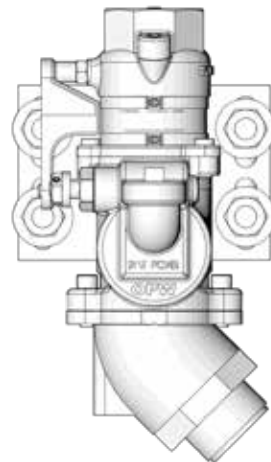
| Part # | Threads | Thread Size | Description |
|--------------|---------|-------------|---|
| SVD-1522 | NPSH | 1.5" | Double poppet shear valve, Junction fitting and Mounting Plate |
| SVD-1522E85 | NPSH | 1.5" | E-85 Double poppet shear valve, Junction fitting and Mounting Plate |
| SVD-1522N | NPT | 1.5" | Double poppet shear valve, Junction fitting and Mounting Plate |
| SVD-2022 | NPSH | 2.0" | Double poppet shear valve, Junction fitting and Mounting Plate |
| SVD-2022E85 | NPSH | 2.0" | Double poppet shear valve, Junction fitting and Mounting Plate |
| SVD-2022E85 | NPSH | 2.0" | Double poppet shear valve, Junction fitting and Mounting Plate |
| SVD-2022N | NPT | 2.0" | Double poppet shear valve, Junction fitting and Mounting Plate |
| SVD-2522 | NPSH | 1.5" x 2" | Double poppet shear valve, Junction fitting and Mounting Plate |
| SVD-1524L | NPSH | 1.5" | Double poppet shear valve, Elbow and Mounting Plate |
| SVD-1524E85L | NPSH | 1.5" | E-85 Double poppet shear valve, Elbow and Mounting Plate |
| SVD-1524NL | NPT | 1.5" | Double poppet shear valve, Elbow and Mounting Plate |
| SVD-2024L | NPSH | 2.0" | Double poppet shear valve, Elbow and Mounting Plate |
| SVD-2024E85L | NPSH | 2.0" | E-85 Double poppet shear valve, Elbow and Mounting Plate |
| SVD-2024NL | NPT | 2.0" | Double poppet shear valve, Elbow and Mounting Plate |
| SVD-1524R | NPSH | 1.5" | Double poppet shear valve, Elbow and Mounting Plate |
| SVD-1524E85R | NPT | 1.5" | Double poppet shear valve, Elbow and Mounting Plate |
| SVD-1524NR | NPT | 1.5" | Double poppet shear valve, Elbow and Mounting Plate |
| SVD-2024E85R | NPSH | 2.0" | Double poppet shear valve, Elbow and Mounting Plate |
| SVD-2024NR | NPT | 2.0" | E-85 Double poppet shear valve, Elbow and Mounting Plate |
| SVD-2024R | NPSH | 2.0" | Double poppet shear valve, Elbow and Mounting Plate |
| 10RPLUS-0152 | | | 1.5" 10 PLUS Replacement top, Double Poppet |
| 10RPLUS-0202 | | | 2" 10 PLUS Replacement top, Double Poppet |



SVD - XX24L



SVD - XX22



SVD - XX24R

Ordering Specifications - FlexWorks Dispenser Sump Selection Chart

| Dispenser Manufacturer & Model | | Dispenser Footprint Dimensions | | FlexWorks One-Piece Polyethylene Sump | FlexWorks Wide-Access Polyethylene Sump | FlexWorks One-Piece Polyethylene Pan | FlexWorks One-Piece Fiberglass Sump | FlexWorks Wide-Access Fiberglass Sump | Stabilizer Bar Kit |
|---|---|--|----------|---------------------------------------|---|--------------------------------------|-------------------------------------|---------------------------------------|--------------------|
| GILBARCO | | in. | cm | | | | | | |
| Commercial 625, 650, 684 Series (21" / 53" cm Frame) | | 15 ¹¹ / ₁₆ " x 21" | 40 x 53 | DS-1117F | --- | DP-1117F | --- | --- | SBK-1100J |
| Salesmaker-2 Series (21" / 53 cm Frame) | | 15 ¹¹ / ₁₆ " x 21" | 40 x 53 | DS-1117F | --- | DP-1117F | --- | --- | SBK-1100J |
| Highline 11B Series (21" Frame / 53 mm) | | 15 ¹¹ / ₁₆ " x 21" | 40 x 53 | DS-1117F | --- | | --- | --- | SBK-1100J |
| Highline 111B Series (27" / 69 cm Frame) | | 15 ¹¹ / ₁₆ " x 27" | 40 x 53 | DS-1123F | DSW-1123F | DP-1123F | --- | --- | SBK-1100J |
| Trimline 251, 252, 261, 262 (27" / 69 cm Frame) | | 15 ¹¹ / ₁₆ " x 27" | 40 x 69 | DS-1123F | DSW-1123F | DP-1123F | --- | DSF-1123F | SBK-1100J |
| Trimline 154, 164, 251, 262 (27" / 69 cm Frame) | | 15 ¹¹ / ₁₆ " x 21" | 40 x 69 | DS-1117F | --- | --- | --- | --- | SBK-1100J |
| Commercial 650 Series (27" / 69 cm Frame) | | 15 ¹¹ / ₁₆ " x 27" | 40 x 69 | DS-1123F | DSW-1123F | DP-1123F | --- | DSF-1123F | SBK-1100J |
| Highline Salesmaker Series | | 15 ¹¹ / ₁₆ " x 21" | 40 x 69 | DS-1117F | --- | DP-1117F | --- | --- | SBK-1100J |
| Highline Salesmaker Series (27" / 69 cm Frame) | | 15 ¹¹ / ₁₆ " x 27" | 40 x 69 | DS-1123F | DSW-1123F | DP-1123F | --- | DSF-1123F | SBK-1100J |
| Salesmaker-4 Series (27" / 69 cm Frame) | | 15 ¹¹ / ₁₆ " x 27" | 40 x 69 | DS-1123F | DSW-1123F | DP-1123F | --- | DSF-1123F | SBK-1100J |
| Legacy Series | | 15 ¹¹ / ₁₆ " x 27" | 40 x 69 | DS-1123F | DSW-1123F | DP-1123F | --- | DSF-1123F | SBK-1100J |
| Encore Series |  | 23 ¹ / ₂ " x 40 ⁹ / ₁₆ " | 60 x 103 | DS-1836 | DSW-1836 DSW-1836CL | DP-1836 | FDS-4021 | DSF-1836 DSF-1836C | SBK-1800* |
| Advantage (36" / 91 cm Frame Models) | | 21 ¹ / ₂ " x 36" | 55 x 91 | DS-1630 | DSW-1630 | DP-1630 | --- | DSF-1630 | SBK-1600 |
| Quad or Dual | | --- | --- | --- | --- | --- | --- | --- | --- |
| Blender X + O (36" / 91 cm) | | --- | --- | --- | --- | --- | --- | --- | --- |
| Advantage (48" / 122 cm Frame Models) | | 21 ¹ / ₂ " x 48" | 55 x 122 | DS-1642 | --- | --- | --- | --- | SBK-1600* |
| Blender Six-Hose | | --- | --- | --- | --- | --- | --- | --- | --- |
| Blender Single-Hose | | --- | --- | --- | --- | --- | --- | --- | --- |
| Blender X + O (48" / 122 cm) or X + 1 (48" / 122 cm) | | --- | --- | --- | --- | --- | --- | --- | --- |
| MPD-1, MPD-2, MPD-3 | | 16" x 48" | 41 x 122 | DS-1036 | --- | --- | --- | --- | SBK-1000J |
| MPD Fixed Blender | | 16" x 48" | 41 x 122 | DS-1036 | --- | --- | --- | --- | SBK-1000J |
| | | --- | --- | --- | --- | --- | --- | --- | --- |
| BENNETT | | | | | | | | | |
| Bennett Pacific |  | 19 ¹ / ₂ " x 43 ¹ / ₂ " | 49 x 110 | DS-1543A | --- | --- | --- | --- | SBK-1500 |
| Bennett 3000 Series | | 20" x 30" | 51 x 76 | DS-1123B | --- | --- | --- | --- | SBK-1100J |
| | | | | | | | | | |
| PD MCLAREN | | | | | | | | | |
| RDR HSx (Single Product, Single Hose) | | 21" x 17.75" | 53 x 45 | --- | DSW-1922 | --- | --- | --- | SBK-1900 |
| RDR HSx-D1 (Single Product, Dual Hose) | | 21" x 17.75" | 53 x 45 | --- | DSW-1922 | --- | --- | --- | SBK-1900 |
| RDR HSx-D2 (Dual Product, Dual Hose) | | 21" x 17.75" | 53 x 45 | --- | DSW-1922 | --- | --- | --- | SBK-1900 |
| RDR HSx-SAT (Master Unit and Satellites) | | 21" x 17.75" | 53 x 45 | --- | DSW-1922 | --- | --- | --- | SBK-1900 |
| RDR HSx-X2 (Single Product, Dual Hose, One at a Time) | | 21" x 17.75" | 53 x 45 | --- | DSW-1922 | --- | --- | --- | SBK-1900 |



* For FDS-4021 Models, use Stabilizer Bar SBK-1800.

Ordering Specifications - FlexWorks Dispenser Sump Selection Chart

| Dispenser Manufacturer & Model | Dispenser Footprint Dimensions | | FlexWorks One-Piece Polyethylene Sump | FlexWorks Wide-Access Polyethylene Sump | FlexWorks One-Piece Polyethylene Pan | FlexWorks One-Piece Fiberglass Sump | FlexWorks Wide-Access Fiberglass Sump | Stabilizer Bar Kit |
|--|---|-----------|---------------------------------------|---|--------------------------------------|-------------------------------------|---------------------------------------|--------------------|
| | in. | cm | | | | | | |
| GASBOY | | | | | | | | |
| 0215A, 216A (19 ⁷ / ₈ " Frame / 50.5 mm) | 17 ¹ / ₄ " x 19 ⁷ / ₈ " | 49 x 50.5 | DS-1117F | --- | DP-1117F | ---- | --- | SBK-1100J |
| 52 and 53 Series | 17" x 19 ⁷ / ₈ " | 44 x 50.5 | DS-1117F | --- | DP-1117F | ---- | --- | SBK-1100J |
| 8700, 8800, 9100, 9800 Series | 17 ¹ / ₄ " x 25" | 44 x 63.5 | DS-1120 | ---- | ---- | ---- | ---- | SBK-1100J |
| 25" Frame 63.5 mm | 17 ¹ / ₄ " x 25" | 44 x 63.5 | ---- | ---- | ---- | ---- | ---- | ---- |
| 8700, 8800, 9100, 9800 Series (28 ¹ / ₄ " Frame / 72 mm) | 17 ¹ / ₄ " x 28" | 44 x 71 | DS-1123 | DSW-1123 | DP-1123 | ---- | DSF-1123F | SBK-1100J |
| 9850A | 15 ¹ / ₁₆ " x 21" | 40 x 69 | DS-1120 | DSW-1120 | ---- | ---- | DSF-1120 | SBK-1100J |

* Stabilizer bar is installed widthwise in dispenser sump

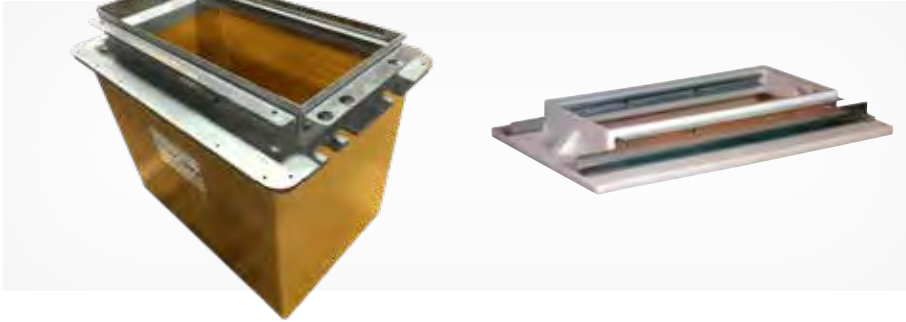
DRESSER / WAYNE

| | | | | | | | | |
|---|--|----------|----------|-----------------------|----------|-----------|-----------------------|-----------|
| 350, 357, 358, 360, 370 Series | 15" x 25 ⁷ / ₈ " | 30 x 66 | DS-1123F | DSW-1123F | DP-1123F | ---- | DSF-1123F | SBK-1100J |
| Vista 380 Series (387, 389) | 20" x 35" | 51 x 89 | DS-1229 | --- | ---- | ---- | --- | SBK-1200J |
| Vista 590 Series (590, 595) | 20" x 48" | 51 x 122 | DS-1242 | --- | ---- | ---- | --- | SBK-1200J |
| Vista 390 Series (395, 399) | 20" x 48" | 51 x 122 | DS-1242 | --- | ---- | ---- | --- | SBK-1200J |
| Vista 490 Series | 20" x 48" | 51 x 122 | DS-1242 | --- | ---- | ---- | --- | SBK-1200J |
| DL390, 395, 399 Series | 20" x 48" | 51 x 122 | DS-1242 | --- | ---- | ---- | --- | SBK-1200J |
| HS1 Satellite / 287 Series | 20" x 35" | 51 x 89 | DS-1229 | --- | ---- | ---- | --- | SBK-1200J |
| Ovation  | 19 ¹ / ₂ " x 43 ¹ / ₂ " | 50 x 110 | DS-1543A | DSW-1543 DSW-1543C | DP-1543 | FDS-4319* | DSF-1543 DSF-1543C | SBK-1500 |
| Select | 19 ³ / ₈ " x 32 ⁵ / ₁₆ " | 49 x 82 | DS-1928 | ---- | ---- | ---- | DSF-1630 | SBK-1500 |
| Global Century | 19 ³ / ₈ " x 32 ⁵ / ₁₆ " | 49 x 82 | DS-1928 | ---- | ---- | ---- | DSF-1630 | SBK-1500 |
| Reliance | 19 ³ / ₈ " x 32 ⁵ / ₁₆ " | 49 x 82 | DS-1928 | ---- | ---- | ---- | DSF-1630 | SBK-1500 |
| HS4 / HS3 / Vista | 19 ³ / ₈ " x 32 ⁵ / ₁₆ " | 49 x 82 | DS-1630 | DSW-1630 | DP-1630 | ---- | DSF-1630 | SBK-1600 |
| Narrow Frame Helix (2000, 4000) | 20" x 33" | 51 x 84 | DS-1630 | ---- | ---- | ---- | ---- | SBK-1600 |
| Wide Frame Helix (5000)  | 26" x 44" | 51 x 112 | DS-1741 | ---- | ---- | ---- | ---- | SBK-1700 |

TOKHEIM

| | | | | | | | | |
|-------------------------|--|----------|---------|----------|------|------|----------|-----------|
| 1200, 1248, 1250 Series | 17 ¹ / ₄ " x 25" | 44 x 64 | DS-1120 | DSW-1120 | ---- | ---- | DSF-1120 | SBK-1100J |
| 330B, 333B Series | 17 ¹ / ₄ " x 44" | 44 x 112 | DS-1642 | --- | ---- | ---- | --- | SBK-1600 |

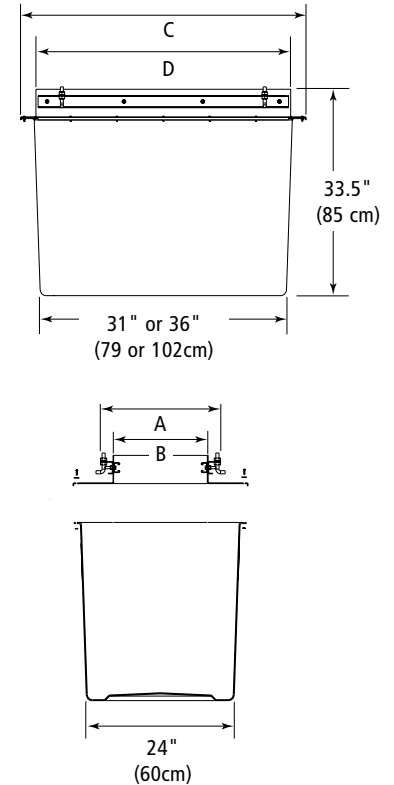
* For FDS-4319 Model use Stabilizer Bar SBO-0250



Features & Benefits:

- ◆ **Conduitless Design** – the fiberglass base and metal cap and frame are designed to direct conduit into the dispenser along the side of the sump to avoid requiring additional entry boot penetrations
- ◆ **Multi-Product Flexible** – the wide sump surface area is designed to accommodate up to 4 product lines into the sump
- ◆ **Structural Integrity** – engineered with thick side walls to withstand backfill and high water table forces. Precise glass and resin metering throughout the molding process ensures material consistency and maximizes the strength-to-weight ratio
- ◆ **Full-Perimeter Liquid Collection Channel** – facilitates quick leak detection and allows flexibility in locating leak sensors
- ◆ **Smooth Sealing Surfaces For Leak-Tight Sump Entry Fittings** – our fully enclosed molding manufacturing method produces a uniform wall thickness while eliminating air entrapment. The result is a flat, smooth finish, both inside and out, which provides leak-tight pipe entries
- ◆ **Convenient Shipping and Storage** – sump boxes are nestable. Two sizes accept multiple frames to accommodate all common dispensers
- ◆ **Full-Access Working Area** – frame is attached after plumbing is complete
- ◆ **Mounting Flange** – sump rests on island form crossbars for support during installation

Wide-Access Fiberglass Dispenser Sumps



Ordering Specifications - Wide Access Fiberglass Dispenser Sumps

| Sump Model # | Dimensions | | | | | | | | Weight with Top | | Box Part # | Top Assembly Part # |
|---------------|------------|------|--------|------|------|-----|------|-----|-----------------|----|------------|---------------------|
| | A | | B | | C | | D | | lbs. | kg | | |
| | in. | cm | in. | cm | in. | cm | in. | cm | | | | |
| DSF-1120 | 15 | 38 | 11 | 28 | 37 | 94 | 20 | 51 | 94 | 43 | D02198M | D02210 |
| DSF-1123 | 15 | 38 | 11 | 28 | 37 | 94 | 23 | 58 | 94 | 43 | D02198M | D02212 |
| DSF-1123F * | 15 | 38 | 11 | 28 | 37 | 94 | 23 | 58 | 94 | 43 | D02198M | D02213 |
| DSF-1543 ** | 18.5 | 47 | 14.375 | 37 | 46 | 117 | 42.5 | 108 | 95 | 43 | 210034 | 211351 |
| DSF-1543C** | 18.5 | 47 | 14.375 | 37 | 46 | 117 | 36.3 | 92 | 95 | 43 | 210034 | 211351 |
| DSF-1630 | 20 | 51 | 16 | 41 | 37 | 94 | 30 | 76 | 87 | 40 | D02198M | D02536 |
| DSF-1741C | 20.7 | 52.5 | 16.7 | 42.4 | 40.5 | 103 | 37 | 94 | 90 | 41 | 210051 | 212272 |
| DSF-1836 | 21 | 53 | 17 | 43 | 46 | 117 | 36 | 91 | 95 | 43 | E00591M | D02511 |
| DSF-1836C** | 21 | 53 | 17 | 43 | 46 | 117 | 36 | 91 | 95 | 43 | 210051 | 211350 |
| DSF-1836CL*** | 21.1 | 53.5 | 16.7 | 42.4 | 41 | 104 | 37 | 94 | 95 | 43 | 206725 | 206726 |

SL-1100 Urethane Sealant - One Tube required per Sump (Packaged 12 tubes/case)

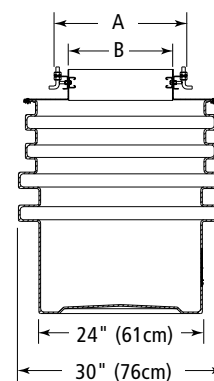
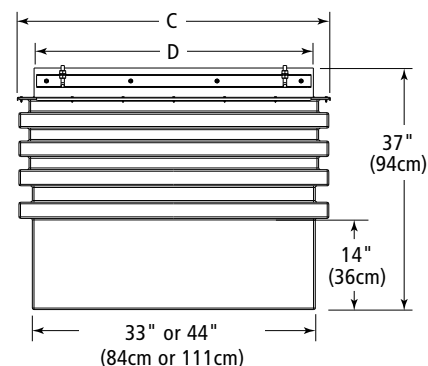
* Flush Mount model supplied without rain lip due to dispenser frame clearance limitations; Frame Gasket Included. Anchor bolts provided, Stabilizer Bar Kits ordered separately; One kit required for each emergency & vapor valve. Refer to FlexWorks Dispenser Sump Selection Chart (See Pages 35 - 36 of this catalog) to select sumps for particular dispensers. **Yellow indicates metal top model.**

** These sumps are designed for Conduitless applications.

*** C Conduitless



Wide Access Polyethylene Dispenser Sumps



Features & Benefits:

- ◆ **Contractor-Friendly Installation** – open top provides unrestricted access to the inside of the containment chamber to facilitate entry fitting and piping installation. Dispenser mounting frame is attached after plumbing is complete
- ◆ **Deeper Burial Capability** – 37" burial depth allows piping slope requirements to be met more easily in layouts with long piping runs
- ◆ **Simple Field Height Adjustment** – the top portion of the chamber can be quickly and easily trimmed along the ribs to ensure maximum installation flexibility
- ◆ **Full Perimeter Liquid Collection Channel** – facilitates quick leak detection and allows flexibility in locating leak sensors
- ◆ **Convenient Shipping and Storage** – sump boxes are partially nestable. Two chamber sizes accept multiple frames to accommodate all common dispensers
- ◆ **Polyethylene Top** – polyethylene top will not corrode

Ordering Specifications - Wide Access Polyethylene Dispenser Sumps

| Sump Model # | Dimensions | | | | | | | | Weight with Top | | Box Part # | Top Assembly Part # |
|----------------|------------|------|--------|------|-----|-----|------|-----|-----------------|----|------------|---------------------|
| | A | | B | | C | | D | | lbs. | kg | | |
| | in. | cm | in. | cm | in. | cm | in. | cm | | | | |
| DSW-1120 | 15 | 38 | 11 | 28 | 37 | 94 | 20 | 51 | 94 | 43 | E00590M | D02210 |
| DSW-1123 | 15 | 38 | 11 | 28 | 37 | 94 | 23 | 58 | 94 | 43 | E00590M | D02212 |
| DSW-1123F * | 15 | 38 | 11 | 28 | 37 | 94 | 23 | 58 | 94 | 43 | E00590M | D02213 |
| DSW-1543 ** | 18.5 | 47 | 14.375 | 37 | 46 | 117 | 42.5 | 108 | 95 | 43 | E00591M | D02550 |
| DSW-1543C | 18.5 | 47 | 14.375 | 37 | 46 | 117 | 36.3 | 92 | 95 | 43 | E00591M | 201491 |
| DSW-1630 | 20 | 51 | 16 | 41 | 37 | 94 | 30 | 76 | 87 | 40 | E00590M | D02536 |
| DSW-1836 | 21 | 53 | 17 | 43 | 46 | 117 | 36 | 91 | 95 | 43 | E00591M | D02511 |
| DSW-1836C ** | 21 | 53 | 17 | 43 | 46 | 117 | 36 | 91 | 95 | 43 | E00590M | 201339 |
| DSW-1836CL *** | 21.1 | 53.5 | 16.7 | 42.4 | 41 | 104 | 37 | 94 | 95 | 43 | 206725 | 206726 |

SL-1100 Urethane Sealant - One Tube required per Sump (Packaged 12 tubes/case)

* Flush Mount model supplied without rain lip due to dispenser frame clearance limitations; Frame Gasket Included. Anchor bolts provided, Stabilizer Bar Kits ordered separately; One kit required for each emergency & vapor valve. Refer to FlexWorks Dispenser Sump Selection Chart (See Pages 35 - 36 of this catalog) to select sumps for particular dispensers. **Yellow indicates metal top model.**

** Conduitless with Offset Top.

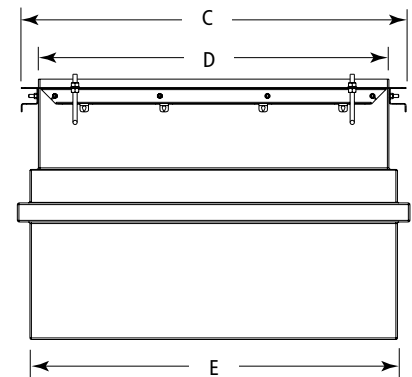
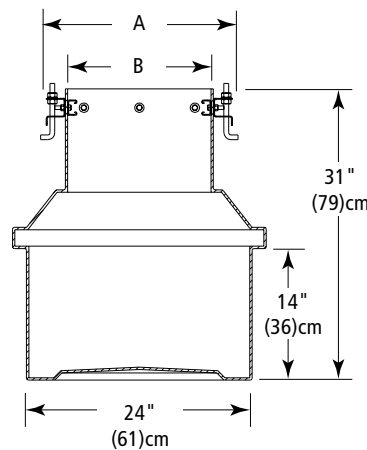
*** Conduitless Narrow Base.

One-Piece Polyethylene Dispenser Sumps

FlexWorks Dispenser Sumps are installed beneath fuel dispensers to provide access to and secondary containment of dispenser plumbing, emergency shear valves and underground piping connections. Stabilizer Bar Kits are installed in FlexWorks Dispenser Sumps to provide reliable support for boss-mounted emergency shear valves.

Features & Benefits:

- ◆ **Multiple Models** – ensure a custom fit.
- ◆ **Structural Reinforcing on Large MPD Models** – prevents sump deformation from backfill and high water table forces.
- ◆ **Light Color** – preserves rigidity in sunlight before backfill and provides maximum visibility after installation.
- ◆ **Full Perimeter Liquid Collection Channel** – facilitates quick leak detection and allows flexibility in locating leak sensors.
- ◆ **Integral Rain Lip** – protrudes into the dispenser frame to prevent surface water entry.
- ◆ **Easy Installation** – field height adjustment capability and large pipe entry area ensures installation flexibility.
- ◆ **Many Are Available in a Conduitless Model** – eliminates conduit entry fittings and prevents a notorious leak point inside dispenser sumps.



Ordering Specifications* - One-Piece Polyethylene Dispenser Sumps

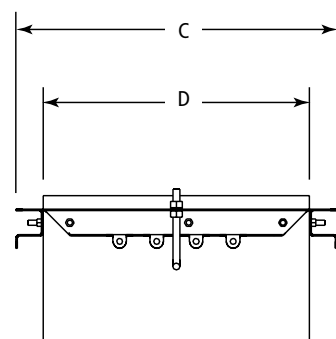
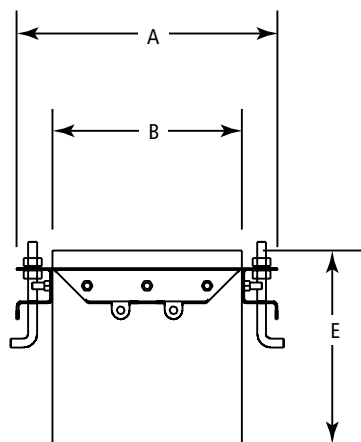
| Model # | A | | B | | C | | D | | E | | Weight | |
|-------------|------|----|------|----|------|-----|------|-----|------|-----|--------|-----|
| | in. | cm | in. | cm | in. | cm | in. | cm | in. | cm | lbs. | kg. |
| DS-1036 | 14 | 36 | 10 | 25 | 40 | 102 | 36 | 91 | 38 | 97 | 65 | 65 |
| DS-1117F** | 14.5 | 37 | 10.5 | 27 | 20.5 | 52 | 16.5 | 42 | 18.5 | 47 | 32 | 15 |
| DS-1120 | 15 | 38 | 11 | 28 | 24 | 61 | 20 | 51 | 25 | 64 | 33 | 15 |
| DS-1123 | 15 | 38 | 11 | 28 | 27 | 69 | 23 | 58 | 25 | 64 | 33 | 15 |
| DS-1123B | 18.5 | 47 | 11 | 28 | 27 | 69 | 23 | 58 | 25 | 64 | 33 | 15 |
| DS-1123F ** | 15 | 38 | 11 | 28 | 27 | 69 | 23 | 58 | 25 | 64 | 33 | 15 |
| DS-1229 | 15.5 | 39 | 11.5 | 29 | 33 | 84 | 29 | 74 | 31 | 79 | 49 | 22 |
| DS-1242 | 15.5 | 38 | 11.5 | 29 | 46 | 117 | 42 | 107 | 44 | 112 | 84 | 38 |
| DS-1543A | 19 | 48 | 15 | 38 | 43 | 109 | 39 | 99 | 41 | 104 | 84 | 38 |
| DS-1630 | 20 | 51 | 16 | 41 | 34 | 86 | 30 | 76 | 32 | 81 | 52 | 23 |
| DS-1630B | 20 | 51 | 16 | 41 | 34 | 86 | 30 | 76 | 32 | 81 | 52 | 23 |
| DS-1642 | 20 | 51 | 16 | 41 | 46 | 117 | 42 | 107 | 44 | 112 | 84 | 38 |
| DS-1836 | 21.5 | 55 | 17.5 | 44 | 40.5 | 103 | 36.5 | 93 | 39 | 99 | 70 | 32 |
| DS-1928 | 18 | 46 | 14.8 | 38 | 30 | 76 | 26 | 66 | 28.5 | 72 | 50 | 23 |
| DS-1741 | 21 | 53 | 17 | 43 | 44.7 | 114 | 40.6 | 103 | 42.6 | 108 | 80 | 36 |

* Refer to FlexWorks Dispenser Sump Selection Chart to select sumps for particular dispensers (See pages 35 - 36 of this catalog)

** Flush mount model supplied without rain lip due to dispenser frame clearance limitations; Frame gasket included. Anchor bolts provided, Stabilizer Bar Kits ordered separately; One kit required for each emergency and vapor shear valve.

FlexWorks Polyethylene Dispenser Pans

FlexWorks Dispenser Pans are installed beneath fuel dispensers to provide secondary containment of dispenser plumbing and emergency shear valves. Dispenser pans are commonly used with rigid fuel pipe and to retrofit existing dispensers.



Ordering Specifications FlexWorks Polyethylene Dispenser Pan

| Model * | Dimensions | | | | | | | | | | Weight | |
|----------|------------|----|--------|----|--------|-----|--------|----|-----|----|--------|----|
| | A | | B | | C | | D | | E | | lbs. | kg |
| | in. | cm | in. | cm | in. | cm | in. | cm | in. | cm | | |
| DP-1117F | 14 1/2 | 37 | 10 1/2 | 27 | 20 1/2 | 52 | 16 1/2 | 42 | 11 | 28 | 20 | 9 |
| DP-1123 | 15 | 38 | 11 | 28 | 27 | 69 | 23 | 58 | 11 | 28 | 23 | 10 |
| DP-1123F | 15 | 38 | 11 | 28 | 27 | 69 | 23 | 58 | 11 | 28 | 23 | 10 |
| DP-1543 | 19 | 48 | 15 | 38 | 43 | 109 | 38.8 | 99 | 11 | 28 | 44 | 20 |
| DP-1630 | 20 | 51 | 16 | 41 | 34 | 86 | 30 | 76 | 11 | 28 | 38 | 17 |
| DP-1836 | 21 1/2 | 55 | 17 1/2 | 44 | 40 | 102 | 36 | 91 | 11 | 28 | 50 | 23 |

*Flush Mount Model (F) Supplied without Rain Lip Due to Dispenser Frame Clearance Limitations; Supplied with Frame Gasket. Anchor Bolts Provided, Stabilizer Bar Kits Ordered Separately; One Kit Required for each Emergency Shut-Off Valve.



DSK-DEF-1836

DEF Skirt

OPW Retail Fueling is proud to announce our new DEF Skirt for our 1836 Series of Dispenser Sumps for the Gilbarco Encore High Speed Diesel with a DEF cabinet.

NOTE: This skirt is not made for the DSW-1836 or DSW-1836CL Sump.

Features & Benefits:

- ◆ Provides a below-grade mounting point for our DEF Shear Valve, part number 60V-DEF
- ◆ Fits Dispenser Sumps DS-1836, DSF-1836, DSF-1836C and FDS-4021

Ordering Specifications

| Model # | Description |
|--------------|---|
| DSK-DEF-1836 | DEF Skirt for Gilbarco Encore |
| DSK-DEF-1630 | DEF Skirt for Wayne Ovation |
| DSK-DEF-1836 | DEF Pan for Gilbarco Encore with Solid Base |
| DSK-DEF-1630 | DEF Pan for Wayne Ovation with Solid Base |



Dispenser Pan Fittings and Accessories

FlexWorks Dispenser Pan fittings are installed in the bottom of FlexWorks Dispenser Pans to accommodate Pipe and Flex Connector Entries. "The FIT-3530 is used to isolate and contain Flex Connectors".

Ordering Specifications - Dispenser Pan Fittings & Accessories

| Model | Application | Nominal Boot I.D. | | Hole Saw Required | Weight | |
|-----------|--|-------------------------------|----|-------------------|--------|----|
| | | in. | cm | | lbs. | kg |
| PEF-3520R | Pan Entry Fitting, 2" (5 cm) FRP Pipe Entry | 2 ³ / ₈ | 6 | 3" (8 cm) | 2.5 | 1 |
| PEF-3515R | Pan Entry Fitting, 1.5" (4 cm) Pipe Entry | 2 | 5 | 3" (8 cm) | 2.5 | 1 |
| PEF-3515X | Pan Entry Fitting, 1.5" (4 cm) Flex Connector (Hex Seal) | 2 (Hex) | 5 | 3" (8 cm) | 2.5 | 1 |
| FIT-3530 | Flexible Isolation Jacket, 30" (76 cm) Long x 3.5" (9 cm) I.D. | | | | 2 | 1 |
| ITR-3015 | Isolation Tube Reducer, 3" x 1.5" | | | | 1 | .5 |
| ITR-3020 | Isolation Tube Reducer, 3" x 2" | | | | 1 | .5 |

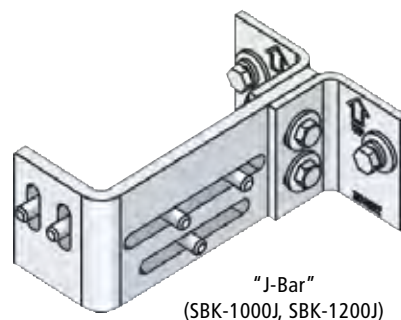
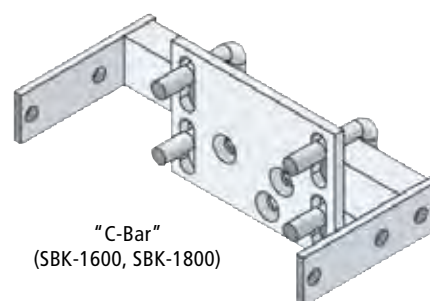
Dispenser Sump Accessories

FlexWorks pipe Stabilizer Bar Kits provide reliable support inside dispenser sumps/pans for boss-mounted emergency shear valves. One kit is required for each emergency valve and vapor shear valve.

Ordering Specifications - Stabilizer Bar Kit

| Model # | 0 (for Sump/Pan) DS-, DSW, DSF, FDS | Weight | |
|-----------|---|--------|-----|
| | | lbs. | kg |
| SBK-1000J | 1036 | 5 | 2.3 |
| SBK-1100J | 1117F, 1123, 1123F, 1120 | 5 | 2.3 |
| SBK-1200J | 1229, 1242 | 6 | 2.8 |
| SBK-1500 | Ovation Product Line (DS-1543A, DSW-1543, DSF-1543, 1543C, DS-1928) | 7 | 3 |
| SBK-1500V | Ovation Vapor Line (DSW-1543, DS1543A, DSF-1543, 1543C) | 7 | 3 |
| SBK-1600 | 1630, 1642 | 7 | 3 |
| SBK-1700 | DSF-1741C | 7 | 3 |
| SBK-1800 | DS-1836, FDS-4021 | 7 | 3 |
| SBO-0250 | Ovation FDS-4319 | 6 | 2.8 |
| SBO-0300 | FDS-4319-DW | 6 | 2.8 |
| SBO-0700 | FDS-4021-DW | 6 | 2.8 |
| MPK-10* | Extra Mounting Plate Kit | 2 | 1 |
| C04400M | Stabilizer Bar Mounting Plate Only under the MPK-10* | | |

* Stabilizer bar is installed widthwise in dispenser sump. One valve mounting plate is included. Additional MPK-10 mounting plate kit is required for additional valves.



Automatic Fire Extinguisher System

The FlexWorks Automatic Fire Extinguisher System is a small, non-rechargeable fire extinguisher designed specifically to be installed in a containment sump underneath an above-ground fuel dispenser, and to automatically extinguish a fuel fire in the event of a dispenser knock-over. The FlexWorks Fire Extinguisher System will automatically activate and discharge its extinguishing agent when the surrounding temperature reaches 175°F (79°C). The fire extinguisher comes with its own mounting bracket and can be mounted to a variety of surfaces. The fire extinguisher contains enough extinguishing agent to protect dispenser containment sumps up to a maximum capacity of 50 cubic feet.

Features

- ◆ Charged with a clean agent – HFC-227ea
- ◆ Operating temperatures of 0°F to 130°F
- ◆ One-year replacement warranty
- ◆ Low-cost solution to a potentially expensive problem

Benefits

- ◆ Extinguishes fuel fires quickly
- ◆ Provides year-round fire protection
- ◆ No certified annual testing required
- ◆ May reduce fire insurance premiums



Fire Prevention

Dispenser and UST containment sumps offer significant environmental protection by providing secondary containment and corrosion protection of valves and pipe fittings. Under certain conditions, a potential fire hazard could develop. Should a fire occur inside the containment chamber, the FlexWorks Automatic Fire Extinguisher System automatically extinguishes the fire in a matter of seconds, protecting patrons, underground piping, shear valves and sump.

| Application | Dispenser Containment Sump |
|-----------------------|---|
| Agent | HFC-227 |
| Coverage Area: | 50 ft. ³ (1.42m ³) |
| Atmospheric Life | Less than one day |
| Activation Temp: | 175°F (79°C) |
| Operating Temp Range: | 0°F to 130°F (-17.7°C to 54.4°C) |

Ordering Specifications - FlexWorks Automatic Fire Extinguisher System

| Model | Description |
|--------|--|
| FSS-50 | FlexWorks Automatic Fire Extinguisher System |



The "REF" Rigid Entry Fitting

As a result of OPW's all inclusive development program to bring Next Generation Solutions to the market, OPW is proud to announce the release of our new state-of-the-art Rigid Entry Fitting.

How is this fitting different than other fittings in the industry? Our new Rigid Entry Fitting has minimal exposed rubber, yet still accommodates ground movement. The sealing redundancy throughout the fitting provides maximum containment and unmatched protection from water intrusion.

Features & Benefits:

- ◆ Sealing redundancy throughout – Maximum containment and unmatched protection from water intrusion
- ◆ Preserves total accessibility – For monitoring, maintenance, testing and repair
- ◆ Maintains flexibility to accommodate pipe and ground movement
- ◆ Hard shell exterior – to weather the elements and abuse of the underground environment

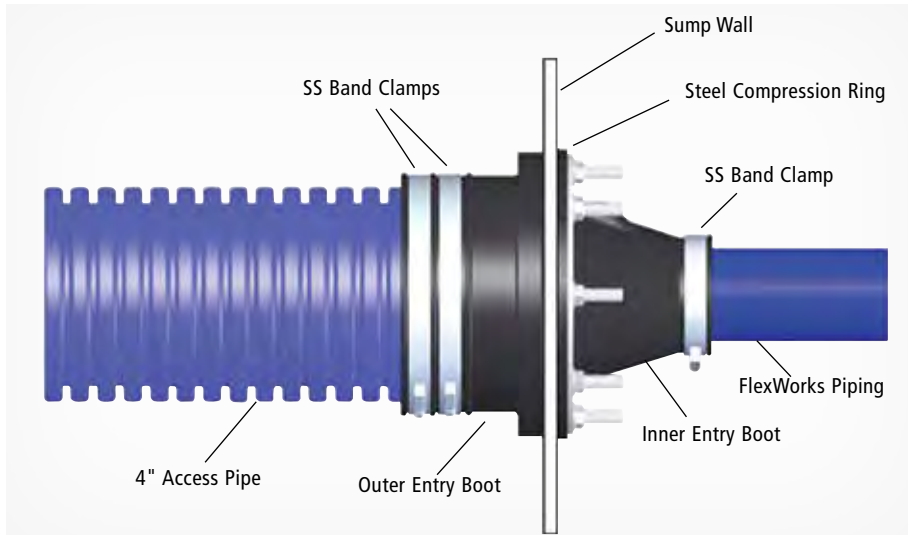
Ordering Specifications - REF Rigid Entry Fitting

| Model # | Description | Weight | |
|------------------------|---|--------|------|
| | | lbs. | kg |
| REF-0075C | Rigid Entry Fitting, ¾" Rigid Conduit, Nylon | .90 | 0.40 |
| REF-0100C | Rigid Entry Fitting, 1.0" Rigid Conduit, Nylon | .95 | 0.43 |
| REF-0150 | Rigid Direct Bury Entry Fitting for 1.5" Flexworks | 2.35 | 1.06 |
| REF-0200 | Rigid Direct Bury Entry Fitting for 2" Flexworks | 2.45 | 1.11 |
| REF-0200F | Rigid Direct Bury Entry Fitting for 2.0" Smith SW FRP | 2.45 | 1.11 |
| REF-0200X | Rigid Direct Bury Entry Fitting for 2" LCX DW FRP | 2.45 | 1.11 |
| REF-0300F | Rigid Direct Bury Entry Fitting for 3" Smith SW FRP | 2.85 | 1.30 |
| REF-0300F | Rigid Direct Bury Entry Fitting for 3" Smith SW FRP | 2.85 | 1.30 |
| REF-4015 | FlexWorks Rigid Entry Fitting 4" x 1.5" | 2.75 | 1.25 |
| NEW REF-4015DC* | Double-wall Compatible (DC) FlexWorks Rigid Entry Fitting 4" x 1.5" | 2.75 | 1.25 |
| REF-4020 | FlexWorks Rigid Entry Fitting 4" x 2.0" | 2.85 | 1.30 |
| NEW REF-4020DC* | Double-wall Compatible (DC) FlexWorks Rigid Entry Fitting 4" x 2.0" | 2.85 | 1.30 |
| NEW HEF-6030 | FlexWorks Rigid Entry Fitting 6" x 3.0" | 2.95 | 1.34 |

*Compatible with any double-wall sump up to 0.52 inches thick.
Ships with customer "acorn nuts" and o-rings to ensure interstice integrity.

Hole Saw Size Table

| Entry Fitting Model # | Hole Saw Dimension |
|--|--------------------|
| REF-0075C, REF-0100C | 2.5" |
| REF-0150, REF-0200, REF-0200F, REF-0200X, REF-4015, REF-4020 | 4" |
| REF-0300F | 5" |
| HEF-6030 | 5.75" |



Ordering Specifications - Double Flexible Entry Boot & Fitting

| Model # | Application | Hole Saw | | Weight | |
|-------------|---|----------|-------|--------|------|
| | | in. | cm | lbs. | kg |
| DEB-0751 | 1/2", 3/4" and 1" Conduit Double Entry Boot Fitting | 2 3/8" | 6.03 | 1.45 | 0.66 |
| DEB-0150 | 1.5" Double Entry Boot Fitting for 1.5" DW FlexWorks Pipe | 4 1/4" | 10.79 | 2.50 | 1.13 |
| DEB-0200 | 2" Double Entry Boot Fitting for 2" DW FlexWorks Pipe or 2" Rigid Pipe | 4 1/4" | 10.79 | 2.50 | 1.13 |
| DEB-0200X | 2" LCX Double Entry Boot Fitting for 2" Ameron LCX / MCX Pipe | 5 1/2" | 13.97 | 3.90 | 1.77 |
| DEB-0300 | 3" Double Entry Boot Fitting for 3" DW FlexWorks or 3" Rigid Pipe | 5 1/2" | 13.97 | 3.05 | 1.38 |
| DEB-0300X | 3" LCX Double Entry Boot Fitting for 3" Ameron LCX / MCX Pipe | 5 1/2" | 13.97 | 3.50 | 1.59 |
| DEB-0400 | 4" Double Entry Boot Fitting for 4" Rigid Pipe/AXP LCX Pipe | 5 1/2" | 13.97 | 3.20 | 1.45 |
| DEB-4015(A) | 4" to 1.5" Double Entry Boot Fitting for 4" FlexWorks Access Pipe to 1.5" DW FlexWorks Pipe - (A) with Air Stem | 4" | 10.79 | 3.15 | 1.43 |
| DEB-4020(A) | 4" to 2" Double Entry Boot Fitting for 4" FlexWorks Access Pipe to 2" DW FlexWorks Pipe - (A) with Air Stem | 4" | 10.79 | 3.20 | 1.45 |

Double Flexible Entry Boots

FlexWorks Double Flexible Entry Boots are designed to seal the sump penetration. These entry boots incorporate both internal and external band clamps to provide additional sealing in harsh environments. Boots firmly fasten and seal to the sump wall using steel studs, fasteners and a galvanized compression ring. These entry boots are available in a variety of sizes and designs to accommodate rigid and flexible piping, ducting and conduit.

Features & Benefits:

- ◆ Watertight pipe and conduit entries
- ◆ Installation on flat or round surface
- ◆ Added flexibility permitting angled
- ◆ Provides clean dry environment
- ◆ Accommodates various site installations
- ◆ Allows for easy field adjustments
- ◆ Can be repaired if damaged
- ◆ Third-party tested and approved
- ◆ Internal and external clamps for positive seal off

Flexible Entry Boots

FlexWorks Flexible Entry Boots are reliable, safe seals for pipe and conduit entries into underground containment sumps. These entry boots allow for angled pipe entries and have no exposed metal parts to the underground environment. These entry boots are available in a variety of sizes and designs to accommodate rigid and flexible piping, ducting and access pipe.

Features & Benefits:

- ◆ Watertight pipe and conduit entries
- ◆ Installation on flat or round surface
- ◆ Added flexibility permitting angled entries up to 15 degrees
- ◆ Third-Party testing approved

Sump Entry

Flexible entry boots have been tested to withstand a minimum of 6' of liquid head pressure. These seals provide a studded flange connection to create a positive and secure seal where the rubber contacts the sump wall and also around the pipe or conduit. Tightening down on a series of stud fasteners with a compression ring provides a high compression mechanical seal compared to screw on type bulkhead seals.



Angled Entries

Primary pipe and access pipe entering the containment sumps may not be perpendicular with the sump wall. Angled entries are generally a result of directional plumbing restrictions on the inside of the containment chamber due to space limitations. Flexible entry boots are flexible enough to permit angled pipe or conduit entries (on two axes) into the sidewall of a containment chamber. All flexible entry boots permit angled entries up to a 15-degree angle off the perpendicular center line in any direction without leaking or putting undue stress on the pipe or conduit seal.

Ordering Specifications - Single Flexible Entry Boot & Fitting

| Model # | Application | Weight | | Hole Saw | |
|-----------|--|--------|-----|----------|-------|
| | | lbs. | kg | in. | cm |
| EBF-0751 | 1/2", 3/4" and 1" Conduit Entry Boot Fitting | 1.2 | 0.5 | 2 3/8" | 6.03 |
| EBF-0150 | 1.5" Entry Boot Fitting for 1.5" DW FlexWorks Pipe | 1.5 | 0.7 | 3 3/4" | 9.52 |
| EBF-0200 | 2" Entry Boot Fitting for 2" DW FlexWorks Pipe or 2" LCX | 1.8 | 0.8 | 3 3/4" | 9.52 |
| EBF-0200F | 2" Entry Boot Fitting for 2" Rigid Pipe | 1.3 | 0.6 | 3 3/4" | 9.52 |
| EBF-0300 | 3" Entry Boot Fitting for 3" DW FlexWorks Pipe or 3" Rigid Pipe/LCX | 1.8 | 0.8 | 5" | 12.7 |
| EBF-0400 | 4" Entry Boot Fitting for 4" Rigid Pipe/AXP Pipe | 2.0 | 0.9 | 5 1/2" | 13.97 |
| EBF-0600 | 6" Entry Boot Fitting for 6" Rigid Pipe Saber Saw | 3.0 | 1.3 | 7 1/4" | 18.47 |
| SAB-7400 | 4" Sump Access Boot – Can be used as a repair boot plug for EBF fittings | 2.0 | 0.9 | 5" | 12.7 |

Flexible Entry Boot Manual Order Number: EBM-0001

Test Boots

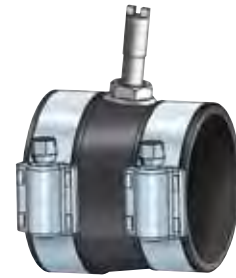
FlexWorks Test Boots are used to isolate and air-test the interstitial space between the primary and secondary pipe. One test boot is required for each pipe end.

The QCJ-2512 and our QCT-2512 allows users to quickly close the interstitial space of the pipe for testing. New EPA regulations maintain that secondarily contained areas must be tested for tightness after repairs and this new hardware saves time and money on labor when tests are necessary.

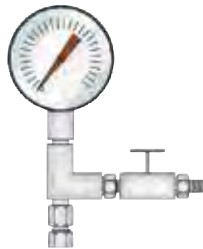
- QCJ-2512 (Junction) is used for pass through UDC's, and the QCT-2512 (Termination) is used to terminate the run.
- Quick close system allows for open systems to be closed and tested in minutes.



Models TBA-3015,
TBA-3020, TBA-4015 and TBA-4020



Models TBA-0075,
TBA-0100, TBA-0150, TBA-0200 and TBA-0300



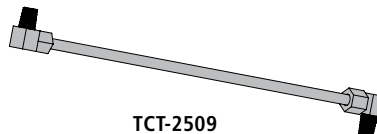
Test Gauge Assembly (TGA-15)



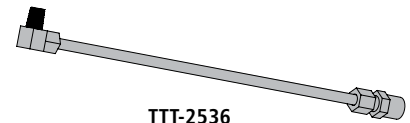
Test Jumper for Air Stems
(TJ-200A)



Test Line Termination Kit for Air Stems
(TLT-36A)



TCT-2509



TTT-2536

Ordering Specifications - Test Boot & Testing Equipment

| Model # | Application | Weight | |
|----------|---|--------|------|
| | | lbs. | kg |
| QCJ-2512 | Junction | | |
| QCT-2512 | Termination | | |
| TBA-0075 | 3/4" Test Boot with Air Stem | 0.20 | 0.09 |
| TBA-0100 | 1" Test Boot with Air Stem | 0.20 | 0.09 |
| TBA-0150 | 1.5" Test Boot with Air Stem | 0.35 | 0.16 |
| TBA-0200 | 2" Test Boot with Air Stem | 0.40 | 0.18 |
| TBA-0300 | 3" Test Boot with Air Stem | 0.70 | 0.32 |
| TBA-3015 | 3" to 1.5" Test Boot with Air Stem | 0.35 | 0.16 |
| TBA-3020 | 3" to 2" FRP Test Boot with Air Stem | 0.40 | 1.18 |
| TBA-4015 | 4" to 1.5" Test Boot with Air Stem | 0.75 | 0.34 |
| TBA-4020 | 4" to 2" Test Boot with Air Stem | 0.75 | 0.34 |
| TBA-4030 | 4" to 3" FRP Test Boot with Air Stem | 0.70 | 0.32 |
| TJ-200A | Test Jumper for Air Stems | | |
| TLT-36A | Test Line Termination Kit for Air Stems | | |
| TGA-15 | Test Gauge Assembly | | |
| TCT-2509 | Test Jumper for Double-Wall Coupling (DPC and SBC Series) | | |
| TTE-5 | Replacement Brass Elbows for Test Tubes (5 per bag) | | |
| TTT-2536 | Test Tube Termination Kit for Double-Wall Coupling (DPC and SBC Series) | | |



QCJ-2512



QCT-2512

Flexible Piping Systems for Fuel Oil & Generator Applications

The FlexWorks Fuel Oil Piping System is designed to provide a reliable fuel supply system to generators and boilers from remote fuel tanks. Typical applications include both a 3/4" supply and a 1" overflow return line running from a remote AST or UST to a generator engine or boiler day tank. Both lines are typically inserted into a common FlexWorks Access Pipe to provide retractable access to the fuel lines. See page 10 for fuel oil pipe. OPW will cut fuel oil pipe to length at no charge.

Ordering Specifications Specialty Fittings

| Model # | Application | Weight | |
|-----------|--|--------|-----|
| | | lbs. | kg |
| PDT-411 | 4" x 1" x 1" Double Tap Bushing | 12 | 5 |
| PJK-4175 | 4" x 1" x 3/4" Pipe Joining Kit | 10 | 4.5 |
| PTA-4175 | Transition Assembly | 8 | 3.5 |
| TBA-4175 | 4" Fuel Oil Boot Transition Assembly | 1 | 0.5 |
| TBA-4175A | 4" Fuel Oil Boot Transition Assembly with Air Stem | 1 | 0.5 |



DEB-4175 Double Entry Boot Fitting



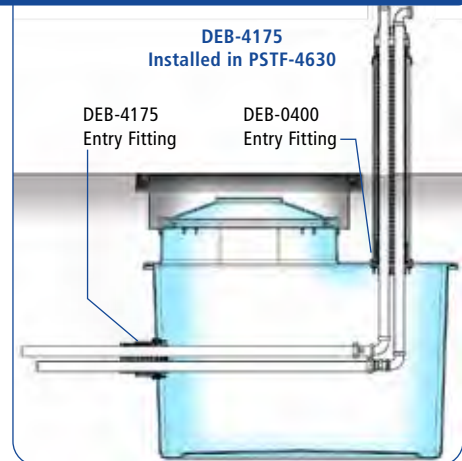
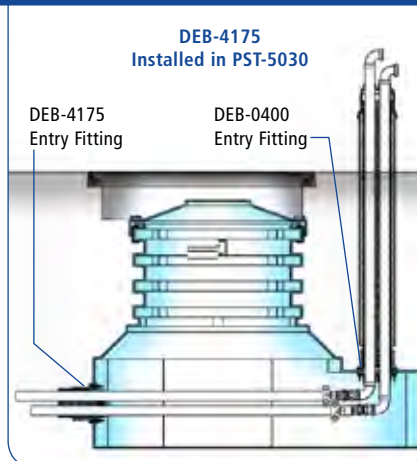
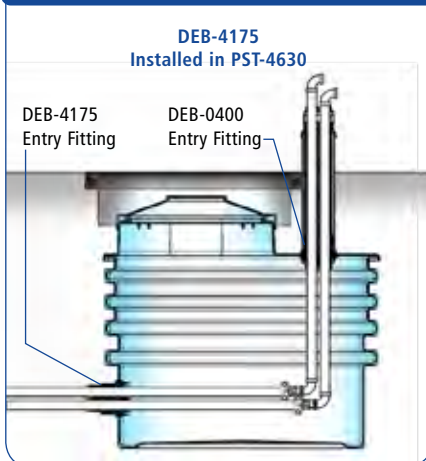
3/4" Primary Pipe with SBC Fitting



1" Primary Pipe with SBC Fitting

| Model # | Application | Weight | |
|----------|--|--------|------|
| | | lbs. | kg |
| SBC-2075 | Swivel Bolt-On Coupling 3/4" NPT | | |
| SBC-2100 | Swivel Bolt-On Coupling 1" NPT | | |
| DEB-4175 | 4" to 3/4" or 1" Double Entry Boot Fitting | 3.25 | 1.47 |

AST APPLICATIONS



Transition Assembly Specialty Fittings - 3/4" and 1"



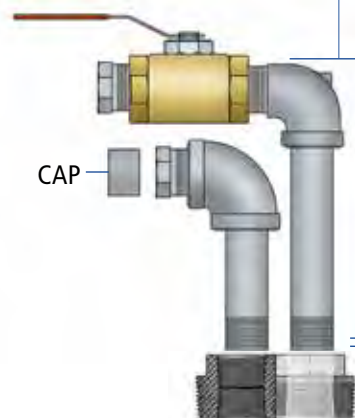
TBP-100

Plug for the Port on TBA-4175 Series Test Boots: For use when running only one fuel line inside AXP Pipes.



PTA-4175

FlexWorks Fuel Oil Piping Pipe Above/Below Ground Transition Assembly –
For slab penetration of 4" (10 cm) access pipe with 3/4" (2 cm) or 1" (3 cm) Fuel Oil Pipes



PDT-411 FlexWorks Double-Tapped Tank Bung Fitting, 4" (10 cm) MNPT w/Dual 1" (3 cm) FNPT Taps - Used in 4" (10 cm) Tank Bung to accommodate FOP Supply and Return Lines

PJK-4175 FlexWorks Fuel Oil Piping Pipe Joint Kit – includes nipples, ball valve and fittings used to connect 3/4" (2 cm) or 1" (3 cm) FOPs to PDT-411 Tank Bung Fitting

Transition Sumps

FlexWorks Above-Grade / Below-Grade Transition Sumps

Model PSTF-4630 Transition Sump (Fiberglass Sump/Fiberglass Top)

- ◆ Large, injection-molded FRP containment chambers are stackable for convenient shipping and storage
- ◆ Removable FRP top allows maximum access during installation of fittings and equipment, and provides a rigid entry fitting area adjacent to the cover for vertical entry of above-grade piping
- ◆ The PSTF-4630 is not adjustable, but FRP Sump Height Extenders (DSFE-4612) are available for the PSTF-4630 to accommodate deeper bury applications

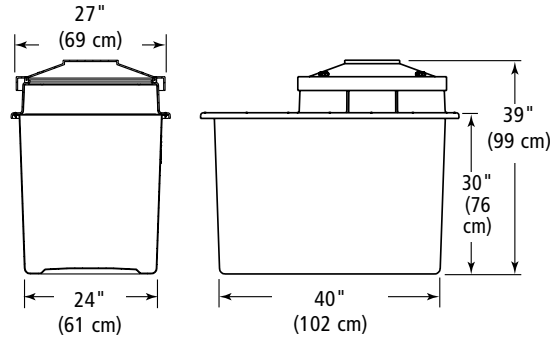
Model PST-4630 Transition Sump (Polyethylene Sump/Fiberglass Top)

- ◆ Large, heavily ribbed polyethylene containment chamber provides structural rigidity
- ◆ Adjustable to a minimum of 26"

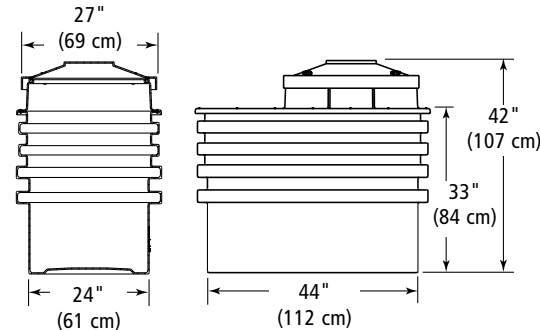
Model PST-5030 One-Piece Polyethylene Transition Sump

- ◆ Flat entry fitting area extending from the sump base accommodates vertical pipe entries
- ◆ Heavily ribbed riser provides strength and rigidity
- ◆ Adjustable to a minimum of 29"

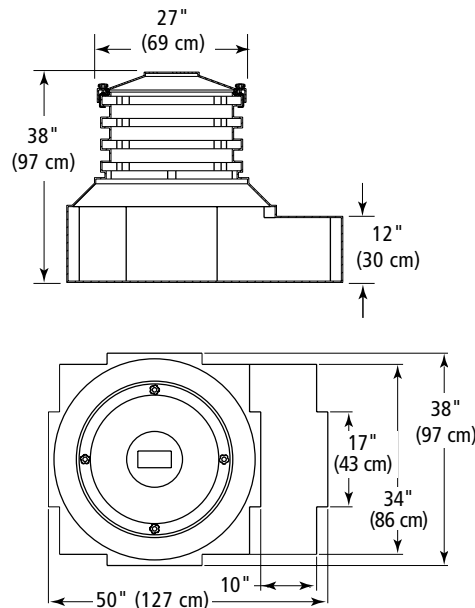
Model PSTF-4630 Transition Sump (Fiberglass Sump/Fiberglass Top)



Model PST-4630 Transition Sump (Polyethylene Sump/Fiberglass Top)



Model PST-5030 One-Piece Polyethylene Transition Sump

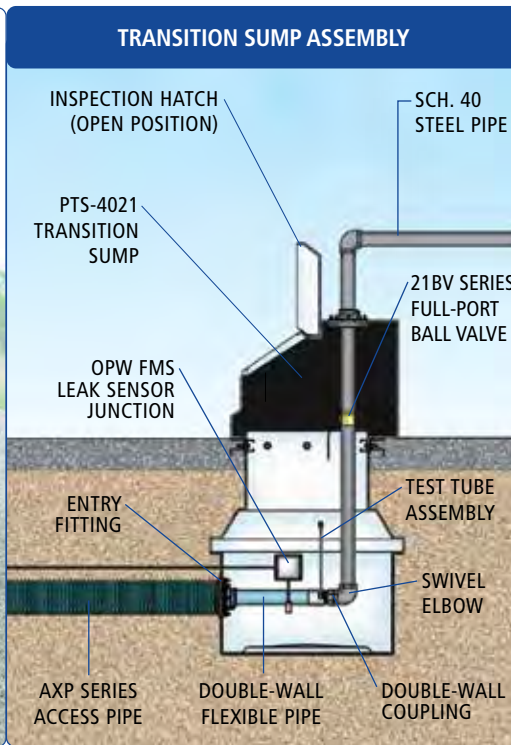


Ordering Specifications - Specialty Fitting

| Model # | Application | Height | | Weight | |
|-----------|---|--------|-----|--------|----|
| | | in | cm | lbs | kg |
| PSTF-4630 | Fiberglass Transition Sump with Fiberglass Top | 39 | 99 | 90 | 41 |
| PST-4630 | Poly Transition Sump with Fiberglass Top | 42 | 107 | 100 | 45 |
| PST-5030 | One-Piece Poly Transition Sump with Poly Top, 38" x 50" | 38 | 97 | 100 | 45 |
| PTS-4021 | Two-Piece Poly Transition Sump with Poly Top | 46.5 | 118 | 110 | 49 |

Replacement Parts

| Part # | Description |
|-----------|---------------------------|
| H13257M | Knob (each) |
| H13971M | Knob Kit (6 Pack) |
| H13214M | 33" Seal |
| D02025M | 33" Poly Cover |
| DSC-4021B | Top Assembly for PTS-4021 |



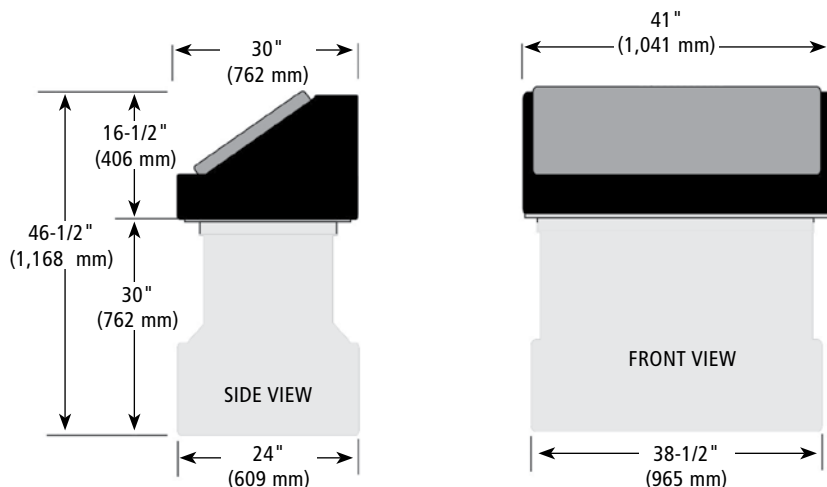
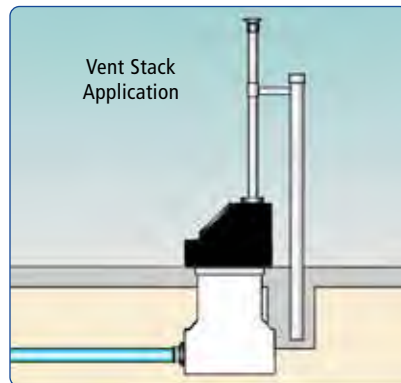
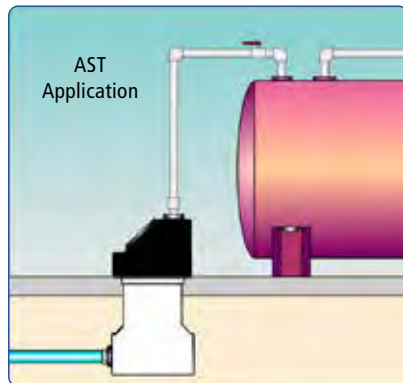
Transition Sumps

Model PTS-4021 Transition Sump (2 Piece - Polyethylene Sump/ Polyethylene Top)

- ◆ Non-corroding, polyethylene sump container
- ◆ Weatherproof lockable cover
- ◆ Exterior anchoring system

AST Application: Provides secondary containment and accessibility to the fittings that connect the underground supply piping to the rigid supply piping that leads from an above ground storage tank.

Vent Stack Application: Transition sump is used for containment and accessibility to the fittings. At the vent stack, where the underground vent piping connects to the rigid vent stack piping.



FlexWORKS

The complete Environmental System for underground fuel transfer and containment for the 21st century.

Emergency Shut-Off & Vapor-Line Shear Valves



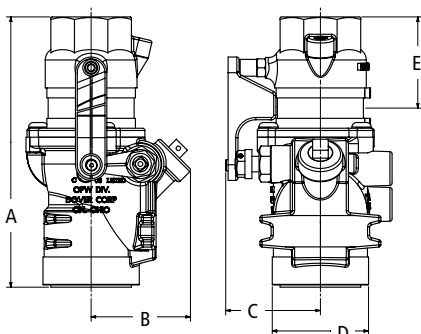
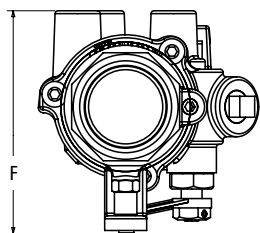
| | |
|--|---------|
| Emergency Shut-off Valves | 51 - 55 |
| Vapor Line Shear Valves | 56 - 57 |
| DEF Shear Valve | 58 |
| Island Forms and Protective Curbing | 59 - 62 |
| Pipe Guards | 63 |
| Flex Connectors | 64 - 65 |
| Suction System Accessories | 66 - 67 |
| Fuel Oil & Generator Piping Systems | 48 |
| Transition & Special Application Sumps | 49 - 68 |

10 Plus Series Emergency Shut-Off Valves

OPW raised the protection standard in emergency valves when it introduced the first double-poppet valve back in 1989. This industry-changing OPW innovation helped to significantly reduce the risk of fire, explosion, personal injury, property damage and environmental contamination at sites around the world. Major oil companies and jobbers agreed that providing added protection for their customers, investments and the environment were the three most convincing reasons for switching to the innovative new valves.

Dimensions

| | 1.5 in. | 2.0 in. |
|---|---------------------------------|---------------------------------|
| A | 7 ⁹ / ₁₆ | 8 ⁷ / ₈ |
| B | 2 ²⁵ / ₃₂ | 3 ¹ / ₂ |
| C | 2 ²¹ / ₃₂ | |
| D | 2 ¹¹ / ₁₆ | 3 ¹ / ₂ |
| E | 2 ⁹ / ₁₆ | 3 ³ / ₁₆ |
| F | 4 ²¹ / ₃₂ | 5 ³¹ / ₃₂ |



Listings and Certifications



10 Plus Series Instruction Sheet Order Number: **201614**

Materials

Top: Cast iron
Body: Cast iron



1.5"
10 Plus

2"
10 Plus (B100)

1.5"
10 Plus (E85)

2"
10 Plus

Features

- ◆ The **ONLY** emergency shut-off valve in the world designed to protect your customers, investments, and the environment against the potential hazards of undetected shear groove leaks caused by low-impact incidents
- ◆ The patented SmartGuard™ design contains shear groove leaks, preventing fuel from leaking into sumps to help reduce the risk of fire, explosion, personal injury, property damage, environmental contamination, product loss and costly clean-up
- ◆ Superior shear groove design and engineering results in reliable valve shut-off in the event of a pull-over or dislodged dispenser. The 10 Plus utilizes the same time-tested field-proven design of the OPW 10 Series Emergency Shut-off Valve – the most specified emergency shut-off valve in the world
- ◆ Fusible link releases to automatically close the valve to reduce fire hazard
- ◆ Rigorously tested to meet OPW's rigid quality standards
- ◆ E85 model has orange arm for visual indicator

Ordering Specifications

| Model # | Body Size | | Body Weight | | Connection Threads | Poppet Configuration | Application | Mounting System |
|---------------------|-------------------------------|----|-------------|------|--------------------|----------------------|-------------|-----------------|
| | in. | cm | lb. | kg | | | | |
| 10P-0150 | 1 ¹ / ₂ | 4 | 6.7 | 3.05 | NPT | Single | Pressure | Combination |
| 10P-0152 | 1 ¹ / ₂ | 4 | 6.8 | 3.10 | NPT | Double | Pressure | Combination |
| 10P-0152E85 *E85 | 1 ¹ / ₂ | 4 | 6.8 | 3.10 | NPT | Double | Pressure | Combination |
| 10P-0200 | 2 | 5 | 11.2 | 5.12 | NPT | Single | Pressure | Combination |
| 10P-0202 | 2 | 5 | 11.2 | 5.12 | NPT | Double | Pressure | Combination |
| 10P-0202RF *B100 | 2 | 5 | 11.2 | 5.12 | NPT | Double | Pressure | Combination |

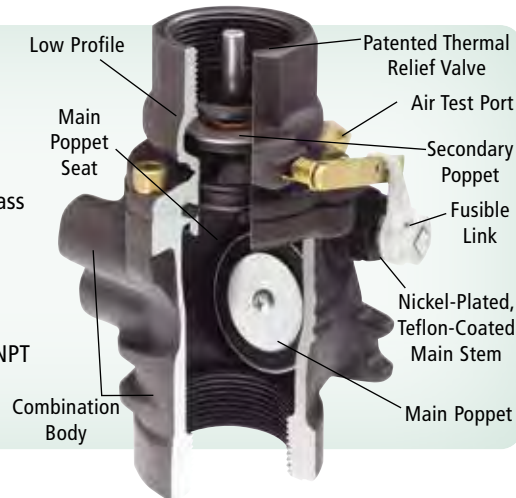
10 Plus Replacement Parts

| Part # | Description |
|--------------|--|
| 10RPLUS-0150 | 10 Plus Single Poppet Replacement Top |
| 10RPLUS-0152 | 10 Plus Double Poppet Replacement Top |
| 202950 | 1 ¹ / ₂ " Tetra Seal |
| 200143 | Safety Hub/Fusible Link |
| 213273 | E85 Safety Hub S/A Orange |
| H11361M | 2" Tetra Seal |



Materials

Top: Cast iron
Body: Cast iron
Disc: M-19
Carrier: Zinc-plated steel
Stem: Copper-nickel-chrome-plated brass
Poppet Spring: Stainless steel
Seal: M-19 O-Ring
Packing nut: Brass, Teflon®-coated
 Inlet and outlet thread: 1-1/2" (4 cm) NPT
 (British threads available)
 *With black Duragard® E-Coating



Features

- ◆ **High Flow Capacity** – the primary poppet is held out of the flow stream while the secondary poppet is held normally open to minimize head loss across the valve and to protect the poppet seals from damage and erosion. True 1-1/2" (4 cm) and 2" (5 cm) body sizes ensure maximum flow.
- ◆ **Fire Protection** – a fusible link trips the valve closed at 165° F to shut off fuel supply to the dispenser.
- ◆ **Main Poppet Seat Integral to the Top Assembly** – having the main poppet seat as an integral part of the valve top ensures a new, clean seating surface is installed each time the top is replaced. This design also ensures that the integrity of the seal between the valve top and bottom is verified during line testing and allows full inspection of the main poppet when the top is removed.
- ◆ **Duragard®-Coat Finish** – provides superior corrosion resistance.
- ◆ **Reliable Shut-off** – a stainless steel main spring, a teflon-coated brass packing nut and a copper/nickel/ chrome-plated brass stem are designed to prevent tar build-up and corrosion from interfering with poppet operation after long periods of normal service without activation.
- ◆ **Integral Test Port** – a 3/8" (9.5 mm) test port allows the piping system to be air-tested without breaking any piping connections.
- ◆ **Patented Thermal Relief Valve** – relieves excessive pressure over 25 psi caused by thermal expansion of fuel in the dispenser piping system in the event of fire (double-poppet models only).
- ◆ **Low-Profile Tops** – female and union-top double-poppet valves have a low-profile top to allow upgrading from OPW single-poppet valves without changing existing piping.
- ◆ **Multiple Mounting Options** – valves are boss-mounted to stabilizer bars in sumps and pans or mounted to bars embedded in the island with optional U-Bolt kits 10UBK-015 (not included). Versatile Combination Body (boss mount/ U-Bolt mount) models are available to accommodate most mounting applications with one valve style.
- ◆ **Underwriters Laboratories** –  listed for use with gasoline and 85% and 100% methanol. All OPW 10 Emergency Shut-Off Valves meet requirements of UL STANDARD 842.
- ◆ **Compatible with 85% ethanol (E85)**

10 Series Emergency Shut-Off Valves

OPW 10 Series Emergency Shut-off Valves are installed on fuel supply lines beneath dispensers at grade level to minimize hazards associated with collision or fire at the dispenser. If the dispenser is pulled over or dislodged by collision, the top of the valve breaks off at the integral shear groove, activating poppets and shutting off the flow of fuel. Single-poppet models shut off supply flow, while double-poppet models shut off supply as well as prevent release of fuel from the dispenser's internal piping. The base of the emergency valve is securely anchored to the concrete dispenser island through a stabilizer bar system within the dispenser sump or pan to ensure proper shearing action. The valve base is secured to the stabilizer bar using a three-point boss mount system or a U-Bolt Kit (not included) 10UBK-015 (1-1/2") and 10URK-0200 (2 sold separately). Valve inlet (bottom) connections are female pipe threads and outlet (top) connections are available with female threads, male threads or a union fitting. Other options include suction system models with a normally closed secondary poppet which maintains prime, and models with external threads on the inlet body which connect to secondary containment systems.

PA15 Offset Adaptor

The OPW PA15 Offset Adaptor is designed for adjusting misalignment of pipe in dispenser sumps and suction stubs. The PA15 has a low profile feature, and is designed for maximum flow.



Materials

Ductile Iron
 Black Duragard
 E-Coating

Ordering Specifications

| Part # | Thread Size | | Offset | | Height | | Width | | Body Weight | |
|---------|-------------|------|--------|------|--------|------|-------|-------|-------------|----|
| | in. | mm | in. | mm | in. | mm | in. | mm | lb. | kg |
| PA15-10 | 1 1/2 | 38.1 | 1 | 25 | 2 1/4 | 57.2 | 3 5/8 | 92.1 | 2 | .9 |
| PA15-15 | 1 1/2 | 38.1 | 1 1/2 | 38.1 | 2 1/4 | 57.2 | 4 1/8 | 104.8 | 2 | .9 |
| PA15-20 | 1 1/2 | 38.1 | 2 | 51 | 2 1/4 | 57.2 | 4 5/8 | 117.5 | 2 | .9 |

OPW 10 Series Emergency Shut-Off Valves

Ordering Specifications

Female Threaded Top (Outlet) Connection Valves

| Model # | Body Size | | Connection Threads | Poppet Configuration | Application | Replacement Top |
|------------|-----------|----|--------------------|----------------------|-------------|-----------------|
| | in. | cm | | | | |
| 10BF-5725 | 1½ | 4 | NPT | Single | Pressure | 10RFT-5750 |
| 10BFP-5726 | 1½ | 4 | NPT | Double | Pressure | 10FTP-5701 |
| 10RF-2001 | 2 | 5 | NPT | Single | Pressure | 10RFT-5742 |
| 10RFP-2002 | 2 | 5 | NPT | Double | Pressure | 10RFTP-5752 |

Male Threaded-Top (Outlet) Connection Valves

| Model # | Body Size | | Connection Threads | Poppet Configuration | Application | Replacement Top |
|--------------|-----------|----|--------------------|----------------------|-------------|-----------------|
| | in. | kg | | | | |
| 10BM-5825 | 1½ | 4 | NPT | Single | Pressure | 10RMT-5850 |
| 10BHMP-5830 | 1½ | 4 | NPT | Double | Pressure | 10RMTP-5851 |
| 10SBHMP-5830 | 1½ | 4 | NPT | Double | Suction | 10SHMTP-5811 |
| 10RM-2003 | 2 | 5 | NPT | Single | Pressure | 10RMT-5842 |
| 10RMP-2004 | 2 | 5 | NPT | Double | Pressure | 10RMTP-5852 |

Union-Top (Outlet) Connection Valves

| Model # | Body Size | | Connection Threads | Poppet Configuration | Application | Replacement Top |
|-------------|-----------|----|--------------------|----------------------|-------------|-----------------|
| | in. | kg | | | | |
| 10BU-5925 | 1½ | 4 | NPT | Single | Pressure | 10RUTC-5975 |
| 10BUP-5926 | 1½ | 4 | NPT | Double | Pressure | 10UTCP-5901 |
| 10SBUP-5926 | 1½ | 4 | NPT | Double | Suction | 10SUTCP-5911 |
| 10RU-2005 | 2 | 5 | NPT | Single | Pressure | 10RUTC-5962 |
| 10RUP-2006 | 2 | 5 | NPT | Double | Pressure | 10RUTCP-5972 |

NOTE: All BSPP Thread Shear Valves must be ordered through OPW's Europe or Asia office.

IMPORTANT NOTICE:

When mounting the OPW 10 Series Emergency Shut-off Valves, the anchoring system employed must withstand a force greater than 650 ft. pounds per valve. NFPA Code 30A, Automotive and Marine Service Station Code, requires that the automatic closing feature of emergency shut-off valves be checked at least once per year by manually tripping the hold-open linkage. OPW recommends the use of Flexworks Stabilizer Bar Support System for proper mounting of 10 Series Valves.

NOTICE:

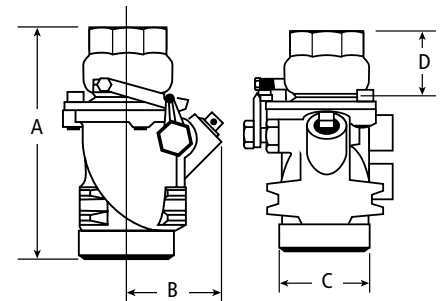
As per NFPA 30A, electrical supply to the submersible pump must always be disconnected before servicing meters, dispensers or emergency shut-off valves.

Replacement Valve Tops

| Model # | Body Size | | Connection Threads | Poppet Configuration | Application | Top Connection | Profile |
|--------------|-----------|----|--------------------|----------------------|-------------|----------------|-------------|
| | in. | cm | | | | | |
| 10RFT-5750 | 1½ | 4 | NPT | Single | Pressure | Female | |
| 10RFTP-5751 | 1½ | 4 | NPT | Double | Pressure | Female | |
| 10FTP-5701 | 1½ | 4 | NPT | Double | Pressure | Female | Low Profile |
| 10RMT-5850 | 1½ | 4 | NPT | Single | Pressure | Male | |
| 10RMTP-5851 | 1½ | 4 | NPT | Double | Pressure | Male | |
| 10SHMTP-5811 | 1½ | 4 | NPT | Double | Suction | Male | |
| 10RUTC-5975 | 1½ | 4 | NPT | Single | Pressure | Complete Union | |
| 10UTCP-5901 | 1½ | 4 | NPT | Double | Pressure | Complete Union | Low Profile |
| 10RFT-5742 | 2 | 4 | NPT | Single | Pressure | Female | |
| 10RFTP-5752 | 2 | 5 | NPT | Double | Pressure | Female | |
| 10RMT-5842 | 2 | 5 | NPT | Single | Pressure | Male | |
| 10RMTP-5852 | 2 | 5 | NPT | Double | Pressure | Male | |
| 10RUTC-5962 | 2 | 5 | NPT | Single | Pressure | Complete Union | |
| 10RUTCP-5972 | 2 | 5 | NPT | Double | Pressure | Complete Union | |

1½" Dimensions

| | 10BF | | 10BFP 10SBFP | | 10BM | | 10BHMP 10SBHMP | | 10BU | | 10BUP 10SBUP | |
|---|---------------------------------|-----|---------------------------------|-----|---------------------------------|-----|---------------------------------|-----|---------------------------------|-----|---------------------------------|-----|
| | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm |
| A | 6 ²¹ / ₆₄ | 161 | 6 ²¹ / ₆₄ | 161 | 6 ¹³ / ₁₆ | 173 | 7 ¹¹ / ₁₆ | 195 | 7 ¹ / ₄ | 184 | 7 ¹ / ₄ | 184 |
| B | 2 ³ / ₄ | 70 | 2 ³ / ₄ | 70 | 2 ³ / ₄ | 70 | 2 ³ / ₄ | 70 | 2 ³ / ₄ | 70 | 2 ³ / ₄ | 70 |
| C | 2 ¹¹ / ₁₆ | 69 | 2 ¹¹ / ₁₆ | 69 | 2 ¹¹ / ₁₆ | 69 | 2 ¹¹ / ₁₆ | 69 | 2 ¹¹ / ₁₆ | 69 | 2 ¹¹ / ₁₆ | 69 |
| D | 1 ³ / ₄ | 44 | 1 ³ / ₄ | 44 | 2 ¹ / ₄ | 57 | 3 ¹ / ₈ | 79 | 2 ¹¹ / ₁₆ | 69 | 2 ¹¹ / ₁₆ | 69 |



2" Dimensions

| | 10RF 10RFS | | 10RM 10RMS | | 10RU 10RUS | | 10RFP 10RFSP | | 10RMP 10RMSP | | 10RUP 10RUSP | |
|---|--------------------------------|-----|---------------------------------|-----|---------------------------------|-----|--------------------------------|-----|---------------------------------|-----|---------------------------------|-----|
| | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm |
| A | 8 ³ / ₈ | 213 | 9 ²⁷ / ₃₂ | 250 | 9 ¹³ / ₃₂ | 239 | 8 ³ / ₈ | 213 | 9 ²⁷ / ₃₂ | 250 | 9 ¹³ / ₃₂ | 239 |
| B | 3 ⁷ / ₆₄ | 79 | 3 ⁷ / ₆₄ | 79 | 3 ⁷ / ₆₄ | 79 | 3 ⁷ / ₆₄ | 79 | 3 ⁷ / ₆₄ | 79 | 3 ⁷ / ₆₄ | 79 |
| C | 3 ¹ / ₄ | 83 | 3 ¹ / ₄ | 83 | 3 ¹ / ₄ | 83 | 3 ¹ / ₄ | 83 | 3 ¹ / ₄ | 83 | 3 ¹ / ₄ | 83 |
| D | 3 ¹ / ₁₆ | 78 | 4 ⁹ / ₁₆ | 116 | 3 ⁷ / ₈ | 98 | 3 ¹ / ₁₆ | 78 | 4 ⁹ / ₁₆ | 116 | 3 ⁷ / ₈ | 98 |

Other Replacement Parts

| Part # | Description |
|-----------|-----------------------------|
| 202950 | 1½" Tetra Seal |
| H11361M | 2" Tetra Seal |
| H07659M | Link Spring |
| H07643RB | Link Retaining Screw |
| H04788M | Hold-Open Link (Brass) |
| H05361 | Safety Hub S/A-Fusible Link |
| 10UBK-015 | U-Bolt Kit for 1½" |
| 10URK-020 | U-Bolt Kit for 2" |

Materials

Body: Cast iron with black Duragard® E-coating

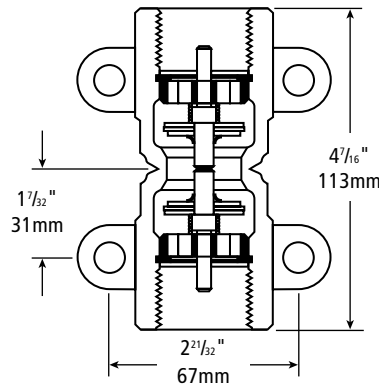
Discs: M-19 Viton®

60VP-1001



Features


- ◆ **1" Female Connection to Both Dispenser and Underground Piping**
- ◆ **Multiple Mounting Methods** – mounting Boss accepts either U-Bolt or Straight Bolt mounting kits.
- ◆ **Duragard® E-Coat Finish** – provides superior corrosion resistance.



OPW 60V Series Vapor Line Shear Valves


OPW 60VP-1001

Poppeted Vapor Saver

- ◆ Double-poppeted design incorporated to help prevent vapor loss in the event dispenser is toppled
- ◆ CARB approved
- ◆ UL-listed 

OPW 60VSP-1001

Poppeted Vapor Saver

- ◆ Double-poppeted design incorporated to help prevent vapor loss in the event the dispenser is toppled
- ◆ CARB approved
- ◆ UL listed 
- ◆ 60VSPC-1001 features additional external threads on valve outlet for connection to a secondary containment system

Ordering Specifications

| Product # | Connections | Poppeted |
|-----------|--|----------|
| 60V-1000 | 1" x 1" (3 x 3 cm) FNPT | |
| 60VP-1001 | 1" x 1" (3 x 3 cm) FNPT | • |
| 60VK-1002 | U-Bolt Mounting Kit Includes: (2) 3/8" (9.5 mm) U-bolts, (4) washers, (4) nuts | |
| 60VK-1003 | Straight Bolt Mounting Kit Includes: (4) 3/8" (9.5 mm) 16 bolts, (4) washers, (4) nuts | |

60V Instruction Sheet
Order Number: **H12133M**

OPW 60VS-1000 Line Saver

- ◆ Shear section breaks on impact to minimize damage to underground piping.

OPW 60V-1000 Line Saver

- ◆ Shear section breaks on impact to minimize damage to underground piping.

OPW 60VS Series Vapor Line Shear Valves

OPW 60 Series Vapor Line Shear Valves are installed on vapor return lines beneath dispensers at grade level to minimize hazards associated with collision or fire at the dispenser. If the dispenser is pulled over or dislodged by collision, the top of the valve breaks free at the integral shear groove to minimize damage to the dispenser piping. Poppeted models afford additional protection by preventing the release of vapors from the dispenser's internal piping and the vapor line to the tank. The base of the Vapor Line Shear Valve is securely anchored to the concrete dispenser island through a stabilizer bar system within the dispenser sump or pan while the valve top is secured to the dispenser structure to ensure proper shearing action. OPW Vapor Line Shear Valves are designed to meet the requirements of NFPA-30A Section 4-3.7. Poppeted models are UL and CARB-approved.

Materials

Body: Cast iron with black Duragard® E-Coating

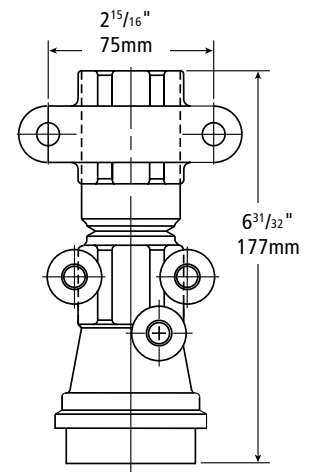
Discs: M -19 Viton®

60VSPC-1001



Features

- ◆ 1-1/2" female connection to underground piping.
- ◆ 1" female connection to dispenser piping.
- ◆ Air-test port to enable vapor line testing without breaking pipe connections.
- ◆ Choice of top or side inlet connection.
- ◆ Three-Point Boss Mount stabilizer bar lower mounting connection; U-Bolt upper mounting connection.



Ordering Specifications

| Product # | Connections | Poppeted | Containment Threads |
|-------------|---|----------|---------------------|
| 60VS-1000 | 1" x 1½" (3 x 4 cm) FNPT | | |
| 60VSP-1001 | 1" x 1½" (3 x 4 cm) FNPT | • | |
| 60VSPC-1001 | 1" x 1½" (3 x 4 cm) FNPT | • | • |
| 60VSK-1002 | Mounting Kit Includes: (2) Lockwashers, (2) Nuts, (3) Hex Screws, (3) Washers | | |

60VS Instruction Sheet
Order Number: **H12291M**

**Listings and
Certifications**



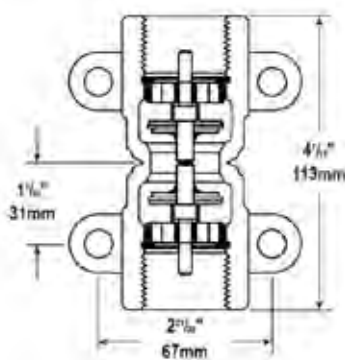
60V-DEF Shear Valve

Starting with 2010 Models, DEF was required in diesel-powered trucks utilizing Selective Catalytic Reduction (SCR) to meet federal emissions standards. The dispensing infrastructure at travel centers and fleet refueling sites continues to evolve as DEF compatible equipment is installed.

OPW's 60V-DEF Shear Valve has a unique coating that allows for DEF compatibility while maintaining the reliable shear performance of cast iron. Third-party tested to ensure compatibility with the ISO 22241 Standard, our new 60V-DEF Shear Valve provides peace of mind and minimizes damage to your DEF Dispensing Equipment in the case of impact collision while preventing product loss.

Features & Benefits:

- ◆ Utilizes DEF Industry Standard BSPP Connections for Easy and Long-Term Sealing
- ◆ Machined Shear Groove for Reliable Shear Performance
- ◆ Versatile to other tread types with DEF compatible stainless steel adaptors
- ◆ Anchoring Brackets Built into Body



60V DEF

1" female BSPP threaded connections with gasket for easy and long-term sealing

Machined shear groove for reliable shear performance

Coated body for DEF compatibility (3rd party lab tested to meet ISO 22241 compatibility with DEF)

Anchoring brackets built into body

Ordering Specifications - 60V-DEF Shear Valve

| Model # | Description |
|---------|-----------------------|
| 60V-DEF | 60V DEF Shear Valve |
| 205900 | 1" Female NPT Adaptor |
| 205899 | 1" Male BSPP Adaptor |

Adaptors Available For Installation Flexibility

1" female NPT

1" male BSPP

1" male BSPP

Model 205900

1" male BSPP

Model 205899

OPW Island Forms and Protective Curbing

OPW is the world leader in commercial and industrial protective curbing products. The company designs, engineers and manufactures island forms, curb fascia, pipe and bumper guards to meet virtually any protective curbing application.

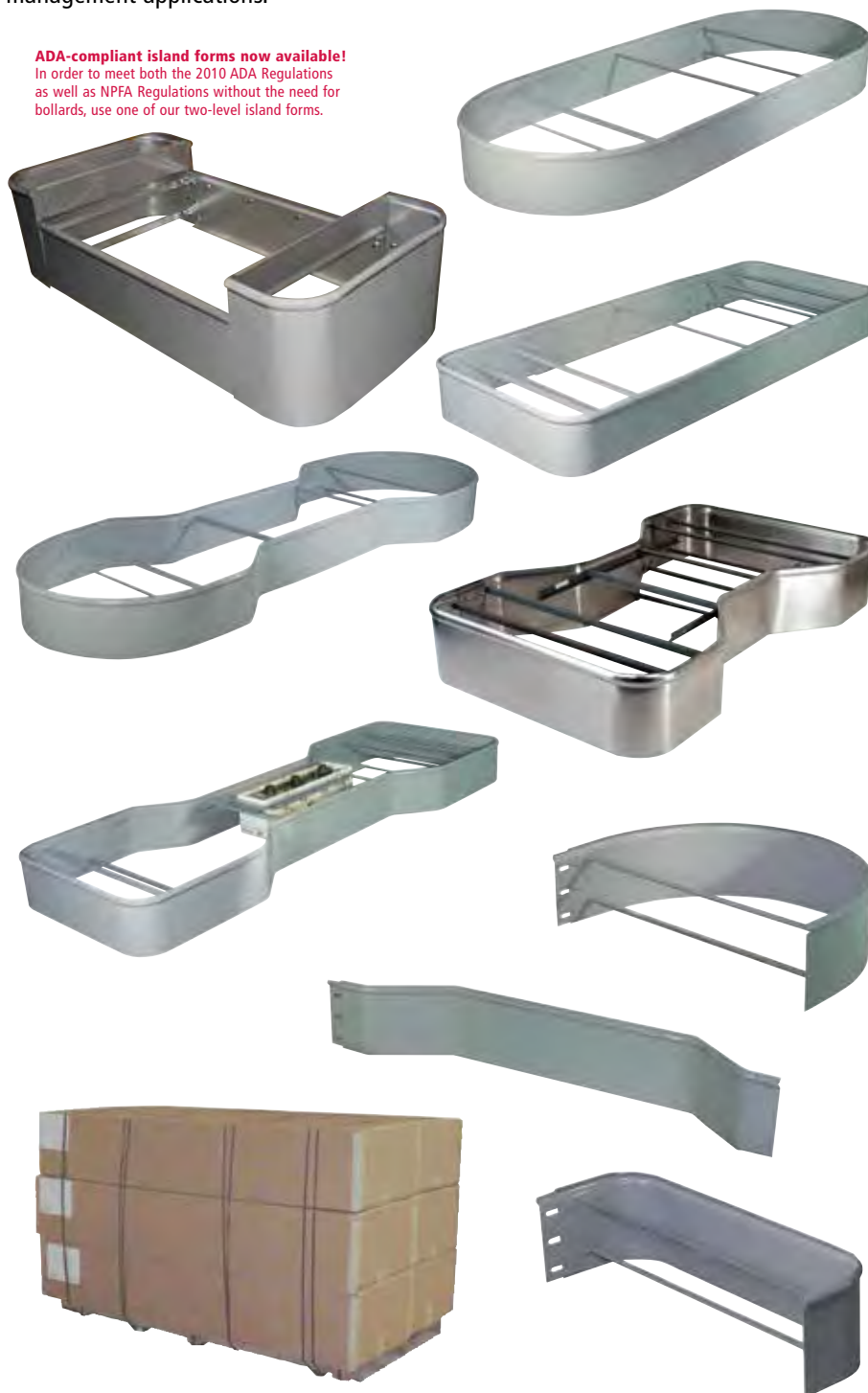
OPW Island Forms Feature:

- ◆ **Variety of End Sections, Lengths, Widths and Styles** – allows for a customized fit to site constraints and requirements.
- ◆ **Spacious Mid-Section** – provides ample room to install standard and wide-access dispenser sumps from the top of the island.
- ◆ **Unique Sump Mounting System** – ensures the dispenser sump is anchored to the Island Form and adjustable to accommodate various width sumps.
- ◆ **Convenient Shipping and Storage** – revolutionary threaded-stud bracing system allows forms to stack together and enables boxing of the island assembly.
- ◆ **Easy Installation** – cross braces bolt onto threaded studs. Field welding is not required.
- ◆ **Attractive Appearance** – link plates impart a crisp, clean exterior joint between sections for a smooth, finished presentation.
- ◆ **Material** – Standard models are 12 gauge steel powder coated gray and stainless steel models are 304 stainless.

OPW Island Forms

Designed to protect gasoline dispensers, electronic equipment, kiosks, bank teller and ATM equipment, as well as to restrict or route material handling equipment in warehouses, OPW Island Forms and Protective Curbing streamline traffic flows in toll booths and quick-serve restaurants and various other commercial traffic management applications.

ADA-compliant island forms now available!
In order to meet both the 2010 ADA Regulations as well as NFPA Regulations without the need for bollards, use one of our two-level island forms.

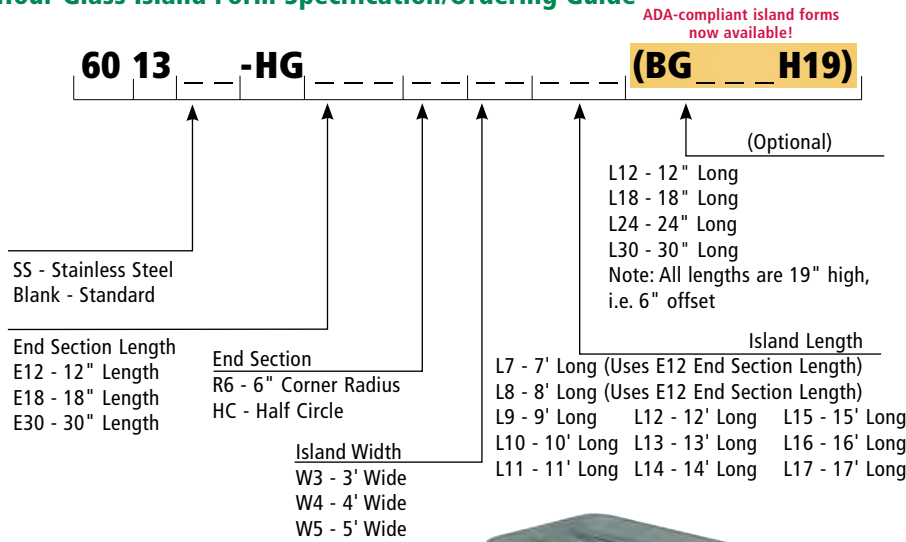


Listings and Certifications



2005 UL Standard for safety for non-metallic underground piping for flammable liquids, UL971.

Hour Glass Island Form Specification/Ordering Guide

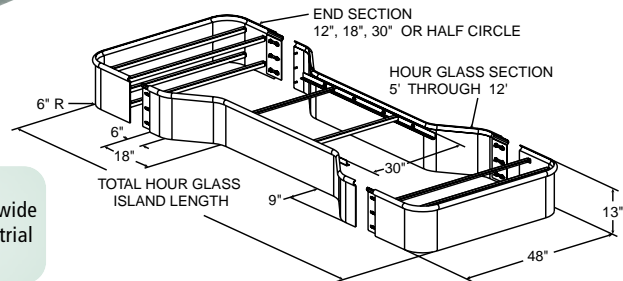


OPW Standard Island Forms

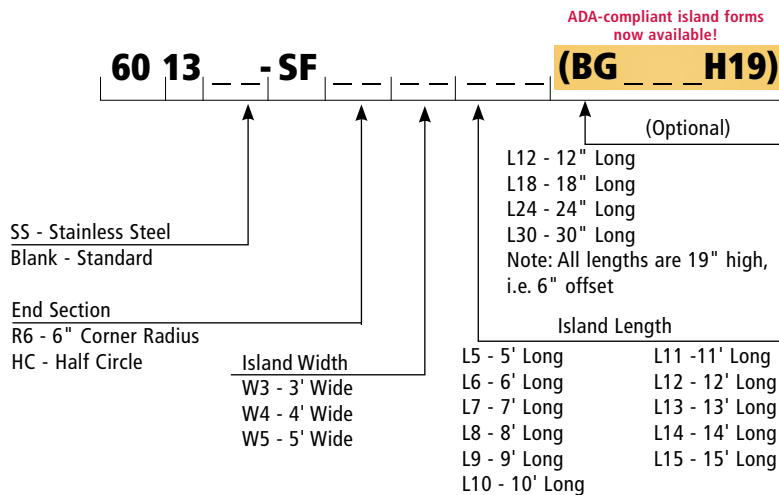
Specify Standard Island Form configurations designed by OPW for a wide variety of retail, commercial and industrial traffic management applications. Available in hot-rolled 12-gauge primed gray steel and stainless steel models are 304 grade stainless.

Hour Glass Island Forms

Hour Glass Island Forms are designed with side sections integrating a double-reverse 9" taper to provide easy access to multi-product gasoline dispensers while protecting expensive electronic equipment. Ends of these islands can be extended to wrap around canopy columns, hose bibs or trash receptacles by simply adding straight sections.



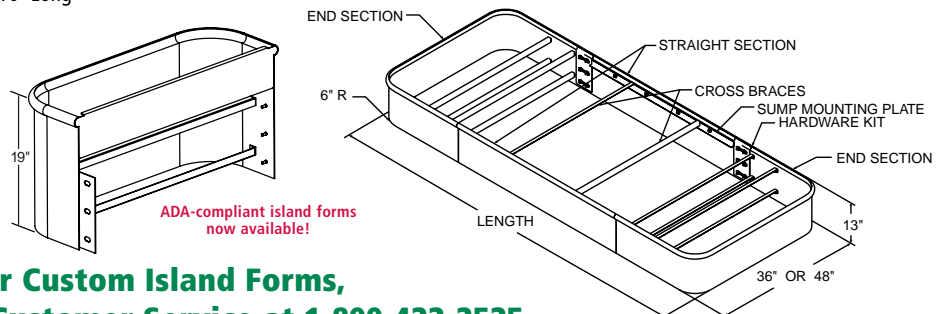
Standard (Straight) Island Form Specification/Ordering Guide



Note:
End Sections on Standard Island Forms are 2'-6" in length.

Standard (Straight) Island Forms

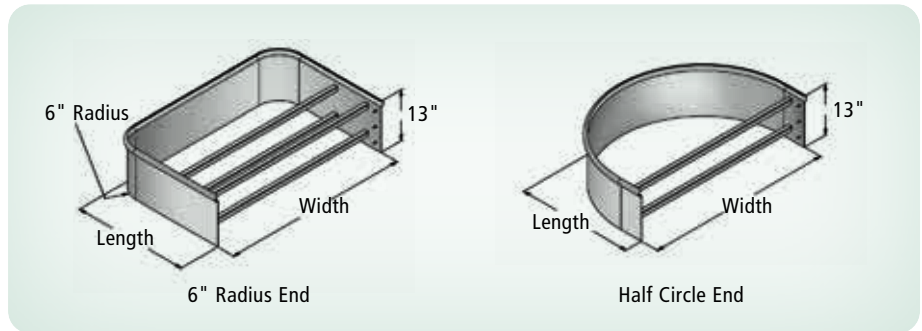
Straight Island Forms are designed with straight side sections to provide a convenient means of installing multiple dispensers on a single island. Straight Island Forms are also used to protect teller and ATM equipment at banks, restrict or route material handling equipment in warehouses, streamline traffic flows in toll booths and quick-serve restaurants and various other commercial traffic routing applications. Standard models are steel and stainless steel models are 304 stainless.



**For Custom Island Forms,
Contact OPW Customer Service at 1-800-422-2525**

Build Your Own Island Form Or Curbing From Individual Sections

Build your own Island Forms and Protective Curbing to fit your particular application from standard sections. Standard models are steel and stainless steel models are 304 stainless.



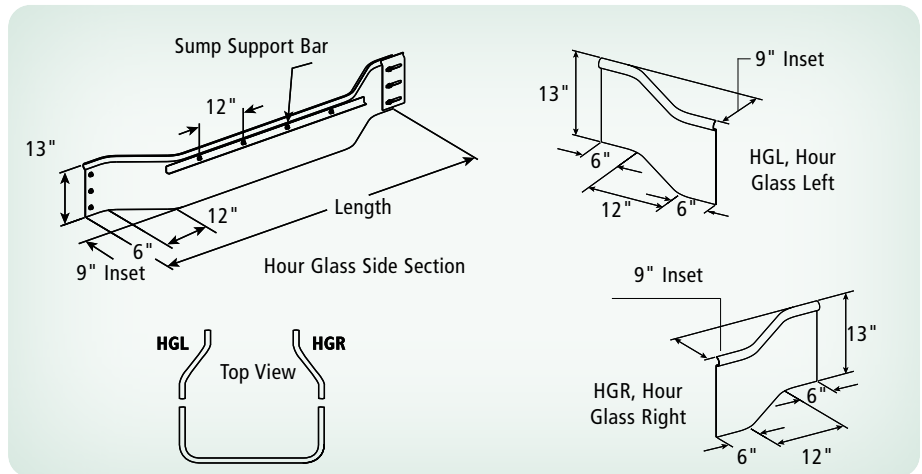
Standard Island Form End Sections Ordering Specifications (Standard End Sections)

End Sections are available to build customized Island Forms from standard OPW Island Form components. Sections are available in Half Circle or 6" Radius configurations. Each End Section is pre-braced and includes all required hardware for assembly.

| Model # | Radius (in.) | Width (ft) | Length | Weight |
|----------------|--------------|------------|--------|---------|
| 6013P-EHCW3L30 | Half Circle | 3 | 2' 6" | 37 lbs. |
| 6013P-EHCW4L30 | Half Circle | 4 | 2' 6" | 40 lbs. |
| 6013P-ER6W3L18 | 6 | 3 | 1' 6" | 37 lbs. |
| 6013P-ER6W3L30 | 6 | 3 | 2' 6" | 45 lbs. |
| 6013P-ER6W4L12 | 6 | 4 | 1' | 35 lbs. |
| 6013P-ER6W4L18 | 6 | 4 | 1' 6" | 40 lbs. |
| 6013P-ER6W4L30 | 6 | 4 | 2' 6" | 52 lbs. |

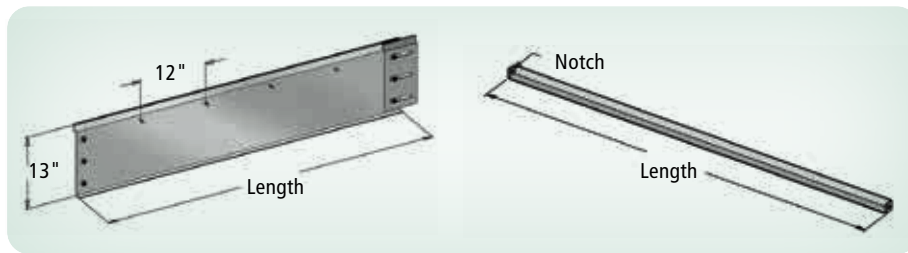
Hour Glass Sections

Hour Glass Sections are designed with double-reverse 9" tapers to provide easy access to multi-product gasoline dispensers. One-piece Hour Glass Sections are available from 5' through 9'. Sump Support Bars are included with individual Hour Glass Sections. HGL and HGR sections can be used in conjunction with Straight Sections when designing longer Hour Glass Islands, or for use in Protective Curbing applications.



Ordering Specifications (Hour Glass)

| Model # | Length | Comments | Wgt (lbs.) |
|------------|--------|-------------------------------|------------|
| 6013P-HGL | 2' | Hour Glass Left Side Section | 13 |
| 6013P-HGR | 2' | Hour Glass Right Side Section | 13 |
| 6013P-HG05 | 5' | Hour Glass Side Section | 35 |
| 6013P-HG06 | 6' | Hour Glass Side Section | 40 |
| 6013P-HG07 | 7' | Hour Glass Side Section | 45 |
| 6013P-HG08 | 8' | Hour Glass Side Section | 50 |



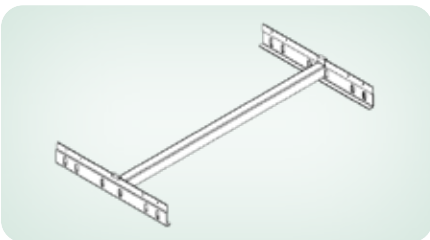
Straight Sections

Straight Sections are designed with a 1" bottom flange to add rigidity for accurate alignment of sections. Island Form End Sections are easily extended with various-length Straight Sections. Sump Support Bars are not included with individual Straight Sections. Straight Sections are key to the design of Protective Curbing.

Ordering Specifications

| Model # | Length | Weight |
|------------|--------|---------|
| 6013P-S01 | 1' | 6 lbs. |
| 6013P-S015 | 1' 6" | 9 lbs. |
| 6013P-S02 | 2' | 12 lbs. |
| 6013P-S025 | 2' 6" | 15 lbs. |
| 6013P-S03 | 3' | 18 lbs. |
| 6013P-S035 | 3' 6" | 21 lbs. |
| 6013P-S04 | 4' | 24 lbs. |
| 6013P-S05 | 5' | 30 lbs. |
| 6013P-S06 | 6' | 36 lbs. |
| 6013P-S07 | 7' | 42 lbs. |

13" Mounting Plate
(Includes Hardware)



Sump Loop Mounting Bracket

Ordering Specifications

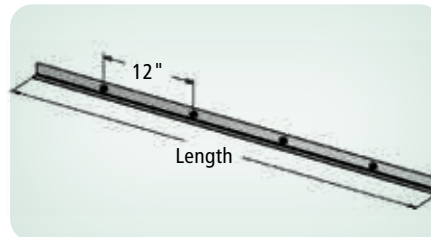
| Model # | Mounting Kit Length |
|------------|---------------------|
| 6000P-SMK3 | 3 Foot |
| 6000P-SMK4 | 4 Foot |
| 6000P-SMK5 | 5 Foot |

Cross Braces

Cross Braces are notched on both ends for use with Sump Support Bars. Holes punched in both ends slide over threaded studs to bolt the brace to the island. Bracing is recommended every 2 feet along the inside of Hour Glass and Straight Sections.

Ordering Specifications

| Model # | Length (in.) | Weight |
|-----------|--------------|--------|
| 6000P-B24 | 24 | 1 lbs. |
| 6000P-B30 | 30 | 2 lbs. |
| 6000P-B36 | 36 | 2 lbs. |
| 6000P-B42 | 42 | 2 lbs. |
| 6000P-B48 | 48 | 3 lbs. |
| 6000P-B60 | 60 | 3 lbs. |



Sump Support Bars

Sump Support Bars are designed to allow OPW Island Forms to accept various-width sumps. The bars are positioned to locate the top of OPW Dispenser Sump Frames 1/2" above finished island grade to direct water drainage away from the sump. Sump Support Bars must be specified when designing Island Forms from individual Straight Sections.

Ordering Specifications

| Model # | Length (in.) | Weight |
|-----------|--------------|--------|
| 6000P-SMP | 54 | 3 lbs. |

Build Your Own Island Form Or Curbing

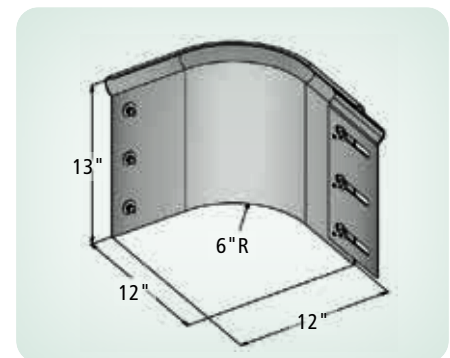
Build your own Island Forms and Protective Curbing to fit your particular application from standard sections. Standard models are steel and stainless steel models are 304 stainless.

Corner Sections

Corner Sections are designed for use in various Island Form widths, or for use in Protective Curbing applications.

Ordering Specifications

| Model # | Length (in.) | Weight |
|-----------|--------------|---------|
| 6013P-R6C | 12 | 10 lbs. |



Curb Fascia Brackets

Curb Fascia Brackets replace cross braces and are designed to brace sections when utilized as protective curb fascia. The brackets are hole-punched for bolting to threaded studs, and allow for 1/2" diameter #4 reinforcement bars to secure the sections in place.

Ordering Specifications

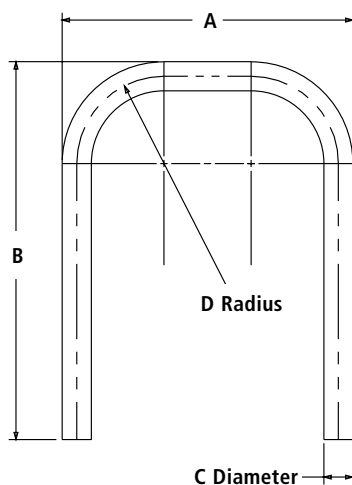
| Model # | Length (in.) | Weight |
|--------------------------------------|--------------|--------|
| 6000P-CFB | 11 | 1 lbs. |
| 6013P-Link Steel (12K Plate) | | |
| 6013SSP-Link Stainless Steel Link | | |

OPW Pipe Guards

Pipe Guards help protect gasoline dispensers, light poles and other equipment or property from damage.

Features:

- ◆ **Choice of Styles** – OPW Pipe Guards are available in straight, half circle and double radius bends
- ◆ **Variety of Sizes Available** – 28", 36", 40" and 48" widths for mounting inside or outside of island forms
- ◆ **Various Lengths Available** – for deeper, more secure anchors in islands and concrete slabs
- ◆ **Sturdy Construction** – OPW Pipe Guards are manufactured from 4" O.D. and 3.5" O.D. schedule 40 steel pipe
- ◆ **Aesthetically-Pleasing Appearance** – OPW Pipe Guards are primer-finished



Double Radius Pipe Guards



Ordering Specifications

Double Radius Pipe Guards

| Model # | Material | Units (inches) | | | |
|--------------|-----------|----------------|----|-----|-------|
| | | A | B | C | D |
| 6PGR3-4153 | Steel | 41 | 53 | 3.5 | 14 |
| 6PGR3-4850 | Steel | 48 | 50 | 3.5 | 15.75 |
| 6PGR3-4859 | Steel | 48 | 59 | 3.5 | 15.75 |
| 6PGR3SS-3672 | Stainless | 36 | 72 | 3.5 | 14 |
| 6PGR3SS-4350 | Stainless | 43 | 50 | 3.5 | 19.5 |
| 6PGR3SS-5445 | Stainless | 54 | 45 | 3.5 | 19.5 |
| 6PGR4-4153 | Steel | 41 | 53 | 4 | 14 |
| 6PGR4-4174 | Steel | 41 | 74 | 4 | 14 |
| 6PGR4-4951 | Steel | 49 | 51 | 4 | 16 |
| 6PGR4-4972 | Steel | 49 | 72 | 4 | 16 |

For more information contact OPW Customer Service at 1-800-422-2525; International call 1-513-870-3315.

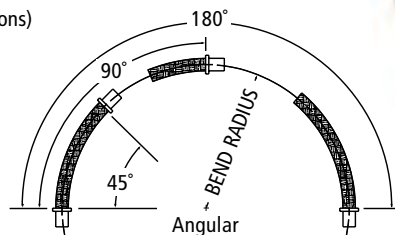
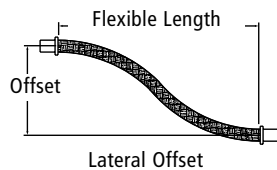
Materials:

Hose: 322 Stainless Steel
Wire Braid: 304 Stainless Steel
Pipe Nipples: SCH. #80 Stainless Steel
Swivel: Viton®/Buna Seals

Features:

- ◆ Maximum working pressure: 150 PSIG (10 bar)
- ◆ Service temperature range: -320° F to 1500° F
- ◆ Minimum burst pressure 750 PSIG (52 bar)
- ◆ Inherent hoop strength of convoluted hose allows full vacuum service

ULC/ORD-C536-1998
 (underground and above ground installations)



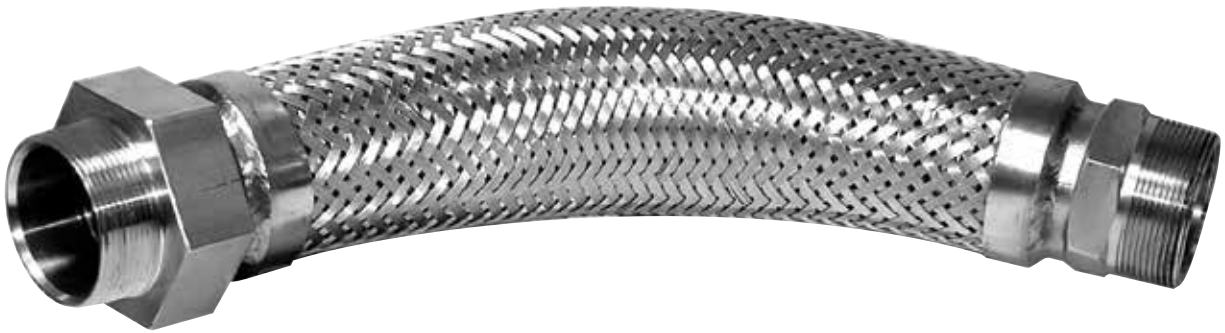
OPW Stainless Steel Flexible Connectors

Stainless Steel Flexible Connectors provide flexibility in the installation and operation of fuel piping systems. Flexible Connectors can be used as a convenient means of connecting piping to pumps and dispensers and throughout the piping systems where connections and changes of direction are necessary. Flexible Connectors dampen the effect of ground and/or piping movement. All stainless steel construction ensures long service life and corrosion protection. Flexible Connectors are rated for 150 psig (10 bar) working pressure, as well as for full vacuum service. Compatible with diesel, gasoline, methanol, ethanol and MTBE. Available as Male by Male and Male Swivel by Male, Male 90° and Easy Clamp Connectors.

NAFTA approved, can be used in any country.

Ordering Specifications and Dimensions

| MALE x MALE | | | | | | | Max. Angular Bending (Degree) | | Max. Lateral Offset | | | | Min. Bend Radius | | | |
|-------------|-----------------|------|--------|-------|-----------|-------|-------------------------------|----------------------|---------------------|-------|----------------------|------|---------------------|-------|----------------------|-------|
| Model # | NPT Thread Size | | Length | | Hose O.D. | | Static Position | Intermittent Flexing | Static Installation | | Intermittent Flexing | | Static Installation | | Intermittent Flexing | |
| | in. | mm | in. | mm | in. | mm | | | in. | mm | in. | mm | in. | mm | in. | mm |
| FC075-MM12 | .75 | 19.1 | 12 | 304.8 | 1.0 | 25.4 | 100° | 55° | 2.0 | 50.8 | 1.2 | 30.5 | 4.5 | 114.3 | 8 | 203.2 |
| FC10-MM12 | 1 | 25.4 | 12 | 304.8 | 1.3 | 33.0 | 70° | 45° | 1.4 | 35.6 | 0.9 | 22.9 | 5.5 | 139.7 | 9 | 228.6 |
| FC10-MM18 | 1 | 25.4 | 18 | 457.2 | 1.3 | 33.0 | 135° | 85° | 4.5 | 114.3 | 2.1 | 53.3 | 5.5 | 139.7 | 9 | 228.6 |
| FC10-MM24 | 1 | 25.4 | 24 | 609.6 | 1.3 | 33.0 | 180° | 125° | 8.6 | 218.4 | 2.1 | 53.3 | 5.5 | 139.7 | 9 | 228.6 |
| FC15-MM12 | 1.5 | 38.1 | 12 | 304.8 | 2.25 | 57.2 | 90° | 35° | 1.5 | 38.1 | .75 | 19.1 | 4 | 101.6 | 11 | 279.4 |
| FC15-MM14 | 1.5 | 38.1 | 14 | 355.6 | 2.25 | 57.2 | 90° | 35° | 1.5 | 38.1 | .75 | 19.1 | 4 | 101.6 | 11 | 279.4 |
| FC15-MM18 | 1.5 | 38.1 | 18 | 457.2 | 2.25 | 57.2 | 150° | 55° | 4.0 | 101.6 | 1.5 | 38.1 | 4 | 101.6 | 11 | 279.4 |
| FC15-MM24 | 1.5 | 38.1 | 24 | 609.6 | 2.25 | 57.2 | 180° | 85° | 8.0 | 203.2 | 2.75 | 69.9 | 4 | 101.6 | 11 | 279.4 |
| FC15-MM30 | 1.5 | 38.1 | 30 | 762.0 | 2.25 | 57.2 | 180° | 115° | 12.0 | 304.8 | 2.75 | 69.9 | 4 | 101.6 | 11 | 279.4 |
| FC20-MM12 | 2 | 50.8 | 12 | 304.8 | 2.72 | 69.1 | 75° | 30° | 1.5 | 38.1 | 0.60 | 15.2 | 5 | 127.0 | 12 | 304.8 |
| FC20-MM14 | 2 | 50.8 | 14 | 355.6 | 2.72 | 69.1 | 75° | 30° | 1.5 | 38.1 | 0.60 | 15.2 | 5 | 127.0 | 12 | 304.8 |
| FC20-MM18 | 2 | 50.8 | 18 | 457.2 | 2.72 | 69.1 | 120° | 50° | 3.0 | 76.2 | 1.5 | 38.1 | 5 | 127.0 | 12 | 304.8 |
| FC20-MM24 | 2 | 50.8 | 24 | 609.6 | 2.72 | 69.1 | 180° | 75° | 7.0 | 177.8 | 3.0 | 76.2 | 5 | 127.0 | 12 | 304.8 |
| FC20-MM36 | 2 | 50.8 | 36 | 914.4 | 2.72 | 69.1 | 180° | 105° | 12.0 | 304.8 | 3.0 | 76.2 | 5 | 127.0 | 12 | 304.8 |
| FC30-MM18 | 3 | 76.2 | 18 | 457.2 | 3.97 | 100.8 | 70° | 35° | 2.0 | 50.8 | 1.0 | 25.4 | 8 | 203.2 | 16 | 406.4 |
| FC30-MM24 | 3 | 76.2 | 24 | 609.6 | 3.97 | 100.8 | 110° | 55° | 4.8 | 121.9 | 2.5 | 63.5 | 8 | 203.2 | 16 | 406.4 |



Integral Swivel Flex Connector

Ordering Specifications and Dimensions

| MALE SWIVEL x MALE | | | | | | | Max. Angular Bending (Degree) | | Max. Lateral Offset | | | | Min. Bend Radius | | | |
|--------------------|-----------------|------|--------|-------|-----------|------|-------------------------------|----------------------|---------------------|-------|----------------------|------|---------------------|-------|----------------------|-------|
| Model # | NPT Thread Size | | Length | | Hose O.D. | | Static Position | Intermittent Flexing | Static Installation | | Intermittent Flexing | | Static Installation | | Intermittent Flexing | |
| | in. | mm | in. | mm | in. | mm | | | | | | | | | | |
| FC15-SWM12 | 1.5 | 38.1 | 12 | 304.8 | 2.25 | 57.2 | 90° | 35° | 1.5 | 38.1 | 0.75 | 19.1 | 4 | 101.6 | 11 | 279.4 |
| FC15-SWM14 | 1.5 | 38.1 | 14 | 355.6 | 2.25 | 57.2 | 90° | 35° | 1.5 | 38.1 | 0.75 | 19.1 | 4 | 101.6 | 11 | 279.4 |
| FC15-SWM18 | 1.5 | 38.1 | 18 | 457.2 | 2.25 | 57.2 | 150° | 55° | 4.0 | 101.6 | 1.50 | 38.1 | 4 | 101.6 | 11 | 279.4 |
| FC15-SWM24 | 1.5 | 38.1 | 24 | 609.6 | 2.25 | 57.2 | 180° | 85° | 8.0 | 203.2 | 2.75 | 69.9 | 4 | 101.6 | 11 | 279.4 |
| FC20-SWM12 | 2 | 50.8 | 12 | 304.8 | 2.72 | 69.1 | 75° | 30° | 1.5 | 38.1 | 0.60 | 15.2 | 5 | 127.0 | 12 | 304.8 |
| FC20-SWM14 | 2 | 50.8 | 14 | 355.6 | 2.72 | 69.1 | 75° | 30° | 1.5 | 38.1 | 0.60 | 15.2 | 5 | 127.0 | 12 | 304.8 |
| FC20-SWM18 | 2 | 50.8 | 18 | 457.2 | 2.72 | 69.1 | 120° | 50° | 3.0 | 76.2 | 1.50 | 38.1 | 5 | 127.0 | 12 | 304.8 |
| FC20-SWM24 | 2 | 50.8 | 24 | 609.6 | 2.72 | 69.1 | 180° | 75° | 7.0 | 177.8 | 3.0 | 76.2 | 5 | 127.0 | 12 | 304.8 |

Contact customer service for special sizes or other applications such as female threads, swivels and elbow fittings.

**In North America call 800-422-2525.
International call 513-870-3315.**

Stainless Steel Flexible Connector models listed above are for use in NAFTA Countries only, such as Canada and Mexico.

Suction System Accessories

OPW 70 Vertical Check Valves (with Shear Groove)

Materials

Body: Cast iron with black Duragard® E-coating
Disc: M-19 Viton

Features

- ◆ **Low Pressure Drop**
- ◆ **M-19 Viton Seals** – on main poppet for compatibility with methanol-blended fuels and reliable sealing
- ◆ **Protective Shear Groove** – designed to reduce the possibility of damage to buried piping in the event the dispenser is knocked over
- ◆ **Thermal Relief Valve** – to reduce pressure build-up in suction pumps. Opens between 25 & 35 PSI (1.7 & 2.4 bar)
- ◆ **Compatible with 85% Ethanol (E85) or Methanol (M85)**

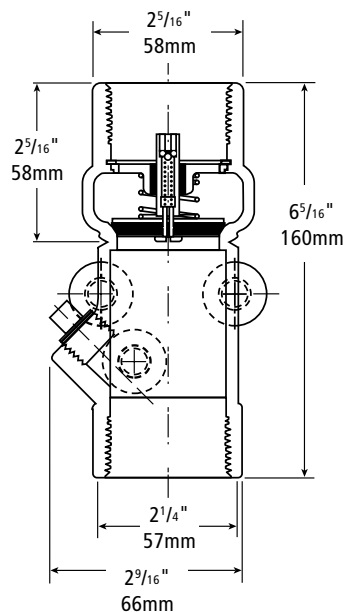
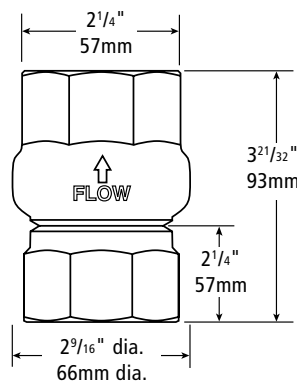


70

70S

Additional Features (70S Model)

- ◆ **Stabilizer Mounting Bosses** – three bosses in the lower portion of the valve body allow for rigid mounting to stabilizer bars. Use FlexWorks mounting plate with appropriate stabilizer bar kit
- ◆ **Built-In Air-Test Port** – allows air testing of the entire pumping system without breaking the line. Also allows line to be drained from the valve to the tank (assuming there are no other check or foot valves below the 70S)



OPW Vertical Check Valves

OPW Vertical Check Valves are installed on suction system fuel lines directly below the inlet to the pump in the dispenser island to maintain prime. The 70 Series Valves feature a built-in shear groove, which helps minimize piping damage if the dispenser is pulled over or dislodged by collision. The single-poppet provides redundant protection from losing prime and are also available without shear grooves. OPW Vertical Check Valves are recommended for use on suction lines where the pressure does not exceed 34 feet of head (approximately 15 psi [1 bar]). 70 Series valves need 1/2" of mercury to activate the poppet.

Ordering Specifications

| Model # | in. | mm | lbs. | kg |
|----------|------------|-------|------|-----|
| 70-0070 | 1 1/2" NPT | 38 mm | 1.80 | .8 |
| 70S-0075 | 1 1/2" NPT | 38 mm | 2.9 | 1.3 |

70 and 70S Vertical Check Valve Instruction Sheet
Order Number: **H11055PA**

Warning: The valve body must be rigidly anchored to a structural member within the island to ensure breakage at the shear groove in the event of severe impact. The shear groove must be at the same level or a maximum of 1/2" above or below the top of the pedestal island. Failure to provide rigid mounting or install the shear groove at the proper level may result in a failure of the valve to close or shear, resulting in an excessive loss of product and a hazardous condition.

OPW 53 Bushings

OPW 53 Bushings are general-purpose bushings for use on tank vent lines, fill lines, suction lines or other lines where it is necessary or desirable to bush up or bush down.

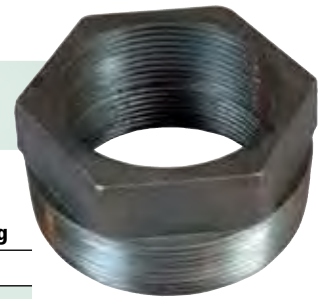
Materials

Bushing: Iron

53

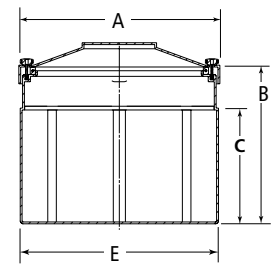
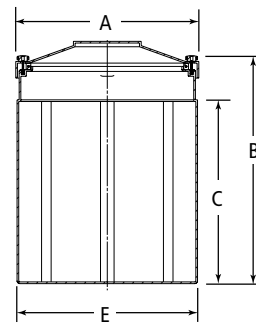
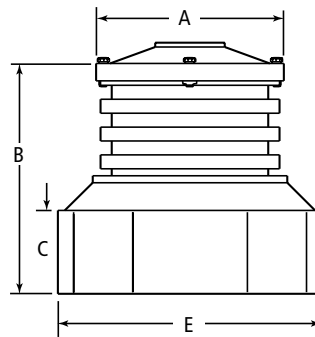
Ordering Specifications

| Model # | Threads | lbs. | kg |
|---------|------------------------------------|------|-----|
| | (MNPT x FNPT) | | |
| 53-0012 | 2" x 1 1/2" (51 x 38 mm) | .9 | .4 |
| 53-0020 | 3" x 2" (76 x 51mm) | 1.9 | .9 |
| 53-0034 | 4" x 1 1/2" (102 x 38 mm) | 2.5 | 1.1 |
| 53-0036 | 4" x 2" (102 x 51mm) | 2.5 | 1.1 |
| 53-0038 | 4" x 3" (102 x 76 mm) | 3.4 | 1.5 |
| 53-0062 | 6" MNPT x 2" FNPT (152 x 51 mm) | 4.75 | 2 |
| 53-0063 | 6" MNPT x 2" FNPT (152 x 51 mm) | 4.75 | 2 |
| PDT-411 | 4" x 1" x 1" Double Top Bushing | 12 | 5 |



Special Application Sumps & Extensions

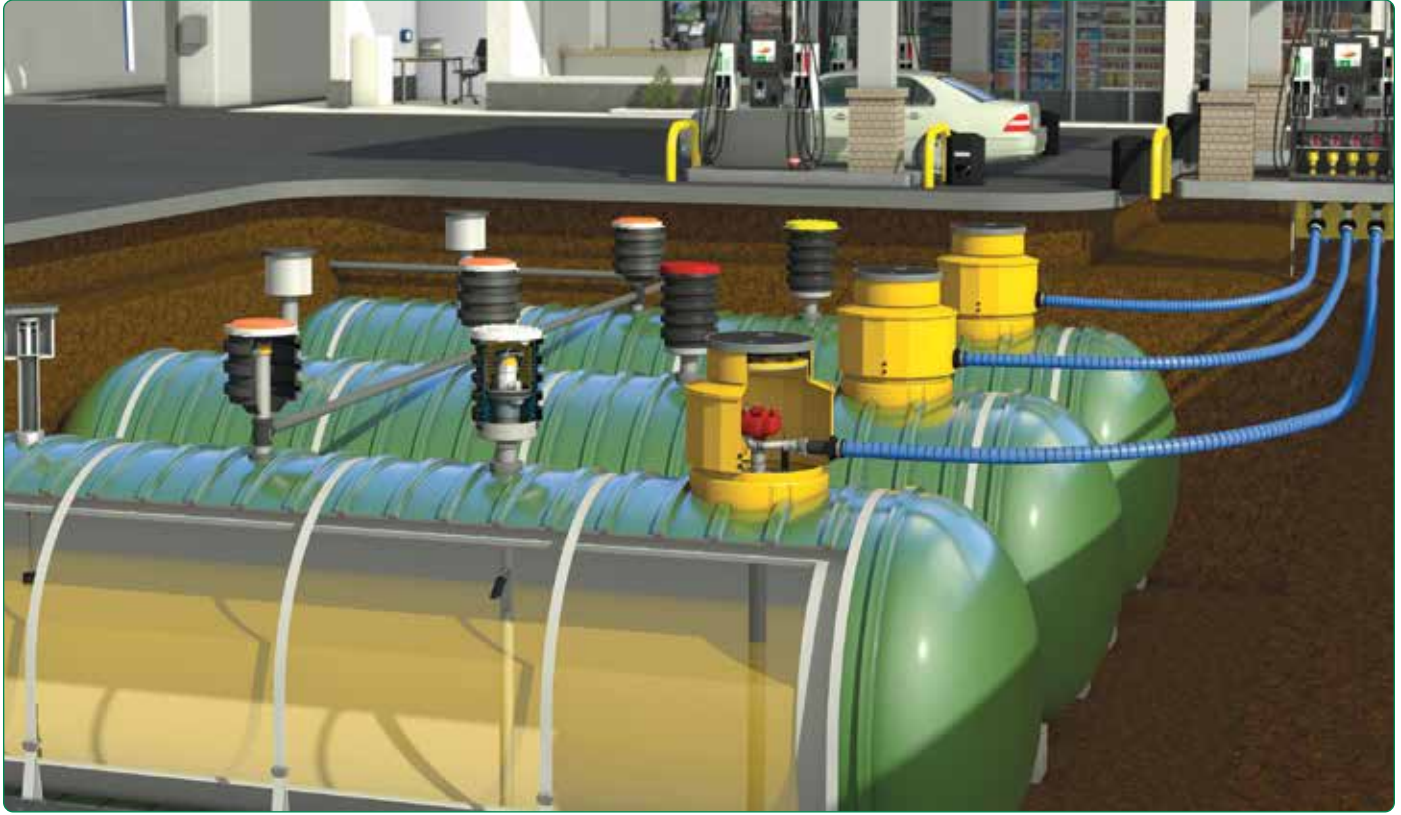
FlexWorks Special Application Sumps are installed below-grade and provide a convenient means of housing a multitude of underground piping connections and equipment, including valves, filters, meters and pumps. The PSL-3830 Line Connection Sump has large horizontal flats to accommodate multiple piping entries. The PSL-3630 Tall Mini-Sump has long vertical flats to accommodate applications with varying pipe entry heights. The PSL-2430 Mini Sump is ideal for connecting long pipe runs in a contained area.



Ordering Specifications - Polyethylene Tank Sumps (with Compression Fit Covers)

| Model # | Application | Dimensions | | | | | | | | | | Burial Depth | | | | | | Weight | |
|----------|-------------------------------------|-------------|-----|---------|-----|----------|-----|---------------|-----------|-------------|--------|--------------|------|------|------|------|------|--------|--|
| | | Manway Dia. | | A Cover | | B Height | | Dimesions CXE | | # of Panels | E Base | | max. | | min. | | lbs. | kg | |
| | | in. | mm | in. | mm | in. | mm | in. | mm | | in. | mm | in. | mm | in. | mm | | | |
| PSL-2430 | Special Application Sump, 24" x 30" | 30 | 762 | 27 | 686 | 24 | 914 | 16 x 10 | 406 x 254 | 8 | 26 | 660 | 36 | 914 | 26 | 660 | 36 | 16 | |
| PSL-3830 | In-Line Sump, 38" x 30" | 30 | 762 | 27 | 686 | 63 | 914 | 12 x 38 | 305 x 965 | 12 | 38 | 965 | 41 | 1041 | 29 | 737 | 85 | 38 | |
| PSL-3630 | Special Application Sump, 36" x 30" | 30 | 762 | 27 | 686 | 36 | 914 | 28 x 20 | 711 x 254 | 8 | 26 | 660 | 48 | 1219 | 40 | 1016 | 42 | 19 | |

Underground Storage Tank Equipment



| | |
|---|-----------|
| Phase I CARB Certified Enhanced Vapor Recovery (EVR) Product Overview | 70-71 |
| Phase I CARB Certified Enhanced Vapor Recovery (EVR) Torque Specs..... | 72 |
| Spill Containment Manholes | 73 - 88 |
| Multi-Port Spill Containment | 89 - 97 |
| Fill Pipe Connection Equipment | 98 - 109 |
| Overfill Prevention Equipment | 110 - 121 |
| Tank Venting Equipment | 122 - 125 |
| Manholes and Monitoring Well Equipment | 126 - 136 |

Listings and Certifications

CARB
California Air
Resources Board



Look for this label for Authentic
OPW EVR Approved products.



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OPW Underground Storage Tank Equipment

Tank Venting Equipment

- ◆ Pressure Vacuum – 523V and 623V Series (pgs. 122 & 124)
- ◆ Open Atmospheric – 23 Series (pg. 125)

Monitoring Well Manholes

- ◆ 104AOW (pg. 136)

Vapor Recovery Caps and Adaptors

- ◆ 1711T (pg. 106)
- ◆ 61VSA (pg. 104)
- ◆ 1611AV (pg. 105)
- ◆ 633TC (pg. 100)
- ◆ 1711LPC (pg. 97)

Monitoring Well Caps

- ◆ 62PMC (pg. 108)

Extractor Fittings

- ◆ 233 Series (pg. 117)

Ball Float Vent Valves

- ◆ 53VML (pg. 118)

Slotted Monitoring Well Pipe

- ◆ 61SPVC (pg. 108)

Tank Bottom Protectors

- ◆ 61TP (pg. 121)

Drop Tubes

- ◆ 61T (pg. 120)

Overfill Prevention Valves

- ◆ 61SO (pgs. 110 - 121)
- ◆ 71SO Testable (pgs. 112 - 110)
- ◆ 71SO (pgs. 113 - 114)

Spill Containment Manholes

1-2200 Series 1-2100-EVR, EDGE™, EDGE 1™ and 101BG Series (pgs. 73 - 88)

- ◆ Thread-On (pg. 81)
- ◆ Slip-On (pg. 85)
- ◆ Below Grade (pg. 87)
- ◆ Sealable Cover (pg. 83)
- ◆ Secondary Contained (pg. 74 - 79)
- ◆ Replaceable Direct Bury (pg. 80)
- ◆ Multiport (pg. 89 - 97)

Tight-Fill Caps and Adaptors

- ◆ 634TT (pg. 101)
- ◆ 633T (pg. 99)
- ◆ 61SALP (pg. 99)
- ◆ 634LPC (pg. 102)
- ◆ 634TE (pg. 102)

Small Diameter Manholes

- ◆ Cast Iron – 104A Series (pg. 134)
- ◆ Steel – 6110 Series (pg. 134)
- ◆ Composite (pg. 127 - 132, 135)

Monitoring Probe Caps

- ◆ 62M (pg. 107)
- ◆ 116M (pg. 107)
- ◆ 634TTM (pg. 108)

Large Diameter Manholes

- ◆ Fibrelite Composite Manholes (pgs. 127 - 128)
- ◆ Composite – 39CD & 44CD (pg. 130)
- ◆ Steel – 6110 (pg. 134)

Tank Sumps, Tank Sump Systems and Accessories

- ◆ Fiberglass Sumps and Components – (pgs. 24)
- ◆ Polyethylene – (pgs. 25)
- ◆ Transition Sumps – (pgs. 49 - 50)
- ◆ Special Application Sumps – (pg. 68)
- ◆ Mounting Flanges – (pg. 26)

Listings and Certifications

CARB
California Air Resources Board

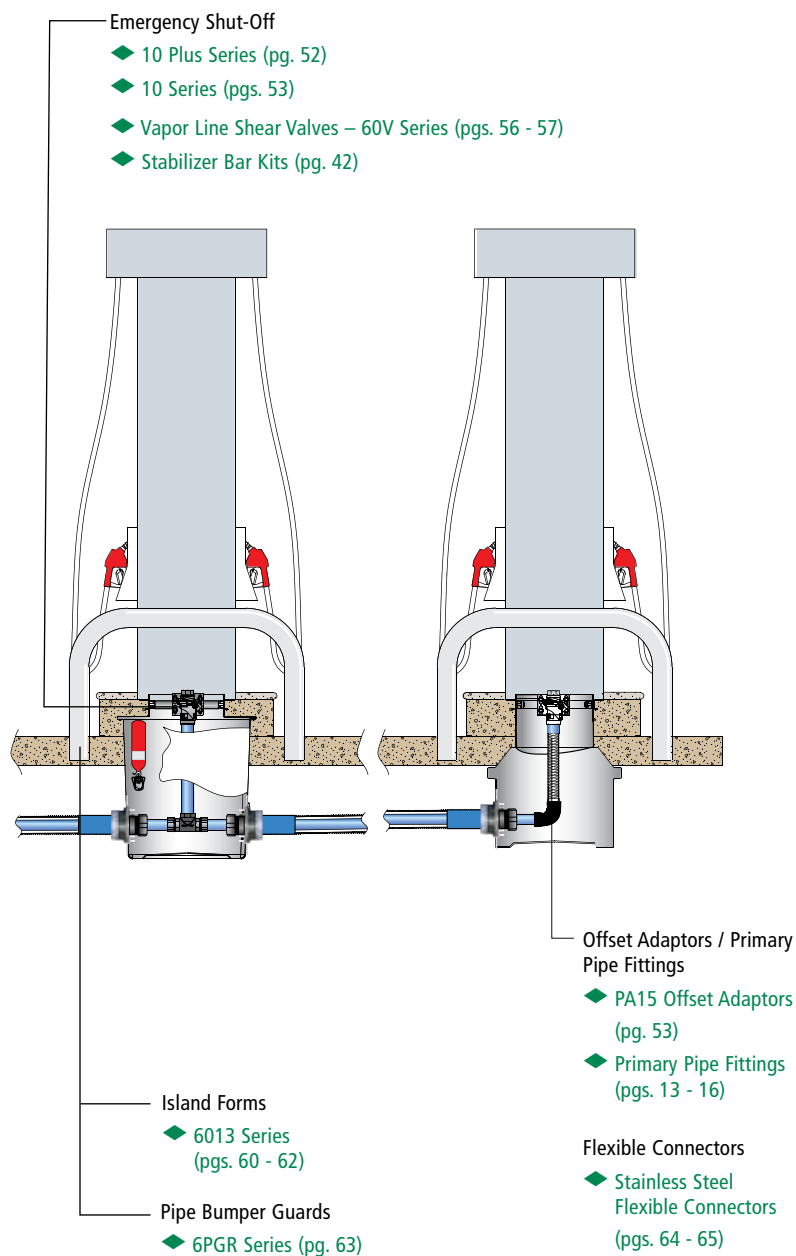


Look for this label for Authentic OPW EVR Approved products.



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OPW Underground and Aboveground Storage Tank Fuel Transfer and Containment Systems

OPW offers a wide selection of underground storage tank equipment. This equipment is designed to help protect the environment by providing fuel operations with spill containment manholes, manholes and monitoring equipment, fill pipe connection equipment, overfill prevention equipment and tank venting equipment.

OPW offers a wide variety of different spill containment products, including innovative double-wall spill containment and Phase 1 Enhanced Vapor Recovery (EVR) products, designed to prevent spilled product from entering the soil near the fill and vapor return riser connections on USTs during normal tank filling operation, or in the event of tank overfill. OPW spill containers are designed to catch spillage to help prevent soil contamination and groundwater pollution.

OPW manholes provide access from grade level to underground equipment including tank sumps, tank riser pipes, monitoring equipment, submersible pumps, valves and piping connections. OPW also offers a wide selection of tight-fill adaptors and caps, Stage I adaptors and caps and monitoring probe and well caps.

OPW overfill prevention valves are designed to help prevent the overfill of USTs during product drops. OPW offers a wide selection, including 6150 and vaportight and testable 7150 positive shut-off valves, and ball float vent valves.

NOTE: See OPW's Website at www.opwglobal.com for product instruction sheets, trouble-shooting guides, how-to-use guide and to view the Do's & Don'ts at the Gas Pump video.

OPW Phase 1 Enhanced Vapor Recovery / Torque Specifications

In March 2000, The California Air Resources Board adopted new, more stringent vapor recovery requirements for gasoline dispensing facilities. The new program, titled "Enhanced Vapor Recovery" (EVR), was developed to promote enhanced vapor recovery system reliability and to seek further reductions to meet both California and Federal Air Quality Requirements. Phase I EVR is now enforced in California.

On September 17, 2003, OPW received a second EVR certification for the Phase I Enhanced Vapor Recovery System. The new approval provides the option of using the ball float with a straight drop tube or the positive shut-off overfill prevention valve. OPW can offer the flexibility for installing an appropriate certified EVR system to meet the regulations in any jurisdiction for virtually any Phase I UST application. To review the EVR requirements visit:
www.arb.ca.gov/vapor/vapor.htm

For the purpose of reducing fugitive vapor emissions at gasoline dispensing facilities, the California Air Resources Board has formally adopted new compliance requirements and certification procedures for vapor recovery equipment. These new requirements, know as Enhanced Vapor Recovery (EVR), define the most stringent and comprehensive performance and reliability requirements for Phase I Vapor Recovery Systems. Some important new requirements for a certified EVR Phase I system include:

- ◆ **EVR System Certification Test Protocol** – all components must now be installed and tested as a complete integral Phase I system
- ◆ **EVR System Efficiency** – must now exceed 98% versus 95% previously allowed
- ◆ **EVR System Performance** – allowable leak rates for components such as spill container drain valves, overfill valves, and pressure vacuum vents have been cut by 50%
- ◆ **EVR System Reliability** – operating test period for a complete system increased from 90 days to 180 days

EVR Phase I Components Installation Torque Specifications (Oct 26, 2004)

| Component | Torque Specification Foot Pounds (Inch Pounds) |
|---|---|
| All 4" NPT pipe. See note 1 | 125 to 250 ft.lb. |
| FSA-400, FSA-400-S. See note 1 | 125 to 250 ft.lb. |
| Spill containment bucket. See note 1 | 125 to 250 ft.lb. |
| Spill bucket cover perimeter bolts/nuts | 20 to 25 ft.lb. |
| Drain valve retaining bolts/nuts | 11 to 13 ft.lb. |
| 61SO Inlet adaptor | 11 to 13 ft.lb. |
| 61JSK-4400 | 3 to 4 ft.lb. (36 to 52 in.lb.) |
| 61JSK-4410 | 3 to 5 ft.lb. (42 to 60 in.lb.) |
| 61JSK-44CB | 3 to 5 ft.lb. (42 to 60 in.lb.) |
| 61VSA Swivel Vapor Adaptor | 90 to 110 ft.lb. |
| 61SALP Low Profile Swivel Fill Adaptor | 90 to 110 ft.lb. |
| 623V Pressure Vacuum Vent base | 30 to 35 ft.lb. |
| 233V Extractor Fitting. See note 1 | 125 to 250 ft.lb. |
| 3" NPT | 125 to 300 ft.lb. |
| 2" NPT | 100 to 150 ft.lb. |
| 53VML Ball Float Vent Valve and extractor cage - 3 3/4" threads | 75 to 150 ft.lb. |

Note 1: All 4" NPT threads are to be torqued progressively lower from the tank up.

**Listings and
Certifications**



NOTE: See OPW's Website at www.opwglobal.com for product instruction sheets, trouble-shooting guides, how-to-use guide and to view the Do's & Don'ts at the Gas Pump video.

OPW Multi-Ports and Spill Containment Manholes

OPW Spill Containment Manholes are designed to prevent spilled product from entering the soil near the fill and vapor return riser connections on underground storage tanks during normal tank filling operation, or in the event of tank overflow. The spill containers catch spillage to help prevent soil contamination and groundwater pollution.

Single-Wall Spill Containment Manholes

The new OPW 1-2200 Series Single-Wall Spill Containers are advanced, rugged, easier to install and service, upgrades to a double-wall and is more reliable than current single-wall spill containers available today. Never break concrete again with our new EPA Compliant UST Solution for today, tomorrow and the future.

Double-Wall Spill Containment Manholes

The new OPW EDGE™ 3100 Series Double-Wall Spill Container is leading-edge spill containment technology. Designed to help prevent spilled product from entering the backfill in the event the primary spill container is damaged, the new OPW EDGE™ is dimensionally identical to single-wall spill buckets (from riser to grade), making single-to-double-wall upgrades quick, easy and affordable. No need to break concrete or replace riser pipes. Florida and North Carolina compliant.

Thread-On Spill Containment Manholes

OPW Thread-On Spill Containment Manholes are generally used on new tank or riser pipe installations. The spill bucket is threaded directly onto 4" NPT fill and vapor return riser pipes. An integral drain valve allows contained product to be drained into the tank. OPW Thread-On Spill Containers are available in 5, 10 and 15-gallon capacities. Thread-On Double-Wall spill containers are also available in 5-gallon capacities.

Sealable Cover Spill Containment Manholes

OPW Sealable Cover Spill Containment Manholes are designed to eliminate problems associated with water entering grade level spill containers, and are ideal for areas with poor drainage, areas subject to tropical rain and standing water, and cold regions where melting snow and road salt can enter standard spill containers. An expandable cover seal is latched down, sealing against the I.D. of the mounting ring and preventing ingress of surface water. Sealable spill containers are available in thread-on and slip-on configurations in 5 and 15-gallon capacities.

Slip-On Spill Containment Manholes

OPW Slip-On Spill Containment Manholes are used on new or existing UST riser pipes. The spill bucket slides onto 3" or 4" fill and vapor return riser pipes and is then secured in place. Slip-on spill containers provide a fast, economical way to replace uncontained manholes or fill boxes. An optional suction hand pump allows contained product to be evacuated into the tank. OPW Slip-On Spill Containers are available in 5, and 15-gallon capacities.

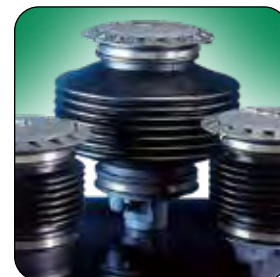
Below-Grade Spill Containment Manholes

OPW Below-Grade Spill Containment Manholes are used in new tank or riser pipe installations. The watertight spill containment chamber is installed completely below grade level. A grade level manhole cover lies flush with the driveway grade to reduce a tripping hazard and the potential for damage from snow plows and traffic. Surface water drains into the backfill between the manhole skirt and the exterior of the containment bucket. Below-grade spill containers are available in thread-on and slip-on configurations in 5 and 15-gallon capacities.

Fibrelite Multi-Port Spill Containment Manholes

OPW "Fibrelite" Multi-Port Spill Containment Manholes provide spill containment for underground storage tank (UST) fill pipes and vapor recovery risers.

Multi-Ports are installed over the top of tank sumps to preserve future access to the tank top and to facilitate containment of tank bung fittings.



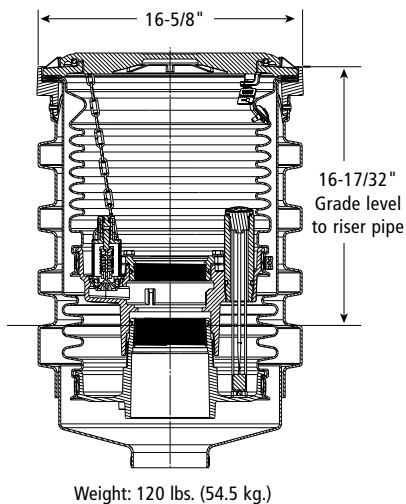
OPW EDGE™ Double-Wall Spill Containers

Designed in collaboration with contractors and end-users, the OPW EDGE™ Double-Wall Spill Container installs in the same space as single-wall buckets. The EDGE™ delivers best-in-class features that significantly improve reliability, installation, testing and ease of serviceability. The EDGE™ exceeds the performance levels of all other double-wall spill containers.

- ◆ Fully Testable
- ◆ Unbeatable installation ease
- ◆ Uses existing riser pipe
- ◆ Unparalleled serviceability
- ◆ Superior quality
- ◆ Significantly reduces installation time and labor costs



Sealable Cover Option Available



Materials

- Cover:** Cast iron
- Mounting Ring:** Duragard® coated ductile iron
- Bellows:** Polyethylene
- Base:** Cast iron E-coating
- Clamps:** Stainless steel
- Seals:** Buna-N

Features

- ◆ **Top Mounted Vacuum Test Port**
 - For quick and easy access
- ◆ **Superior Visual Gauge**
 - No messy dipsticks to contend with
 - Significantly simplifies and reduces testing time
- ◆ **Ease of Access to the Electronic Sensor for Testing**
 - Easy access for testing
 - Located to eliminate damage potential during product drops
- ◆ **Roto-Molded Primary & Secondary Buckets**
 - Thicker walls for greater durability and reliability
- ◆ **Ribbed Polyethylene Skirt Design**
 - Roto-molded for long-life durability
 - Provides rigidity for added durability
 - Provides handles on all sides for ease of installation
- ◆ **Patent-Pending Socket Design**
 - Enables the EDGE™ to install into the space of a single-wall spill container
 - Helps to align bucket on riser
- ◆ **Patent-Pending Ledge Design**
 - Provides machined sealing face for drop tube
 - Improves overall drop tube sealing integrity
 - Eliminates face seal adaptors or de-burring of the riser pipe to obtain a flat surface for the drop tube
- ◆ **Patent-Pending Removable Adaptor**
 - Allows for quick and easy access to drop tube
 - Eliminates the need for cumbersome chain wrenches
- ◆ **Bellow Seals**
 - Improves overall sealing integrity
 - Eliminates mess and curing time found in sealants
 - Reduces service time and costs
- ◆ **SC Test**
 - Vacuum Testing Lid for Edge, 2200, 21000 and Multiports



Listings and Certifications



Ordering Specifications

The Edge™ Double-Wall Models - Fill Ports with Drain Valves

| Part # | Gal. | liter | Cover | Gauge / Sensor | lbs. | kg. |
|------------|------|-------|-----------|---|------|-----|
| 1C-3112D | 5 | 19 | Cast Iron | Float Gauge | 127 | 58 |
| 1C-3122D | 5 | 19 | Cast Iron | Port Only (sensor not included) | 127 | 58 |
| 1C-3132D | 5 | 19 | Cast Iron | Electronic Sensor; 2 Stage, Normally Closed | 127 | 58 |
| 1C-3142D | 5 | 19 | Cast Iron | Electronic Sensor; Tri-State | 127 | 58 |
| 1C-31512D | 15 | 57 | Cast Iron | Float Gauge | 185 | 84 |
| 1C-31532D | 15 | 57 | Cast Iron | Electronic Sensor; 2 Stage, Normally Closed | 185 | 84 |
| 1C-31542D | 15 | 57 | Cast Iron | Electronic Sensor; Tri-State | 185 | 84 |
| 1SC-3112D | 5 | 19 | Sealable | Float Gauge | 127 | 58 |
| 1SC-3122D | 5 | 19 | Sealable | Port Only (sensor not included) | 127 | 58 |
| 1SC-3132D | 5 | 19 | Sealable | Electronic Sensor; 2 Stage, Normally Closed | 127 | 58 |
| 1SC-3142D | 5 | 19 | Sealable | Electronic Sensor; Tri-State | 127 | 58 |
| 1SC-31512D | 15 | 57 | Sealable | Float Gauge | 185 | 84 |
| 1SC-31532D | 15 | 57 | Sealable | Electronic Sensor; 2 Stage, Normally Closed | 185 | 84 |
| 1SC-31542D | 15 | 57 | Sealable | Electronic Sensor; Tri-State | 185 | 84 |

Installation Tools & Testing Equipment

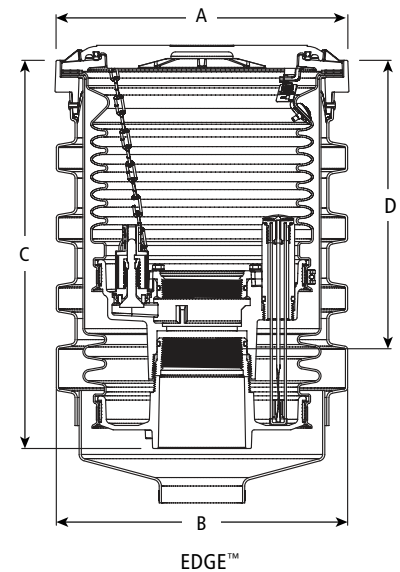
| | |
|-------------|--|
| 1-3100-TOOL | Installation Tool for the EDGE™ DW Spill Container |
| DW-VAC-TEST | Double-Wall Vacuum Tester |
| SC-VAC-TEST | Vacuum Testing Lid for OPW Spil Buckets |

The Edge™ Double-Wall Models - Vapor Ports with Plug

| Part # | Gal. | liter | Cover | Gauge | lbs. | kg. |
|------------|------|-------|-----------|---|------|-----|
| 1C-3112P | 5 | 19 | Cast Iron | Float Gauge | 127 | 58 |
| 1C-3122P | 5 | 19 | Cast Iron | Port Only (sensor not included) | 127 | 58 |
| 1C-3132P | 5 | 19 | Cast Iron | Electronic Sensor; 2 Stage, Normally Closed | 127 | 58 |
| 1C-3142P | 5 | 19 | Cast Iron | Electronic Sensor; 2 Stage, Tri-State | 127 | 58 |
| 1C-31512P | 15 | 57 | Cast Iron | Float Gauge | 185 | 84 |
| 1C-31532P | 15 | 57 | Cast Iron | Electronic Sensor; 2 Stage, Normally Closed | 185 | 84 |
| 1C-31542P | 15 | 57 | Cast Iron | Electronic Sensor; Tri-State | 185 | 84 |
| 1SC-3112P | 5 | 19 | Sealable | Float Gauge | 127 | 58 |
| 1SC-3122P | 5 | 19 | Sealable | Port Only (sensor not included) | 127 | 58 |
| 1SC-3132P | 5 | 19 | Sealable | Electronic Sensor; 2 Stage, Normally Closed | 127 | 58 |
| 1SC-3142P | 5 | 19 | Sealable | Electronic Sensor; Tri-State | 127 | 58 |
| 1SC-31512P | 15 | 57 | Sealable | Float Gauge | 185 | 84 |
| 1SC-31532P | 15 | 57 | Sealable | Electronic Sensor; 2 Stage, Normally Closed | 185 | 84 |
| 1SC-31542P | 15 | 57 | Sealable | Electronic Sensor; Tri-State | 185 | 84 |

Add the following to part number for colored powder coated covers and Rings. Example 1C-3XXXD-W

| | | | | | |
|--------------------------------|----|---------------------------------|----|---------------------------------|-----|
| <input type="checkbox"/> White | -W | <input type="checkbox"/> Orange | -O | <input type="checkbox"/> Yellow | -Y |
| <input type="checkbox"/> Red | -R | <input type="checkbox"/> Blue | -B | <input type="checkbox"/> Bronze | -BZ |



Dimensions 5-gallon EDGE™

| | in. | cm |
|---|----------------------------------|----|
| A | 16 ⁵ / ₈ | 42 |
| B | 16 ¹⁹ / ₃₂ | 42 |
| C | 22 ¹ / ₈ | 56 |
| D | 16 ⁷ / ₁₆ | 42 |

Dimensions 15-gallon EDGE™

| | in. | cm |
|---|--------------------------------|----|
| A | 24 ⁷ / ₈ | 63 |
| B | 24 ¹ / ₂ | 62 |
| C | 24 ¹ / ₂ | 62 |
| D | 18 | 46 |

Replacement Parts/Accessories

| Part # | Description | Part # | Description | Part # | Description |
|-------------------------|--|--------------|---|------------|--|
| 1-21CC | 5 Gallon Cast Iron RT cover | 211465 | Visigauge S/A | H12267 | Wood Block Leveling Kit |
| 1-21AC | 5 Gallon Aluminum RT Cover | 206017 | Sensor Adaptor S/A (Primary) | 202136-KIT | 5 Gallon Primary Bucket with Plug |
| H12229M | 5 Gallon Cover Seal for 1-21AC and 1-21CC | 211064 | Visigauge | 205987-KIT | 15 Gallon Primary Bucket with Drain Valve |
| 201530 | 5 Gallon Snow-Plow Ring | 201972 | O-Ring, Visigauge Adaptor | 206215-KIT | 15 Gallon Primary Bucket with Plug |
| 201689 | 5 Gallon Seal for Snow-Plow Ring | 202013 | O-Ring, Visigauge | 202137-KIT | 5 Gallon Secondary Replacement Kit for Float Gauge |
| 203340 | 15 Gallon Rain Tight Rings | 1DK-2100-EVR | Drain Valve Sub Assembly | 206010-KIT | 5 Gallon Secondary Replacement Kit for Sensor Buckets |
| H12229M | 15 Gallon RT Cover Seal | 201739 | Nipple Adaptor | 206011-KIT | 5 Gallon Secondary Replacement Kit for Electronic Sensor |
| SC-XXXX (XXX =Color) | 5 or 15 Gallon Sealable Covers Powder Coated | C05446M | 15 Gallon Main cover Seal | 205988-KIT | 15 Gallon Secondary Bucket Assembly |
| 203035 | 5 Gallon Sealable Cover Replacement Snow-Plow Ring | 201686 | S/A Secondary Gravel Guard | 203269 | Replacement 2 Stage, Normally Closed Sensor and Sealed Base Plug; Used in 1C-xx32 series Edge |
| 1DP-2100 | Plug Kit | 201686 | S/A Secondary Gravel Guard | 210490 | Replacement Tri-State Sensor and Sealed Base Plug, Used in 1C-xx42x Series Edge |
| SCR Series | 15 Gallon Sealable Cover Replacement Snow-Plow Ring | 202135-KIT | 5 Gallon Primary Bucket with Drain Valve | 211079 | Sensor Only Standard |
| | | | | 210488 | Sensor Only |
| | | | | 201692 | O-Ring for 201739 |

Float Gauge & Sensor Adaptor not included with replacement buckets

EDGE™ Replacement Cartridge Kit

| Original Edge Model | Original Product Description | Primary Containment Replacement Kit | Secondary Containment Replacement Kit | Primary and Secondary Containment Replacement Kit / EDGE 1 Upgrade Kits |
|------------------------|--|--|--|--|
| 1C-3112D / 1SC-3112D | DW EDGE: Drain Valve + Gauge | 202135-KIT | 202137-KIT | 202135-KIT + 202137-KIT + 211465 |
| 1C-3112P / 1SC-3112P | DW EDGE: Plug and Gauge | 202136-KIT | 202137-KIT | 202136-KIT + 202137-KIT + 211465 |
| 1C-3122D / 1SC-3122D | DW EDGE: Drain Valve and Sensor Access Port | 202135-KIT | 206010-KIT | 202135-KIT + 206010-KIT + 206017 |
| 1C-3122P / 1SC-3122P | DW EDGE: Plug and Sensor Access Port | 202136-KIT | 206010-KIT | 202136-KIT + 206010-KIT + 206017 |
| 1C-3132D / 1SC-3132D | DW EDGE: Drain Valve & 2 Stage Norm. Closed Sensor | 202135-KIT | 206011-KIT | 202135-KIT + 206011-KIT + 206017 |
| 1C-3132P / 1SC-3132P | DW EDGE: Plug & 2 Stage Norm. Closed Sensor | 202136-KIT | 206011-KIT | 202136-KIT + 206011-KIT + 206017 |
| 1C-3101D / 1SC-3101D | EDGE 1: Drain Valve | 203193-KIT | | |
| 1C-3101P / 1SC-3101P | EDGE 1: Plug | 203194-KIT | | |
| 1C-31512D / 1SC-31512D | DW Edge: 15 Gallon Drain Valve + Gauge | 205987-KIT | 205988-KIT | 205987-KIT + 205988-KIT + 211465 |
| 1C-31512P / 1SC-31512P | DW Edge: 15 Gallon Plug + Gauge | 206215-KIT | 205988-KIT | 206215-KIT + 205988-KIT + 211465 |
| 1C-3142D / 1SC-3142D | DW Edge: Drain and Tri-State Sensor | 202135-KIT | 210493-KIT | 202135-KIT + 210493-KIT + 206017 |
| 1C-3142P / 1SC-3142P | DW Edge: Plug and Tri-State Sensor | 202136-KIT | 210493-KIT | 202136-KIT + 210493-KIT + 206017 |

Replacement Parts/Accessories

| Part # | Description |
|---------|---|
| SC-Test | Testable Sealable cover for SC Edge or 1-2200 buckets |



SC Tester

4" Threaded Nipples for Mating Spill Bucket to Adaptor

| Part # | Description |
|---------|---------------------------|
| TC-400 | 4" Torque Cap |
| H15144M | 4" NPT Nipple, 4" Length |
| H12806M | 4" NPT Nipple, 5" Length |
| VPN4X7 | 4" NPT Nipple, 7" Length |
| H15271M | 4" NPT Nipple, 8" Length |
| H15268M | 4" NPT Nipple, 10" Length |



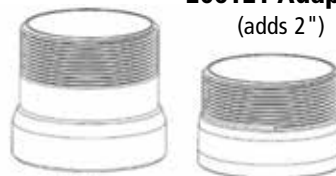
Threaded Nipple

4" Riser Extenders

| Part # | Description |
|--------|--|
| 206121 | 4" NPT Riser Pipe Extender, adds 2" to Height |
| 206122 | 4" NPT Riser Pipe Extender, adds 3.25" to Height |

206122 Adapter
(adds 3.25")

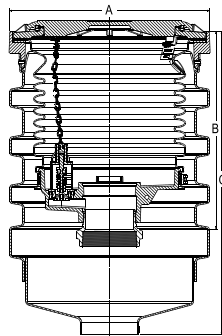
206121 Adapter
(adds 2")



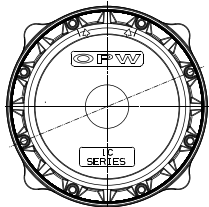
OPW EDGE 1™ Single-Wall Spill Container

Introducing an advanced single-wall spill container – the new EDGE 1™ by OPW. The new EDGE 1™ is rugged, easier to install and service, upgrades to a double-wall and is more reliable than current single-wall spill containers available today. Leading-EDGE design features and superior materials of construction combine with expert spill containment engineering excellence to deliver more benefits than any other single-wall spill container, making the EDGE 1™ number one in:

- ◆ Installation & upgradeability ease
- ◆ Serviceability ease
- ◆ Durability & long-life reliability



A = 16 5/8"
B = 16 15/32"
C = 25 1/4"

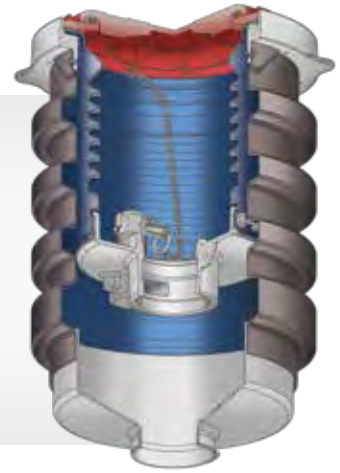


Replacement Parts/Accessories

| Part # | Description |
|--------------|---------------------------------------|
| 201689 | Mounting Ring Seal |
| 201530 | Snow-Plow Ring |
| 201692 | O-Ring, Nipple Adaptor |
| 1-21CC | Cover |
| 203035 | Sealable Cover Ring |
| H12229M | Cover Seal |
| SC-xxxx | (Xxxx=Color) Sealable Cover |
| 1DK-2100-EVR | Drain Valve Sub Assembly |
| 203193-KIT | Replacement 5-Gallon with Drain Valve |
| 203194-KIT | Replacement 5-Gallon with Drain Plug |
| IP-2105 | Hand Pump |

Materials

Cover: Cast iron
Mounting Ring: Duragard® coated ductile iron
Bellows: Polyethylene
Base: Cast iron E-coating
Clamps: Stainless steel
Seals: Buna-N



Features

- ◆ **Upgradeable to a double-wall bucket without breaking concrete**
- ◆ **Quick, easy replacement of spill bucket and mounting ring without breaking concrete** – significantly reduces labor time and cost
- ◆ **High-quality materials of construction**
 - Roto-molded technology - provides for thicker, more robust bellows
 - Heavy-duty ductile iron mounting ring - provides superior long-term reliability and damage protection against traffic drive-over and snow plows
- The integral pull-to-open drain valve uses non-corrosive and stainless-steel materials, unlike our competitors, which have corrosive materials in their design (a drain plug version is also available)
- ◆ **Thread-on bucket design** - ensures leak-free integrity, especially in the event of ground movement
- ◆ **Corrosion-resistant polyethylene skirt** – increased rigidity and durability, superior reliability over corrosive metallic skirts
- ◆ **Unique concrete anchoring ring** – wide-lip and four (4) convenient anchoring ears provide for better

Ordering Specifications

| Model # | Description | Weight lbs. kg | |
|----------|---|-------------------|----|
| 1C-3101D | The EDGE 1™ SW Spill Container, 5 Gallon capacity, with Cast Iron Cover and Drain Valve | 117 | 53 |
| 1C-3101P | The EDGE 1™ SW Spill Container, 5 Gallon capacity, with Cast Iron Cover and Drain Plug | 117 | 53 |

NOTE: Any model can be purchased with a sealable cover option by using part number 1SC-XXXXD or 1SC-XXXXP.

NOTE: FSA-400-S must be installed with the EDGE 1™ to be upgraded to a double-wall spill bucket.

Add the following to part number for colored powder coated covers and rings. Example 1C-3XXXD-W

| | | | | | |
|--------------------------------|----|---------------------------------|----|---------------------------------|-----|
| <input type="checkbox"/> White | -W | <input type="checkbox"/> Orange | -O | <input type="checkbox"/> Yellow | -Y |
| <input type="checkbox"/> Red | -R | <input type="checkbox"/> Blue | -B | <input type="checkbox"/> Bronze | -BZ |

Installation Tool

| Model # | Description |
|-----------|---|
| 61SA-TOOL | Wrench for Installation of the EDGE 1™ SW Spill Container |

Listings and Certifications

CARB

California Air Resources Board



Materials

Cover: Black Epoxy Coated Cast Iron

Mounting ring: Duragard® coated ductile iron

Bellows: Polyethylene

Base: Cast iron E-coating

Seals: Buna-N



Features

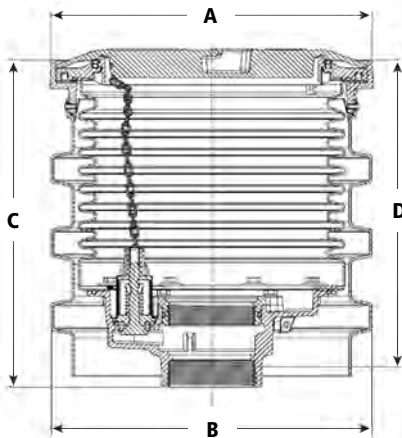
- ◆ **Designed for proposed 2014 EPA Regulations and beyond**
- ◆ **Prepares you for future compliance**
- ◆ Removable Bellows and Ring
- ◆ **Unique Flange Adaptor Feature-**
Allows quick and easy removal of overfill valve without torquing base
- ◆ Built-In Face Seal Adaptor
- ◆ Innovative Snow-plow Ring-less, Liquid-Tight Cover with Integrated Lift Handle design
- ◆ Easy access for overfill prevention valve testing and inspection
- ◆ Replaceable bucket without breaking concrete
- ◆ **ULC Approved**

OPW 1-2200 Series Replaceable Single-Wall Spill Container

Introducing an affordable, all-accessible, all-replaceable and all-maintainable spill container from OPW. Never break concrete again with our new EPA Compliant UST Solution for today, tomorrow and the future.

Ordering Specifications

| Model # | Description |
|-------------|---|
| 1C-2200D | Single-Wall, Field Replaceable Spill Container with Drain Valve |
| 1C-2200P | Single Wall, Field Replaceable Spill Container with Drain Plug |
| 1-3100-TOOL | Installation Tool, Used for Edge and 1-2200 Spill Containers |



Dimensions

| | in. | cm | lbs. | kg |
|---|----------------------------------|----|------|------|
| A | 16 ⁵ / ₈ | 42 | 77 | 34.9 |
| B | 16 ¹⁹ / ₃₂ | 42 | 77 | 34.9 |
| C | 17 ² / ₃ | 45 | 77 | 34.9 |
| D | 16 ⁷ / ₁₆ | 42 | 77 | 34.9 |

Listings and Certifications



Replace Bellows in 3 Easy Steps



Remove Upper Bolts and Ring



Remove Lower Bolts and Ring and Remove Bellows

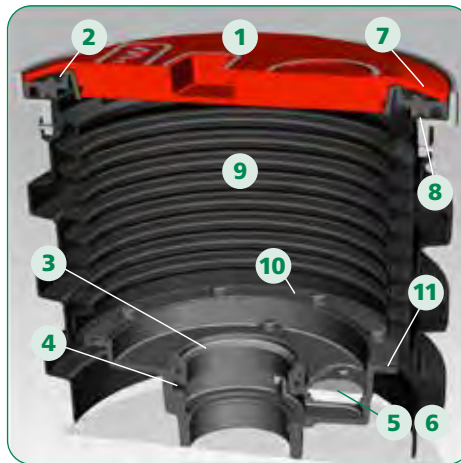
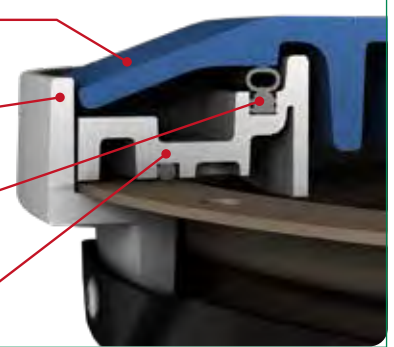


Replace Bellows, Reinstall Upper and Lower Rings

No Need to Remove Base in order to Replace Bellows

Liquid-Tight Cover

- Special Cover and Ring Design
Seals Out Water and Debris
- Eliminates Need for Snow Plow Ring
Flush with Finish Grade
- Proven "Bubble Seal"
- Removable Compression Ring

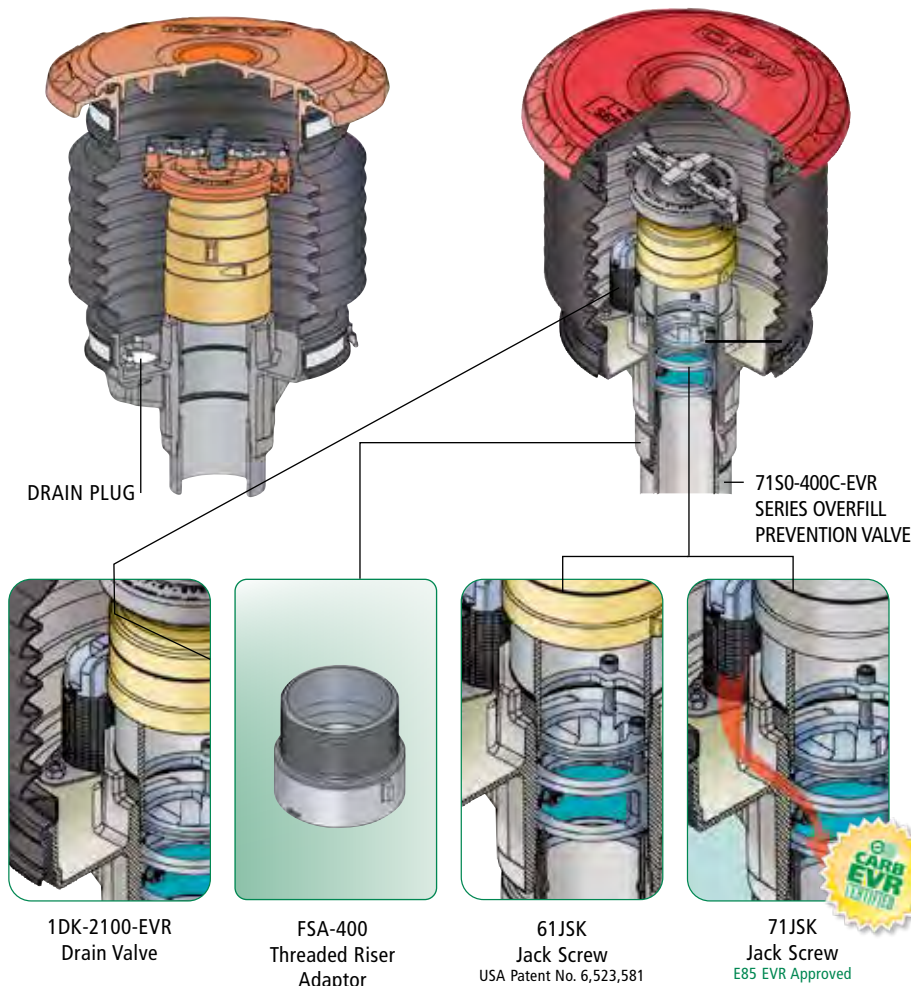


1-2200 Series Replacement Parts

| | Part/Kit Number | Description |
|----|-----------------|--|
| 1 | 207235 | Cover |
| 2 | H12229M | Cover Seal |
| 3 | 201739 | Flange Adaptor |
| 4 | 201692 | Flange Adaptor O-ring |
| 5 | 1DK-2100-EVR | Drain Valve Sub Assembly |
| 6 | 1DP-2100 | Drain Plug Kit |
| 7 | 208951 | Upper Ring Replacement Kit (Includes; O-ring and Hardware) |
| 8 | 207243 | Upper Ring O-ring |
| 9 | 208952 | Bellows Replacement Kit (Includes; O-rings, Split Rings, and Hardware) |
| 10 | 207212 | Lower Split Ring, Each (2 Required per Spill Container) |
| 11 | 207211 | Lower Bellows O-ring |
| | 208197 | Installation Instructions |

1-2100-PEVR Series Vapor Recovery Spill Container

1-2100-DEVR Series Product Fill Spill Container



OPW 1-2100-EVR Series Direct Bury Spill Containment For CARB/EVR

The OPW Thread-On 1-2100-EVR Series Spill Containers are certified for installation on OPW Phase I EVR Systems. All Fill Port Spill Containers feature an enhanced 1DK-2100-EVR vapor tight drain valve (DEVR Models). The Vapor Return Spill Containers (PEVR Models) feature a permanent plug in the drain port as per EVR requirements. The 1-2100-EVR Series Thread-On Spill Containers are available in Composite or Cast Iron bases with either 5 or 15-gallon buckets.

The FSA-400 Threaded Riser Face Seal Adaptor is installed on the fill pipe below the spill container to provide a true sealing surface for the drop tube flange on the 61SO and 71SO overfill prevention valve. The 61SO and 71SO series valves are installed in the base of the OPW EVR spill container with the patent-pending 61JSK Jack Screw device. This configuration allows liquid in the spill container to be drained directly into the drop tube thereby isolating the drain valve from the tank ullage, eliminating a notorious leak point in previous systems.

OPW Threaded Riser Adaptor (Face Seal Adaptor)

An OPW FSA-400 Threaded Riser Face Seal Adaptor provides a flat, true sealing surface on threaded pipes where a gasket seal exists per EVR requirements. The FSA-400 is installed on the fill pipe riser below the spill container to provide a true sealing surface for the drop tube flange on the overfill prevention valves. The FSA-400 is also required on tank gauging risers and optional on vapor risers and rotatable adaptors.

61JSK, 71JSK (Jack Screw Device) Ordering Specifications

| Product # | Description |
|------------|--|
| FSA-400 | 4" Face Seal Adaptor |
| FSA-400-S | 4" Short Face Seal Adaptor for Cast Iron Base Only |
| 61JSK-4410 | Jack Screw Kit for Composite Base Spill Bucket |
| 61JSK-44CB | Jack Screw Kit for Cast Iron Base Spill Bucket |
| 71JSK-4RMT | Remote Fueling Jack Screw Kit E85 EVR Approved |
| 71JSK-44MA | Jack Screw Kit for Cast Iron Base Spill Buckets E85 EVR Approved |

OPW 1-2100 Series Thread-On Spill Containers

OPW Spill Containment Manholes are designed to prevent spilled product from entering the soil near the fill and vapor return riser connections on underground storage tanks during normal tank filling operation, or in the event of tank overflow. The spill containers catch spillage to help prevent soil contamination and groundwater pollution. OPW Thread-On Spill Containment Manholes are generally used on new tank or riser pipe installations.

Materials

Cover: Cast aluminum or cast iron
Mounting Ring: Cast iron E-coating
Bellows: Polyethylene
Base: Cast iron E-coating or Duratuff II
Clamps: Stainless steel
Seals: Nitrile

1-2115,
15-Gallon



Features

- ◆ **Easy Installation** – reduces job-site time and installation costs. OPW Thread-On Spill Containers screw directly onto 4" NPT riser. No external connections to make; adjust the final grade height and support the unit with backfill
- ◆ **Integral Pull-to-Open Drain Valve** – allows high-speed drainage of excess product into the tank. Designed with a convenient self-cleaning seal and removable screen for easier component cleaning
- ◆ **Capacity** – available in a true 5-gallon capacity as well as 15-gallon capacity
- ◆ **Rain-Shedding Cover** – available in either cast aluminum or cast iron, this unique design incorporates a seal in the underside of the cover. The seal seats between two dams on the mounting ring to prevent surface water from entering the spill container
- ◆ **Fuel Compatibility** – designed to accommodate the fuels of the future, including methanol, ethanol and fuels with MTBE additives
- ◆ **Product Identification Tags** – available for both the cover and bucket to positively identify the product contained in the UST with standard API symbols (See product I.D. tag specification page for more information: page 97.)
- ◆ **Heavy-Duty Mounting Ring** – the angled ramp design offers superior protection against snow plow and traffic damage, and provides for secure concrete anchoring
- ◆ **Corrugated Bellows** – can be adjusted +/- 1 inch for desired grade level
- ◆ **Duratuff® II or Cast Iron Base** – composite Duratuff® II material is lightweight, durable, and conductive. A rugged, optional, cast-iron base is also available
- ◆ **Highway 20 Rated (H20)** – all OPW spill containers and manholes exceed the requirements of the Highway 20 rating

Listings and Certifications



Look for this label for authentic OPW EVR Approved products.

DEVR Models – Fill Port with Drain Valve

Duratuff® II Base with Drain Valve Models

| Model # | Gal. | Liter | Cover | lbs. | kg |
|--------------|------|-------|-----------|------|----|
| 1-2100-DEVR | 5 | 19 | Aluminum | 40 | 18 |
| 1C-2100-DEVR | 5 | 19 | Cast Iron | 53 | 24 |
| 1-2115-DEVR | 15 | 57 | Aluminum | 47 | 21 |
| 1C-2115-DEVR | 15 | 57 | Cast Iron | 60 | 27 |

Cast Iron Base with Drain Valve Models

| Model # | Gal. | Liter | Cover | lbs. | kg |
|---------------|------|-------|-----------|------|----|
| 1-2100C-DEVR | 5 | 19 | Aluminum | 40 | 18 |
| 1C-2100C-DEVR | 5 | 19 | Cast Iron | 53 | 24 |
| 1-2115C-DEVR | 15 | 57 | Aluminum | 47 | 21 |
| 1C-2115C-DEVR | 15 | 57 | Cast Iron | 60 | 27 |

PEVR Models – Vapor Port with Plug

Duratuff® II Base with Plug Models

| Model # | Gal. | Liter | Cover | lbs. | kg |
|--------------|------|-------|-----------|------|----|
| 1-2100-PEVR | 5 | 19 | Aluminum | 40 | 18 |
| 1C-2100-PEVR | 5 | 19 | Cast Iron | 53 | 24 |

Cast Iron Base with Plug Models

| Model # | Gal. | Liter | Cover | lbs. | kg |
|---------------|------|-------|-----------|------|----|
| 1-2100C-PEVR | 5 | 19 | Aluminum | 40 | 18 |
| 1C-2100C-PEVR | 5 | 19 | Cast Iron | 53 | 24 |



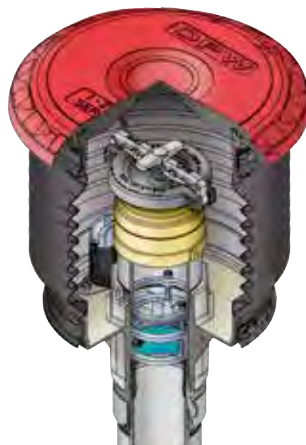
4" Threaded Nipples for Mating Spill Bucket to Adaptor

| Part # | Description |
|---------|---------------------------|
| TC-400 | 4" Torque Cap |
| H15144M | 4" NPT Nipple, 4" Length |
| H12806M | 4" NPT Nipple, 5" Length |
| VPN4X7 | 4" NPT Nipple, 7" Length |
| H15271M | 4" NPT Nipple, 8" Length |
| H15268M | 4" NPT Nipple, 10" Length |

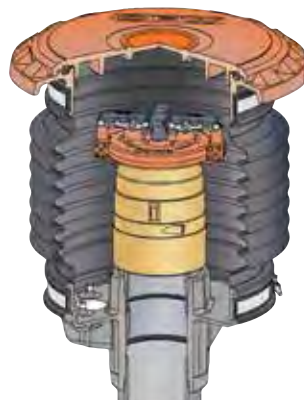
Replacement Parts

| Part # | Description |
|--------------|---------------------------------------|
| 1DK-2100-EVR | Drain Valve Kit |
| 1-21AC | Aluminum Cover w/ Seal |
| 1-21CC | Cast Iron Cover w/ Seal |
| H12229M | Cover Seal |
| 1PPK-2100 | Hand Pump & Plug Kit for 1-2100 |
| 1DP-2100 | Replacement Drain Plug Kit for 1-2100 |

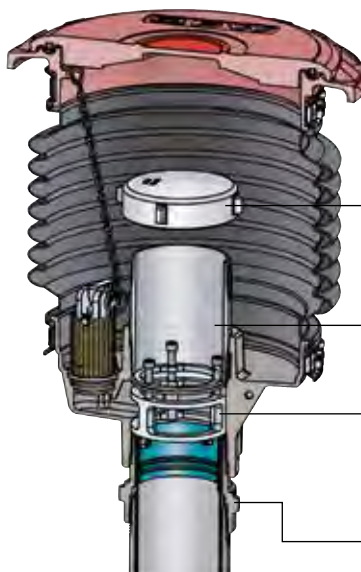
The following products are in compliance with California Water Resources Control Board (W.R.C.B.) for coating of buried metal components, such as stainless steel clamps or entire Spill Containment Bucket bottoms.



**1-2100-DEVR Series
Product Fill Spill Container**



**1-2100-PEVR Series
Vapor Recovery Spill Container**



TC-400 Torque Cap

Provides an easy means of threading a 4" NPT nipple into a spill container. The OPW TC-400 coupled with the OPW 61SA-TOOL can provide the necessary torque requirements for installing adaptor nipples for spill containers. The TC-400 can easily be removed without disturbing the installed threaded nipple. The TC-400 also eliminates the need for a strap or chain wrench.

4" Threaded Pipe Nipple

OPW pipe nipples are CNC machined, providing a smooth sealing surface where a gasket seal exists. Available in various lengths to custom fit the necessary height requirements for Fill and Vapor Adaptors.

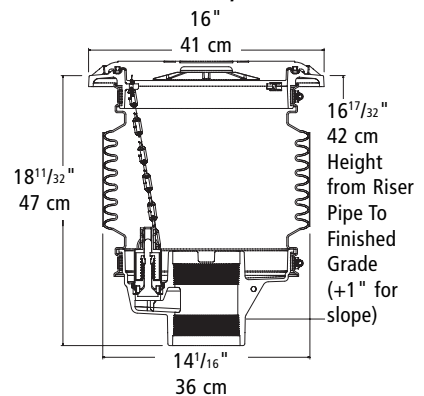
61JSK Jack Screw Device

See page 80 for detailed information.

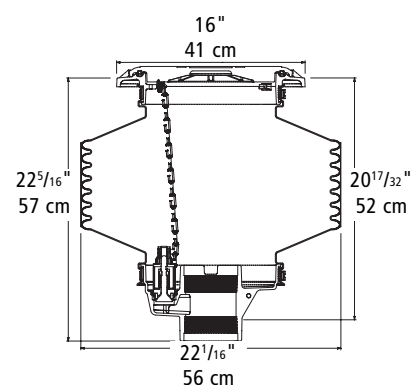
FSA-400 Face Seal Adaptor

See page 80 for detailed information.

OPW 1-2100, 5-Gallon



OPW 1-2115, 15-Gallon



*Subtract 2" from height dimension for Cast Iron Base Models.

NOTE: 20^{17/32}" dimension is height from riser pipe to finish grade (+1" for slope)

| Part # | Description |
|---|-----------------------------|
| SL-1100 | Urethane Sealant (10.3 oz.) |
| W.R.C.B. approved CCR Title 23, Div. 16, Sec. 1631 & 2636 | |

OPW 1SC-2100-EVR Series Sealable Cover Spill Containers

OPW Spill Containment Manholes are designed to prevent spilled product from entering the soil near the fill and vapor return riser connections on underground storage tanks during normal tank filling operation, or in the event of tank overflow. The spill containers catch spillage to help prevent soil contamination and groundwater pollution. The OPW 1SC-2100-EVR Series Sealable Cover Spill Containers are designed to eliminate the problems associated with water entering grade level spill containers. The operation of the cover is similar to that of a "plumbers plug." When the lever is latched down, the plates are drawn together, expanding the seal against the machined mounting ring wall. The 1SC-2100-EVR spill containers are ideal for areas with a high water table, areas subject to tropical rain and standing water, and cold regions where melting snow and road salt can enter standard spill containers.

Materials

Cover: Cast aluminum
Cover Seal: Low swell nitrile
Lever: Bronze
Mounting Ring: Teflon® plasma-coated cast iron
Bellows: Polyethylene
Base: Duratuff® II or cast iron E-coating
Clamps: Stainless steel
Seals: Low swell nitrile



Lid Features

- ◆ **Simple "Plumbers Plug" Operation** – cover seal is expanded against mounting ring wall
- ◆ **Vertical Sealing Surface** – prevents gravel and debris from damaging or interfering with the cover seal
- ◆ **Machined Sealing Surface** – ensures watertight seal. Teflon coated stainless steel
- ◆ **Field Replaceable Seal** – designed for all-weather performance
- ◆ **Clear Anodized Aluminum Top Plate** – deters cover theft
- ◆ **Potted Hinge Mechanism** – prevents ice and debris from hindering lever operation

Additional Features

- ◆ **Product Identification Tags** – available for both the spill container cover and bucket to positively identify the product contained in the UST with standard API symbols (See product I.D. tag specification page for more information: page 97.)
- ◆ **Capacities** – 5 and 15-gallon
- ◆ **Fuel Compatibility** – designed to accommodate all fuels, including methanol, ethanol and MTBE
- ◆ **Highway 20 Rated (H20)** – all OPW spill containers and manholes exceed the requirements of the Highway 20 rating

Listings and Certifications



Look for this label for authentic OPW EVR Approved products.

Ordering Specifications

Plug or Drain Valve Models

| Model | Gal. | Liter | Base | Drain Valve or Drain Plug | Cover | lbs. | kg |
|----------------|------|-------|-----------|---------------------------|----------|------|----|
| 1SC-2100-DEVR | 5 | 19 | Composite | Drain Valve | Aluminum | 47 | 21 |
| 1SC-2115-DEVR | 15 | 57 | Composite | Drain Valve | Aluminum | 47 | 21 |
| 1SC-2100-PEVR | 5 | 19 | Composite | Drain Plug | Aluminum | 47 | 21 |
| 1SC-2115-PEVR | 15 | 57 | Composite | Drain Plug | Aluminum | 47 | 21 |
| 1SC-2100C-DEVR | 5 | 19 | Cast Iron | Drain Valve | Aluminum | 53 | 24 |
| 1SC-2115C-DEVR | 15 | 57 | Cast Iron | Drain Valve | Aluminum | 53 | 24 |
| 1SC-2100C-PEVR | 5 | 19 | Cast Iron | Drain Plug | Aluminum | 53 | 24 |
| 1SC-2115C-PEVR | 15 | 57 | Cast Iron | Drain Plug | Aluminum | 53 | 24 |

Dimensions

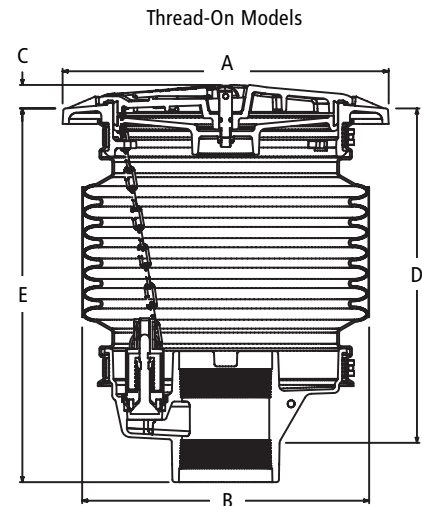
Slip-On Models (see drawing on right)

| | 1SC-2105 | | 1SC-2155 | |
|----|---------------------------------|----|---------------------------------|----|
| | in. | cm | in. | cm |
| A | 16 | 41 | 16 ⁷ / ₃₂ | 41 |
| B | 14 | 36 | 22 | 56 |
| C | 1 ⁵ / ₃₂ | 3 | 1 ⁵ / ₃₂ | 3 |
| D* | 10 ¹ / ₁₆ | 26 | 14 ¹ / ₈ | 36 |
| E* | 17 | 43 | 21 | 53 |

*Subtract 2" from "E" dimension for Cast Iron Base Models.

Thread-On Models (see drawing on right)

| | 1SC-2100 | | 1SC-2115 | |
|----|---------------------------------|----|---------------------------------|----|
| | in. | cm | in. | cm |
| A | 16 | 40 | 16 ⁷ / ₃₂ | 41 |
| B | 14 ¹ / ₁₆ | 36 | 22 | 56 |
| C | 1 ⁵ / ₃₂ | 3 | 1 ⁵ / ₃₂ | 3 |
| D | 16 ³ / ₈ | 42 | 20 ¹ / ₂ | 52 |
| E* | 18 ⁵ / ₁₆ | 47 | 22 ¹ / ₂ | 57 |



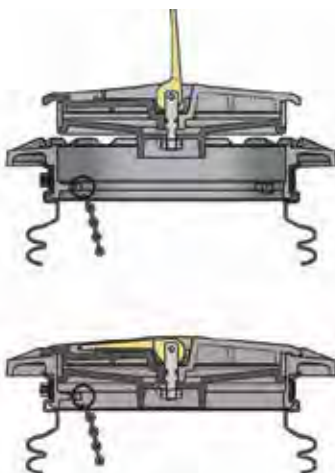
Replacement Parts

| Part # | Description |
|--------------|----------------------------|
| SC-PLAIN | Replacement Cover |
| H13931M | Cover Gasket |
| C04101B | Bronze Lever Arm |
| D01874M | Lower Plate |
| C04141M | Rubber Insert |
| H12927M | Adjustment Nut |
| 1SC-TOOL | Optional Easy Opening Tool |
| 1DK-2100-EVR | Drain Valve Kit |

4" Threaded Nipples for Mating Spill Bucket to Adaptor

| Part # | Description |
|---------|---------------------------|
| TC-400 | 4" Torque Cap |
| H15144M | 4" NPT Nipple, 4" Length |
| H12806M | 4" NPT Nipple, 5" Length |
| VPN4X7 | 4" NPT Nipple, 7" Length |
| H15271M | 4" NPT Nipple, 8" Length |
| H15268M | 4" NPT Nipple, 10" Length |

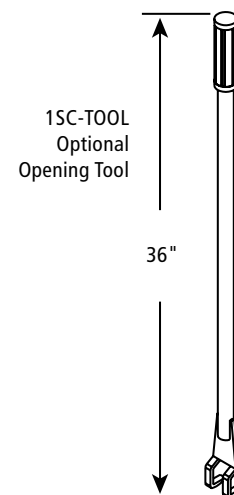
Sealable Cover Operation



Lid in Closed Position



1DK-2100 Drain Valve Kit
Instruction Sheet Order
Number: **H11471M**



OPW 1-2105 Series Slip-On Spill Containers

OPW Slip-On Spill Containment Manholes are used on new or existing UST riser pipes. The spill bucket slides onto 3" or 4" fill and vapor return riser pipes and is then secured in place. Slip-on spill containers provide a fast, economical way to replace uncontained manholes or fill boxes.

Materials

Cover: Cast aluminum or cast iron
Mounting Ring: Duragard® coated cast iron
Bellows: Polyethylene
Base: Duratuff®
Clamps: Stainless steel
Seals: Nitrile

1-2105, 5-Gallon
Slip-On Spill Container



Features

- ◆ **Easy Installation** – clamps directly onto a 4" riser pipe. Reduces job-site time and installation costs; no need to remove, cut or thread riser pipe
- ◆ **Capacity** – available in a true 5-gallon capacity as well as a 15-gallon capacity
- ◆ **Rain-Shedding Cover** – available in either cast aluminum or cast iron, this unique design incorporates a seal in the underside of the cover. The seal seats between two dams on the mounting ring to prevent surface water from entering the spill container
- ◆ **Fuel Compatibility** – designed to accommodate the fuels of the future, including methanol, ethanol and fuels with MTBE additives
- ◆ **Optional Suction Hand Pump** – 8 oz. per stroke capacity for high-speed evacuation of excess liquid. Allows user to pump product back into the tank or out of the spill container for proper disposal
- ◆ **Product Identification Tags** – available for both the spill container cover and bucket to positively identify the product contained in the UST with standard API symbols (See product I.D. tag specification page for more information: page 97.)
- ◆ **Offset Base Pipe Entry** – 1" offset allows for proper clearance with close fill/vapor riser spacing on tanks
- ◆ **Heavy-Duty Mounting Ring** – the angled ramp design offers superior protection against snow plows and provides for secure concrete anchoring
- ◆ **Highway 20 Rated (H20)** – all OPW spill containers and manholes exceed the requirements of the Highway 20 rating

Spill Container Slip-on Model
Instruction Sheet Order Number:
H12262M

Listings and Certifications



Ordering Specifications

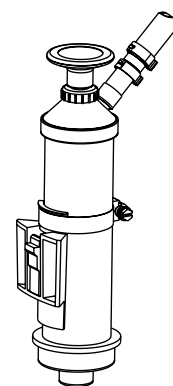
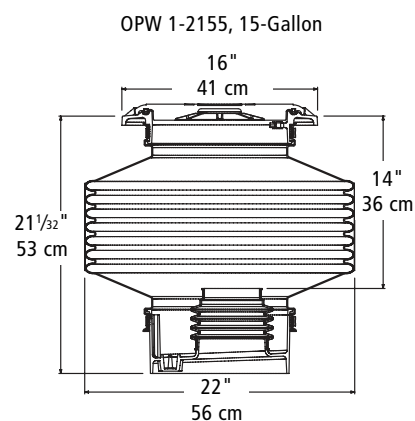
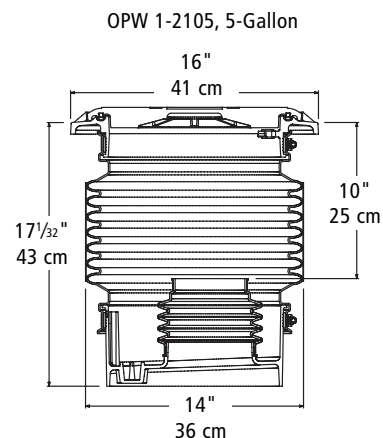
| Model | Gal. | Liter | Cover | lbs. | kg |
|----------|------|-------|-----------|------|----|
| 1-2105 | 5 | 19 | Aluminum | 39 | 18 |
| 1C-2105 | 5 | 19 | Cast Iron | 53 | 24 |
| 1-2155 | 15 | 56 | Aluminum | 45 | 21 |
| 1C-2155 | 15 | 56 | Cast Iron | 55 | 25 |
| 1SC-2105 | 5 | 19 | Sealable | 39 | 18 |
| 1SC-2115 | 15 | 56 | Sealable | 45 | 21 |

Replacement Parts/Accessories

| Part # | Description |
|---------|-------------------------|
| 1-21AC | Aluminum Cover w/ Seal |
| 1-21CC | Cast Iron Cover w/ Seal |
| 1P-2105 | Optional Hand Pump Kit |

| Part # | Description |
|---------|----------------------|
| H12229M | Cover Seal |
| 201567 | Inner Bellows |
| 201759 | 4 x 3 Reducer Insert |

OPW 1-2105 Series Slip-On Spill Containers



1P-2105 Suction
Hand Pump

OPW 101BG-2100 Series Below-Grade Spill Containers

OPW Below-Grade Spill Containment Manholes are used in new tank or riser pipe installations. The watertight spill containment chamber is installed completely below grade level. A grade level manhole cover lies flush with the driveway grade to reduce a tripping hazard and the potential for damage from snow plows and traffic. Surface water drains into the backfill between the manhole skirt and the exterior of the containment bucket. Below-grade spill containers are available in thread-on and slip-on configurations in 5 and 15-gallon capacities.

101BG Slip-on Model Instruction
Sheet Order Number: **H12579M**

101BG-2100 Instruction Sheet
Order Number: **H12260M**

Important Notice: The OPW101BG-2100 Spill Container Series does not prevent contamination of the soil or backfill resulting from spills flowing between the spill container and the outer shell. Ground contamination may result if the spill container is filled beyond capacity, or if a spill occurs outside the spill containment cell.

- ◆ **Highway 20 Rated (H20)** – all OPW spill containers and manholes exceed the requirements of the Highway 20 rating.

Materials

Grade Cover: Fiberglass reinforced composite (steel optional)
Lid: Glass reinforced composite
Lever, top case: Polyethylene
Outer shell: Polyethylene, powder-coated steel
Containment cell: Polyethylene
Base: Duratuff® II or cast iron

101BG-2115,
15-Gallon



Features

- ◆ **Pull-to-Open Drain Valve** – allows high-speed drainage of excess product into the tank. Designed with a convenient self-cleaning seal and removable screen for easier component cleaning (CARB Approved)
- ◆ **Capacity** – 5-gallon and 15-gallon capacities
- ◆ **Outer Shell** – the outer shell isolates the containment vessel from the surrounding concrete and gravel. This high-density polyethylene shell is designed to provide space between the outer shell and the containment vessel to allow any surface water that enters to flow into the backfill, not the containment vessel. Elimination of water in the spill container reduces product contamination and ice formation during cold winter months
- ◆ **Vapor-Tight Lid** – a unique, hinged and sealed containment vessel lid provides a vapor-tight seal, designed to prevent vapors from escaping at ground level while eliminating the accumulation of dirt and water that contaminate fuel. Incorporating a special lid interlock design, the grade level cover cannot be replaced on the outer shell without the lever being in the closed and locked position
- ◆ **Composite Grade Level Cover** – made of sturdy fiberglass-reinforced composite, the grade cover is less prone to theft than aluminum covers, and lighter in weight than cast iron. In addition, the cover lies flush with the actual grade so no ramps are required to support the cover, eliminating snow plow hazards and “speed bumps” (Optional steel plate cover is also available)
- ◆ **Fuel Compatibility** – designed to accommodate the fuels of the future, including methanol, ethanol and fuels with MTBE additives
- ◆ **Easy Installation** – reduces job-site time and installation costs. Simply thread the Duratuff® II base (cast iron base is optional) onto a standard 4" schedule 40 pipe. Guides are provided to assure proper positioning of the spill container. The hinged lid orientation is adjustable during installation for site-specific placement
- ◆ **Product Identification Tags** – available for both the spill container cover and bucket to positively identify the product contained in the UST with standard API symbols (See product I.D. tag specification page for more information: page 97.)

Listings and Certifications

CARB Certifications and Listings

101BG(S)-2100
101BG(S)-2115

Approval Letter #93-26



Ordering Specifications

Duratuff® II Base Models

| Model | Gal. | Liter | Drain Valve | lbs. | kg |
|--------------|------|-------|-------------|------|----|
| 101BG-2100 | 5 | 19 | Pull | 60 | 27 |
| 101BG-2105** | 5 | 19 | None | 60 | 27 |
| 101BG-2115 | 15 | 57 | Pull | 65 | 29 |

**Slip-on Base

Cast Iron Base Models

| Model | Gal. | Liter | Drain Valve | lbs. | kg |
|-------------|------|-------|-------------|------|----|
| 101BG-2100C | 5 | 19 | Pull | 72 | 33 |
| 101BG-2115C | 15 | 57 | Pull | 77 | 35 |

Dimensions

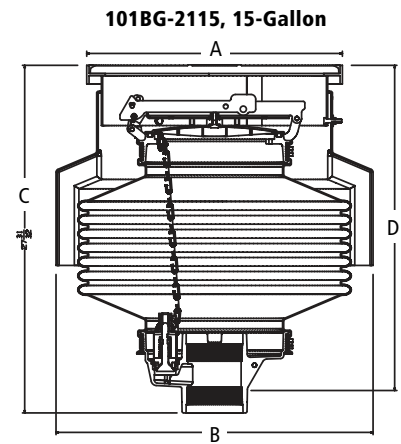
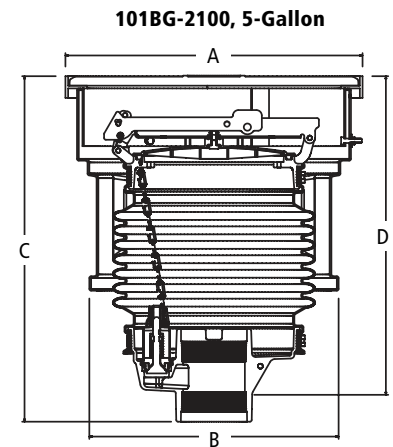
| | 101BG-2100 | | 101BG-2115 | |
|----|----------------------------------|----|----------------------------------|----|
| | in. | cm | in. | cm |
| A | 20 ⁹ / ₁₆ | 52 | 20 ⁹ / ₁₆ | 52 |
| B | 17 ¹ / ₄ | 44 | 25 ¹ / ₂ | 65 |
| C* | 23 ²⁹ / ₃₂ | 76 | 27 ³¹ / ₃₂ | 71 |
| D | 22 ¹ / ₁₆ | 56 | 26 ⁵ / ₃₂ | 66 |

*Subtract 2" from "C" dimension for Cast Iron Base Models.

Replacement Parts/Accessories

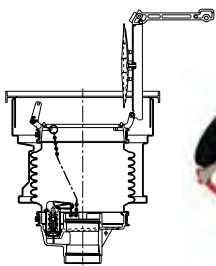
| Part # | Description |
|--------------|--------------------------------------|
| 1DK-2100-EVR | Pull Drain Valve |
| 101BG-21AR | Inside Hatch Height Extender |
| 101BG-21LA | Red Lever & Crossarm Assembly |
| 101BG-LATCH | Latch Kit; Yoke, Cotterpin & Spring |
| 101BG-BUCKET | 5 Gallon Replacement Spill Container |
| C04785M | 5 Gallon Insert Support |

| Part # | Description |
|-------------|-------------------------------------|
| 101BG-COVER | Composite Manhole Cover |
| E00491 | Complete Replacement Top Assembly |
| H11671M | Steel Manhole Cover |
| H12280M | Ring Seal |
| H12620 | Inside Hatch |
| P110-20LID | Steel Manhole Cover w/ID Tag System |

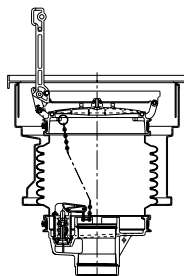


NOTE: "D" dimension is height from riser pipe to finish grade (+1" for slope)

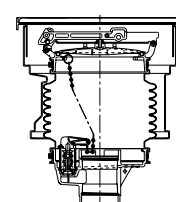
Operation of 101BG Lid



Lid and lever in open position.



Lid down, but not closed. Lever still in upright position preventing replacement of grade cover.



Lid and lever in closed and locked position. Grade cover now easily replaced on rim.

1DK-2100 Drain Valve Kit Instruction Sheet Order Number: H11471M

OPW FibreTite Multi-Port Spill Containment

OPW "FibreTite" Multi-Port Spill Containment Manholes provide spill containment for underground storage tank (UST) fill pipes and vapor recovery risers.

Multi-Ports are installed over the top of tank sumps to preserve future access to the tank top and to facilitate containment of tank bung fittings.

OPW "FibreTite" watertight covers are easy to remove composite manhole covers are available with center or offset port for access to fill risers.

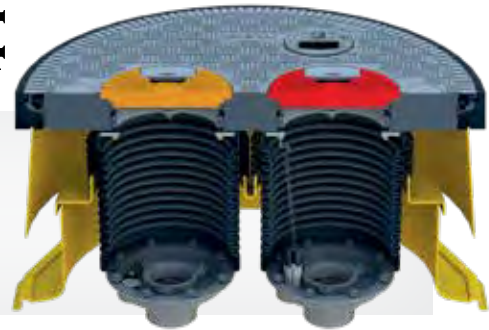


Materials:

Cover: Fiberglass

Frame: Fiberglass

Skirt: Fiberglass



Features & Benefits:

- ◆ Lightweight - reduce risk of back, foot and hand injuries
- ◆ UV resistant
- ◆ Standard duty (20 ton load rating)
- ◆ No Bolts Required to Seal Top Cover
- ◆ Anti-slip surface
- ◆ Composite construction; does not corrode
- ◆ Watertight, sealed design
- ◆ Monolithic structure eliminates delaminating
- ◆ Ergonomic, single person removal and replacement with Fibrelite lifting handle
- ◆ Easy Access Watertight Sump Inspection Port
- ◆ Replaceable Double Wall Spill Containment
- ◆ Easy access to Overfill Prevention Valve

OPW FibreTite Multi-Port and Sump System Kit

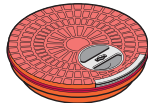
Includes:

- Multiport Cover
- Port Covers
- Top Hat
- Frame
- Shroud Boot
- Sump Base
- Skirt
- Clamping Kits
- Spill Containers
- Water Spill Platform

Ordering Specifications

| Part Number | Application | Tank Collar | Dia. | Height | Sump | | Bonded Manhole | | | |
|------------------------|---------------------------------------|-------------|------|--------|-------------|---------------|----------------|-----------|--------------------|--|
| | | | | | Base | WT Cover | Skirt ID | FRP Cover | Fill & Vapor Cover | |
| S8CR-3100G-MP3716S-W | 5 Gallon Regular Gasoline MP System | 42" | 45" | 48" | Collar Ring | 37" WSP37-16S | 40" | Gray | White/Orange | |
| S8CR-3100G-MP3716S-R | 5 Gallon Premium Gasoline MP System | 42" | 45" | 48" | Collar Ring | 37" WSP37-16S | 40" | Gray | Red/Orange | |
| S8CR-3100G-MP3716S-BU | 5 Gallon Mid-Grade Gasoline MP System | 42" | 45" | 48" | Collar Ring | 37" WSP37-16S | 40" | Gray | Blue/Orange | |
| S8CR-3100G-OF378S-Y | 5 Gallon Diesel Offset System | 42" | 45" | 48" | Collar Ring | 37" WSP37-8S | 40" | Gray | Yellow | |
| S8CRD-3100G-MP3716S-W | 5 Gallon Regular Gasoline MP System | 42" | 45" | 63" | Collar Ring | 37" WSP37-16S | 40" | Gray | White/Orange | |
| S8CRD-3100G-MP3716S-R | 5 Gallon Premium Gasoline MP System | 42" | 45" | 63" | Collar Ring | 37" WSP37-16S | 40" | Gray | Red/Orange | |
| S8CRD-3100G-MP3716S-BU | 5 Gallon Mid-Grade Gasoline MP System | 42" | 45" | 63" | Collar Ring | 37" WSP37-16S | 40" | Gray | Blue/Orange | |
| S8CRD-3100G-OF378S-Y | 5 Gallon Diesel Offset System | 42" | 45" | 63" | Collar Ring | 37" WSP37-8S | 40" | Gray | Yellow | |
| S8SB-3100G-MP3716S-W | 5 Gallon Regular Gasoline MP System | 48" | 45" | 39" | Solid | 37" WSP37-16S | 40" | Gray | White/Orange | |
| S8SB-3100G-MP3716S-R | 5 Gallon Premium Gasoline MP System | 48" | 45" | 39" | Solid | 37" WSP37-16S | 40" | Gray | Red/Orange | |
| S8SB-3100G-MP3716S-BU | 5 Gallon Mid-Grade Gasoline MP System | 48" | 45" | 39" | Solid | 37" WSP37-16S | 40" | Gray | Blue/Orange | |
| S8SB-3100G-OF378S-Y | 5 Gallon Diesel Offset System | 48" | 45" | 39" | Solid | 37" WSP37-8S | 40" | Gray | Yellow | |
| S8SBD-3100G-MP3716S-W | 5 Gallon Regular Gasoline MP System | 48" | 45" | 48" | Solid | 37" WSP37-16S | 40" | Gray | White/Orange | |
| S8SBD-3100G-MP3716S-R | 5 Gallon Premium Gasoline MP System | 48" | 45" | 48" | Solid | 37" WSP37-16S | 40" | Gray | Red/Orange | |
| S8SBD-3100G-MP3716S-BU | 5 Gallon Mid-Grade Gasoline MP System | 48" | 45" | 48" | Solid | 37" WSP37-16S | 40" | Gray | Blue/Orange | |
| S8SBD-3100G-OF378S-Y | 5 Gallon Diesel Offset System | 48" | 45" | 48" | Solid | 37" WSP37-8S | 40" | Gray | Yellow | |

All Fill & Vapor Covers ship with Composite FC-11 Spill Port Covers.*



Add "SC" to the end of the part for Sealable Covers.



Listings and Certifications



*Does not come with FLMP-IP as pictured. Must order separately.

New Style OPW FibreTite Multi-Port Kit to Install on Existing Tank Sump

Includes Spill Containers

Kit includes; Multiport Cover, Frame, Skirt, Spill Containers, Port Covers, Shroud Boot, Clamping Kits, Water Spill Platform and Top Hat



FibreTITE
COMPOSITE MULTI-PORT

Ordering Specifications

| Part Number | Application | WT Cover | Bonded Manhole | | | |
|----------------------|---------------------------------------|---------------|---------------------------|----------|-----------|--------------------|
| | | | Round Sump Riser Diameter | Skirt ID | FRP Cover | Fill & Vapor Cover |
| S42-3100G-MP3716S-W | 5 Gallon Regular Gasoline MP System | 37" WSP37-16S | 42" | 40" | Gray | White/Orange |
| S42-3100G-MP3716S-R | 5 Gallon Premium Gasoline MP System | 37" WSP37-16S | 42" | 40" | Gray | Red/Orange |
| S42-3100G-MP3716S-BU | 5 Gallon Mid-Grade Gasoline MP System | 37" WSP37-16S | 42" | 40" | Gray | Blue/Orange |
| S42-3100G-OF378S-Y | 5 Gallon Diesel Offset System | 37" WSP37-8S | 42" | 40" | Gray | Yellow |
| S48-3100G-MP3716S-W | 5 Gallon Regular Gasoline MP System | 37" WSP37-16S | 48" | 40" | Gray | White/Orange |
| S48-3100G-MP3716S-R | 5 Gallon Premium Gasoline MP System | 37" WSP37-16S | 48" | 40" | Gray | Red/Orange |
| S48-3100G-MP3716S-BU | 5 Gallon Mid-Grade Gasoline MP System | 37" WSP37-16S | 48" | 40" | Gray | Blue/Orange |
| S48-3100G-OF378S-Y | 5 Gallon Diesel Offset System | 37" WSP37-8S | 48" | 40" | Gray | Yellow |



Replacement for Existing FL100 MP System includes Spill Containers

Kit includes; Multiport Cover, Spill Containers, Port Covers, Shroud Boot, Clamping Kits and Water Spill Platform

Ordering Specifications

| | | Bonded Manhole | | | |
|-------------------------|---------------------------------------|----------------|----------|-----------|--------------------|
| Part Number | Application | WT Cover | Skirt ID | FRP Cover | Fill & Vapor Cover |
| FL100G-RETRO-MP3716S-W | 5 Gallon Regular Gasoline MP System | 37" WSP37-16S | 40" | Gray | White/Orange |
| FL100G-RETRO-MP3716S-R | 5 Gallon Premium Gasoline MP System | 37" WSP37-16S | 40" | Gray | Red/Orange |
| FL100G-RETRO-MP3716S-BU | 5 Gallon Mid-Grade Gasoline MP System | 37" WSP37-16S | 40" | Gray | Blue/Orange |
| FL100G-RETRO-OF378S-Y | 5 Gallon Diesel Offset System | 37" WSP37-8S | 40" | Gray | Yellow |

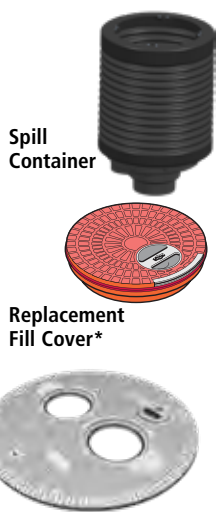
Multi-Port Kit Only, No Sump Includes Spill Containers

Kit includes; Multiport Cover, Frame, Skirt, Spill Containers, Port Covers, Shroud Boot and Clamping Kits

Ordering Specifications

| | | | Bonded Manhole | |
|-------------------------|---------------------------------------|----------|----------------|--------------------|
| Part Number | Application | Skirt ID | FRP Cover | Fill & Vapor Cover |
| FL100GRAY-MP16S-SK12-W | 5 Gallon Regular Gasoline MP System | 40" | Gray | White/Orange |
| FL100GRAY-MP16S-SK12-R | 5 Gallon Premium Gasoline MP System | 40" | Gray | Red/Orange |
| FL100GRAY-MP16S-SK12-BU | 5 Gallon Mid-Grade Gasoline MP System | 40" | Gray | Blue/Orange |
| FL100GRAY-OF8S-SK12-Y | 5 Gallon Diesel Offset System | 40" | Gray | Yellow |

Replacement Parts/Accessories



Spill Container

Replacement Fill Cover*

Replacement 2-Port Cover

| Part Number | Description |
|------------------|---|
| P761C-FLDV | 5 Gallon Fill Bucket for Fibrelite MP with Drain Valve and Cast Iron Base |
| P761C-FLPL | 5 Gallon Vapor Bucket for Fibrelite MP with Plug and Cast Iron Base |
| FC-11-Orange | 11" Orange Vapor Cover |
| FC-11-RED | 11" Red Fill Cover |
| FC-11-WHITE | 11" White Fill Cover |
| FC-11-YELLOW | 11" Yellow Fill Cover |
| FC-11-BLUE | 11" Blue Fill Cover |
| FL100GRAY-MP16S* | FL100 Gray Composite Multiport Cover- 16" Centers |
| FL100GRAY-OF8S | FL100 Gray Composite Cover Offset Port |
| WSP37-16S | 37" Dia. WT MP Spill Platform w Dual Access Part 16" Centers |

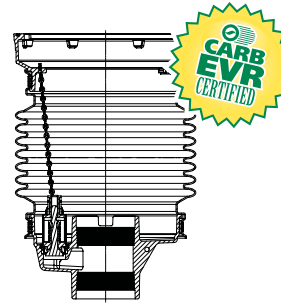
| Part Number | Description |
|-------------|--|
| FLMP-SB | MPS Shroud Boot Kit (Includes WSP-CRKS, Clamp Kit) |
| FLMP-IP | Inspection Port Kit for Fibrelite Multiport |
| FC-11-SEAL | Seal for FC-11 Covers |
| WSP37-8S | 37" Multi-Port Water Shroud for Single Offset Port |
| WS-RING-37 | 37" Dia. Stainless Steel Retaining Ring Kit |
| S-CR-FGK | FRP Kit for Bonding Collar Ring Sump to FGRP Tank Collar (Includes Resin, Catalyst & Glass Tape) |
| S-TH-FGK | FRP Kit for Top Hat to Sump (Includes Resin, Catalyst & Glass Tape) |
| RK-5000 | Fiberglass Epoxy Kit (Qt. Size) |
| 211300 | Epoxy pack to bond 1TAG to composite cover |

See 1TAG section for I.D. markers for new multiport

* Does not come with FLMP-IP as pictured. Must order separately.

Old Style Fibrelite Multiport without Inspection Port Replacement Parts/Accessories

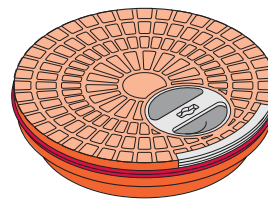
| Part Number | Description |
|----------------|--|
| P711-EVRDV | 5 Gal. Spill Bucket, Composite Base, Drain Valve |
| P711-EVRPL | 5 Gal. Spill Bucket, Composite Base, Plug |
| P761C-EVRDV | 5 Gal. Spill Bucket, Cast Iron Base, Drain Valve |
| P761C-EVRPL | 5 Gal. Spill Bucket, Cast Iron Base, Plug |
| P511-15-EVRDV | 15 Gal. Bucket w/Drain Valve, Composite Base |
| ID-D | ID Plate-Diesel |
| ID-M | ID Plate-MidGrade |
| ID-P | ID Plate-Premium |
| ID-R | ID Plate-Regular |
| ID-E85 | ID Plate-E85 |
| ID-U | ID Plate-Unleaded |
| ID-T | ID Plate-Turbine |
| ID-MW | ID Plate-Monitoring Well |
| FC-10-BLACK | 10" Black Fill Cover |
| FC-10-BLUE | 10" Blue Fill Cover |
| FC-10-GRAY | 10" Gray Fill Cover |
| FC-10-ORANGE | 10" Orange Fill Cover |
| FC-10-RED | 10" Red Fill Cover |
| FC-10-WHITE | 10" White Fill Cover |
| FC-10-YELLOW | 10" Yellow Fill Cover |
| FC-10-SEAL | Replacement Gasket For FC -10 Covers |
| FL90GRAY-MP16 | 36" Gray Replacement Cover 2 Ports, with 16" Centers |
| FL90GRAY-OF | 36" Gray Replacement Cover 1 Port, with 8" Offset |
| FL100GRAY-MP16 | 40" Gray Replacement Cover 2 Ports, with 16" Centers |
| FL100GRAY-OF8 | 40" Gray Replacement Cover 1 Port, with 8" Offset |



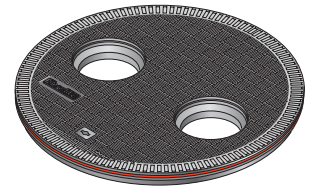
5 Gallon Fill or Vapor Spill Bucket



ID Plate
6" square fiberglass, adhesive backed product ID plates to fit into the cover recess area



Replacement Fill-Port Covers



Replacement 2-Port Covers

Ordering Specifications

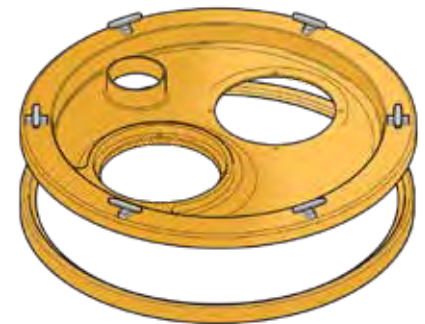
Multi-Port Watertight Spill Platform

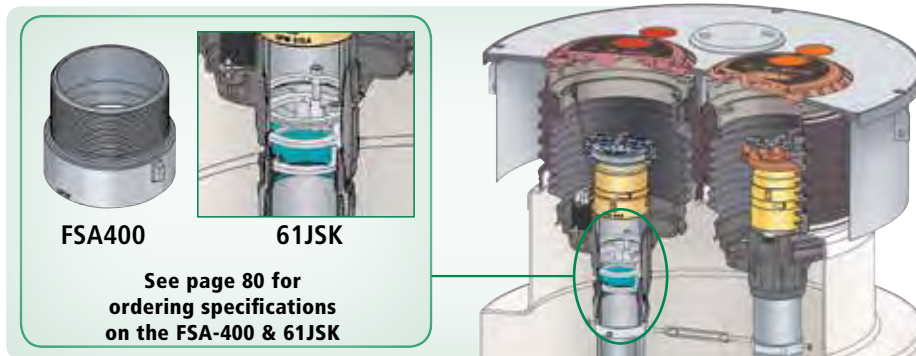
| Part # | Application | Dia. | Height | Base | Weight (lbs) |
|-----------|--|------|---------------|--------------|--------------|
| WSP33-16 | Duel Access Ports 16" Centers Slope to Fill bucket | 33" | (2) 5 Gallon | 16" Center | 13 |
| WSP33-8 | Single Access Port At 8" Off Center Slope to Fill bucket | 33" | (1) 5 Gallon | 8" Offset | 13 |
| WSP37-16 | Duel Access Ports At 16" Center Slope to Fill bucket | 37" | (2) 5 Gallon | 16" Center | 17 |
| WSP37-8 | Single Access Port At 8" Off Center Slope to Fill bucket | 37" | (1) 5 Gallon | 8" Offset | 17 |
| WTS37-16 | Duel Access Ports At 16" Center No Slope to Fill bucket | 37" | (2) 5 Gallon | 16" Center | 17 |
| WTS37-8 | 37" Dia Single Access Port At 8" Center No Slope to Fill bucket | 37" | (1) 5 Gallon | 8" Offset | 17 |
| WSP37-550 | Duel Access Ports At 21.5" Center Slope to Fill Bucket | 37" | (2) 15 Gallon | 21.5" Center | 17 |
| WSP37-275 | Single Access Port At 11" Off Center Slope to Fill Bucket | 37" | (1) 15 Gallon | 11" Offset | 17 |

All Multi-Port Platforms include WSP/CRK bucket clamping Kits

Replacement Parts

| Part # | Description |
|-------------|-----------------------------------|
| WSP-WTS-OPC | 6" Observation Port Cap |
| WTS-CAP-14 | 14" Container Port Cap |
| 209939 | Replacement Handle for FCID Cover |





OPW 400 and 500 Series Multi-Port Spill Containment Manholes

OPW Multi-Port Spill Containment Manholes provide spill containment for underground storage tank (UST) fill pipes and vapor recovery risers in a completely integrated single manhole package. Multi-ports are installed over the top of tank sumps to preserve future access to the tank top and to facilitate containment of tank bung fittings. OPW offers a vast array of standard multi-port configurations and options, in addition to an almost unlimited ability to provide custom solutions for virtually any spill containment application.

Model Descriptions

- ◆ **OPW 411 Series** – features a flush-mounted manhole lid and raised dual dam and groove spill container rings, with P2105 Buckets using OPW 1-2105 Style Slip-On 5-gallon containers. Base is standard 1" offset from center and can be used for 12", 14", 16" or wider riser spacing. Optional 1P-2105 Hand Pump available
- ◆ **OPW 500 Series (511 / 521) EVR Multi-Port** – features a flush-mounted manhole lid and raised dual dam and groove spill container ring, with P511-EVR Buckets using OPW 1-2100 Style Thread-On Spill Containers. All Fill Ports in these spill containers feature an enhanced 1DK-2100-EVR vapor tight drain valve. The Vapor Return Spill Container features a permanent plug in the drain port as per EVR requirements. EVR

Multi-Port Thread-On Spill containers are available in Composite or Cast Iron bases with 5 gallon buckets. Drain Valve Spill Bucket & Plug Spill Bucket standard on Dual Ports, Drain Valve Spill Bucket standard on Single Port

- ◆ **Required for EVR APPLICATIONS** – the FSA-400 Threaded Riser Face Seal Adaptor is installed on the fill pipe below the spill container to provide a true sealing for the drop tube flange on the 71SO overflow prevention valve. The 61SO and/or 71SO series valve is installed in the base of the OPW EVR spill container with the patent pending 61JSK jack screw device. This configuration allows liquid in the spill container to be drained directly into the drop tube, thereby isolating the drain valve from the tank ullage, eliminating a notorious leak point in previous systems

Features

- ◆ **Contractor-Friendly Installation** – studded mounting ring simply bolts together inside the spill containment bucket. No need to align bolt holes in the manhole cover
- ◆ **Raintight Service** – nitrile gaskets on the manhole and spill bucket mounting rings help prevent contamination of the sump area from surface water intrusion
- ◆ **Highway 20 Load Rating** – the rugged diamond plate steel manhole covers, as well as the ductile iron (RT) or aluminum (SC) spill container covers meet H20 Load Rating requirements
- ◆ **Spill Container and Manhole Positive I.D. System** – special recesses cast into spill container covers allow product I.D. tags to be attached to the lids. Matching bucket tags can be affixed to the inside of the spill container to prevent covers from getting switched
- ◆ **Fill/Vapor Ports** – configurations are available to accommodate a single fill riser, dual ports for both a fill and vapor riser, and triple and quad ports for multiple fill and vapor risers. Ports can be supplied with or without containment buckets
- ◆ **Port Configurations** – standard port locations match the popular riser spacings (16" or 24") and bung configurations on underground storage tanks. Custom port locations are easily accommodated. For riser spacings less than 16", old style buckets must be used
- ◆ **CARB Certified** – 500 Series CARB EVR Approved Executive Order #VR-102
- ◆ **Manhole Cover Sizes** – standard bolt-down manhole cover diameters of 30" (76 cm), 37" (94 cm), 42" (107 cm) and 48" (122 cm) allow ample access to the sump area. Heavy-duty reinforced lid options are also available upon request

- ◆ **Spill Container Cover Options** – standard spill container options include the patented OPW dam and groove raintight (RT) design and the watertight Sealable Cover (SC) "plumber's plug" design. The raintight cover features a finger-grip lifting facility and an integral seal. The Sealable Cover features a cam-operated mechanism that expands the seal against the vertical wall of the mounting ring. Both of these water-shedding covers are protected by raised mounting rings.
- ◆ **Fastener Options** – two types of fasteners are available to secure the manhole lid and monitoring port to mounting rings. Standard are 5/16" -18 hex head bolts. Optional are OPW Roto-Lock Fasteners. The OPW Roto-Lock system enables a secure, watertight connection without the need to locate threaded bolt holes on the mounting ring.
- ◆ **Powder Coated Rings & Covers** – available upon request.
- ◆ **Replacement Covers** – see Part Number Configurations at www.opwglobal.com.

Listings and Certifications



Look for this label for authentic OPW EVR Approved products.

CARB EVR Executive Order #VR-102
NYCFD Certified (6571Series) #5053
Florida EQ-145

OPW Multi-Port Spill Containment Ordering Specifications

6

Product Number

EVR

(500 Series Only)
Do Not Enter "EVR"
for old style multiports

Bolt Down Model Number

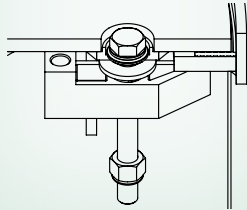
511EVR - HDPE Bellows, Thread-On Composite Base, Bolt-Down
561EVR - HDPE Bellows, Thread-On Cast Iron Base, Bolt-Down

Roto-Lock Model Number

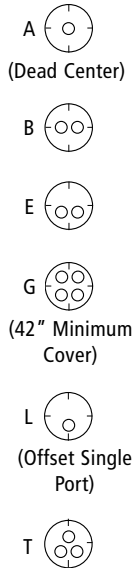
521EVR - HDPE Bellows, Thread-On Composite Base, Roto-Lock
571EVR - HDPE Bellows, Thread-On Cast Iron Base, Roto-Lock

Optional Roto-Lock Fastener System

The OPW Roto-Lock system enables a secure raintight connection without the need to locate threaded bolt holes on the mounting ring.



Fill/Vapor Port Configurations



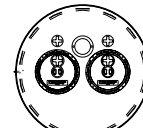
NOTE: 43 or 49 style Gauge Port must be used if a water shroud is to be used with L style

Replacement / Retrofit Manhole RP* - (No Ring / Skirt)

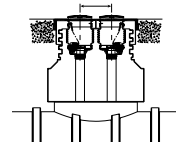
OPW recommends a field survey form on custom RP covers. Incorrect custom models are not eligible for return.

Riser Spacing

00 - Single Port (A Configurations)
16 - 16" Centers
24 - 24" Centers (42" Minimum Cover)
Old Style - 14" Centers Available



Riser Spacing

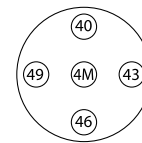


Dimensions

| O.D. | | I.D. | | Thickness | |
|------|-----|--------------------------------|-----|-----------------------------|-------|
| in. | cm | in. | cm | in. | cm |
| 30 | 76 | 26 ⁵ / ₈ | 68 | ³ / ₈ | 0.952 |
| 37 | 94 | 34 ⁵ / ₈ | 88 | ³ / ₈ | 0.952 |
| 42 | 107 | 39 ⁵ / ₈ | 101 | ¹ / ₂ | 1.27 |
| 48 | 122 | 44 ⁵ / ₈ | 113 | ¹ / ₂ | 1.27 |

Gauge Port Location

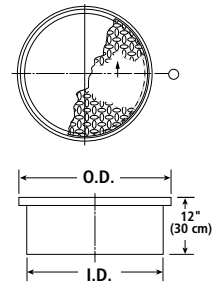
00 - No Gauge Port
40 - Port at 12 o'clock
43 - Port at 3 o'clock
46 - Port at 6 o'clock
49 - Port at 9 o'clock
4M - Port in Center
7X - Flush Mount



Port Location Example

NOTE: 3M Style gauge port must be used with port in the center of "G" Style

Manhole Cover Size*
30" (Configurations)
36 - 36" Retrofit Only
37 - 37"
39 - 39" Retrofit Only
42 - 42"
48 - 48"
* 42" is standard



EVR Multi-Ports

Thread-On Spill Containers are available in composite or cast iron bases with either 5 or 15-gallon buckets. (1) Drain Valve Spill Bucket & (1) Plug Spill Bucket standard on Dual Ports. Drain Valve Spill Bucket standard on Single Port.

Optional Accessories

| Part # | Description |
|------------|--|
| 6511-RB16 | 12" to 18" Riser Spacer |
| 6511-RB24 | 20" to 26" Riser Spacer |
| H15144M | 4" NPT Nipple, 4" Length |
| H12806M | 4" NPT Nipple, 5" Length |
| VPN4X7 | 4" NPT Nipple, 7" Length |
| H15271M | 4" NPT Nipple, 8" Length |
| H15268M | 4" NPT Nipple, 10" Length |
| H15888M | 4" NPT Nipple, 9" Length |
| 209502 | 4" NPT Nipple, 14" Length |
| 209501 | 4" NPT Nipple, 10" Length |
| TC-400 | 4" Torque Cap for 16" Nipples |
| 6521-XAR37 | 36", 37" OR 38" Roto-Lock Adaptor Ring to convert from Bolt Down |
| 6521-XAR42 | 39" OR 42" Roto-Lock Adaptor to convert from Bolt Down |
| 6521-XAR48 | 48" OR 52" Roto-Lock Adaptor to convert from Bolt Down |



6511-RB16
Riser Spacer

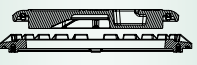


Torque Cap

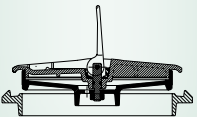


4" Nipple

| Spill Container Cover Style** | Spill Container Capacity*** | # Of Ports With Containment | Powder Coated Manhole Covers |
|-------------------------------|---------------------------------|-----------------------------|------------------------------|
| RT - Raintight | 00 - No Containment | 0 | R - (1) Red |
| SC - Sealable Cover | 05 - 5-Gallon | 1 | (1) Orange |
| 00 - No Ring or Cover | 15 - 15-Gallon | 2 | W - (1) White |
| | *** 5-Gallon bucket is standard | 3 | (1) Orange |
| | | 4 | Y - (1) Yellow |

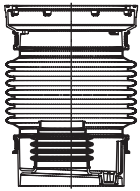


RT - Raintight

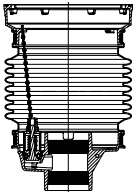


SC - Sealable Cover (Lid in open position)

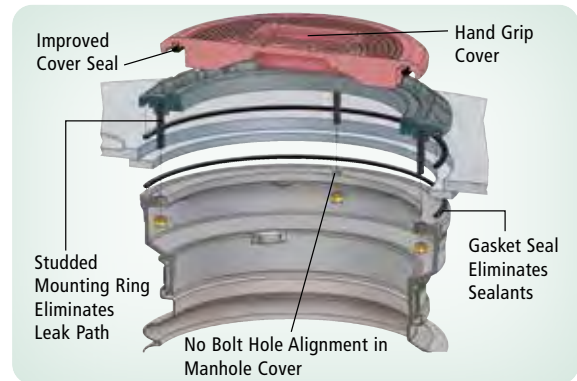
** Raintight cover is standard



411-5-gallon (Slip-On)



511-5-gallon (Thread-On)



Current Replacement Parts

For New 500 Series EVR Multi-Ports 6511/6521, 6561/571 made post 11/2003

| Part # | Description |
|---------------|---|
| P711-EVRDV | Replacement 5-Gallon Bucket, w/ Drain Valve |
| P711-EVRPL | Replacement 5-Gallon Bucket, w/ Plug (Vapor) |
| P761C-EVRDV | Replacement 5-Gallon Bucket, C.I. Base w/ Drain Valve |
| P761C-EVRPL | Replacement 5-Gallon Bucket, C.I. |
| P411-EVRPL | Replacement 5-Gallon Slip-On Bucket |
| P511-15-EVRDV | Replacement 15-Gallon Bucket, Comp Base, W/ Drain Valve |
| C05170M | Gasket, Spill Bucket & Mounting Ring |
| H15187M | Replacement Seal for New Rain Tight Cover |

Note: New P711 & P761 EVR buckets will only work with New "EVR" Multi-Port covers. (made post 11/2003)

See page 95 for replacement rings and covers part numbers.

| Old Style Replacement Parts | |
|---|--|
| 311/411/511/521 Series Multi-Ports | |
| Note: 511/521 parts are for Multi-Ports made prior to Nov. 2003 | |
| Part # | Description |
| 1DK-2100-EVR | 511/521 Series Drain Valve |
| H13931M | Replacement Seal for SC Cover |
| P110-37G | 34" - 37" Manhole Gasket |
| P110-42G | 42" Manhole Gasket |
| P110-48G | 48" Manhole Gasket |
| PROTO-LOCK | (1) Roto-Lock |
| P40-ROTOLID | Replacement 40 Style Gauge Port Roto-Lock Lid |
| H15240M | Replacement Gasket for 40 Style Gauge Port |
| C05501 | Flush Mount Gauge Port Cover Only |
| P571-GK3T | Gasket Kit For New Style 571 Roto Multiport |
| 203148 | Replacement 3M Style Bolt Down Gauge Port, 4.8" diameter |
| 205322 | Replacement 30 Style Bolt Down Gauge Port, 6.5" diameter |
| P311-G | Bucket Top Flange Gasket |
| P511BUCKETBOLT | Spill Bucket RT Ring Kit (4) Bolts, Washers & Gaskets |
| H15238M | Replacement Gasket, 30 Style (Bolt Down) |
| 1-2100-DSH | 5 Gallon Fill Bucket with Composite Base & Drain Valve |
| 1-2100-PSH | 5 Gallon Vapor Bucket with Composite Base & Plug |

| Part # | Description |
|---------------------------------|--|
| 411 P2105BUCKET | 411 Replacement Bucket 5-Gallon |
| Parts 1P-2105 | Hand Pump Kit for 411/P2105 |
| P111-WTL | Replacement Cover (RT) |
| P111WTL-S | Replacement Seal for RT Cover |
| P311-1R | Replacement RT Ring |
| P311-14 | RT Ring for 14" Riser |
| P511YBUCKET | Replacement Waste Oil Bucket |
| P511-DEVRBUCKET | Replacement 5-Gallon Bucket with Drain Valve |
| P511-G14 | Bucket Top Flange Gasket for Notched Gasket Set |
| P511-PEVRBUCKET | Replacement 5-Gallon Bucket with Plug |
| P511C-DEVRBUCKET | Replacement 5-Gallon Bucket With C.I. Base & Drain Valve |
| 511/521 P511C-PEVRBUCKET | Replacement 5-Gallon Bucket With C.I. Base & Plug |
| Parts P511-DEVRB-14 | Replacement 5-Gallon Bucket with Drain Valve 12" & 14" Risers |
| P511-PEVRB-14 | Replacement 5-Gallon Bucket with Plug - 12" & 14" Risers |
| P511C-DEVRB-14 | Replacement 5-Gallon Bucket W/ C.I. Base, Drain Valve for 12" & 14" Risers |
| P511C-PEVRB-14 | Replacement 5-Gallon Bucket W/ C.I. Base, Plug, for 12" & 14" Risers |
| P521-GKIT | 521 Multi-Port Complete Gasket Kit |
| P511-GKIT | 511 Multi-Port Complete Gasket Kit |

See page 95 for additional cover options.

See page 97 for replacement cover options.

Multi-Port Manhole Water Shroud System Option

The new OPW Multi-Port Manhole Water Shroud System (MPWS) is designed to completely isolate surface water and condensation from the tank sump. The MPWS features an injection-molded fiberglass Water Shroud lid that mates to a standard tank sump top hat reducer. This new bolt down design allows even compression to facilitate water-tight sump access. Shroud Boots isolate the spill container buckets using stainless steel band clamps, which provide a tight seal between the water shroud top hat and the underside of the spill container mounting rings. A 6" Sump Inspection Port is provided on each FRP Cover, allowing full inspection access through the Multi-Port Gauge Port. The OPW Water Shroud system is available in 33" and 36" models. The MPWS Water Shroud is sold separately.



**Rubber
Shroud Cap**



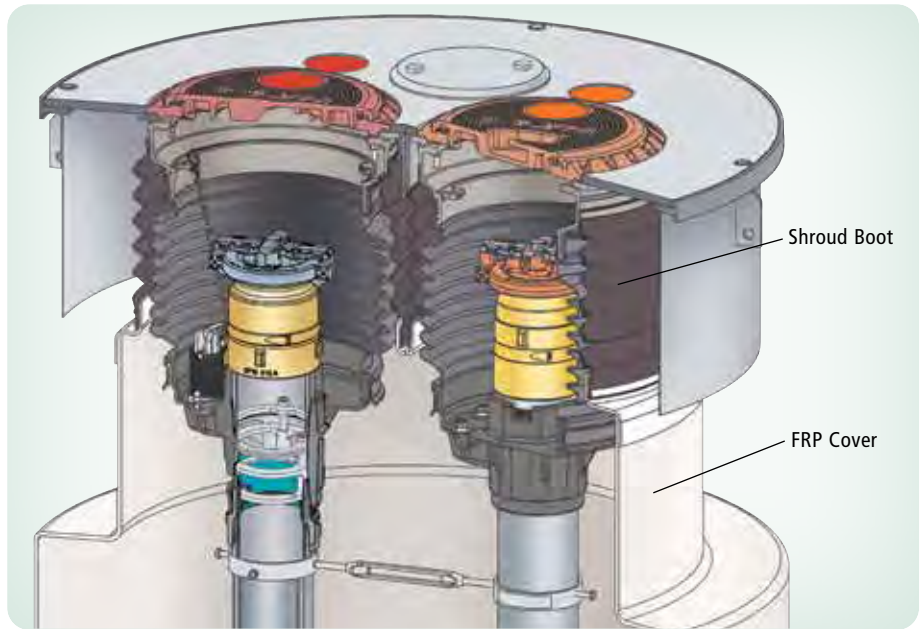
**Shroud Boots
Vinyl Plastisol**



**Sump Inspection
Port (SIP) – Clear
ABS Construction
Inspection Port**



**FRP Cover
Injection
Molded
Fiberglass
Cover**



Ordering Specifications

| Part # | Description |
|------------|---|
| MPWS-33 | 33" FRP Cover with (2) 5-gallon Water Shroud Boots & Clamps |
| MPWS-33BD | 33" Bolt Down Water Shroud |
| MPWS-33BDD | 33" Bolt Down Water Shroud for Diesel |
| MPWS-36 | 36" FRP Cover with (2) 5-gallon Water Shroud Boots & Clamps |
| MPWS-39BD | 39" Bolt Down Water Shroud |

Replacement Parts

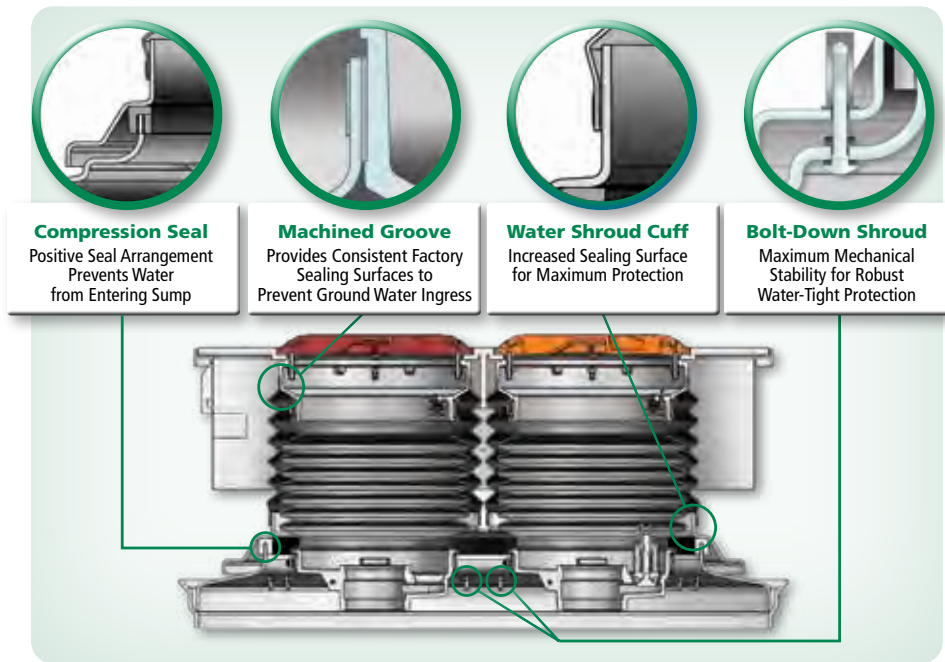
| Part # | Description |
|---------|---|
| C05223M | Shroud Boot Cap to Isolate One FRP Cover Port |
| D02571M | 33" FRP Replacement Cover |
| D02575M | 5-Gallon Shroud Boot |
| H15188M | Lower Clamp for 5-Gallon Shroud Boot |
| H15190M | Upper Clamp for 5 or 15-Gallon Shroud Boot |
| SIP-6 | 6" Sump Inspection Port Sight Glass |
| SLPK | Gasket and Sealant Kit for Shroud |
| 201393 | 36" Riser Cover with Gauge Port Tote |
| 205181 | Lower Clamp for 5 Gallon Shroud |
| 205183 | Upper Clamp for 5 Gallon Shroud |

**Listings and
Certifications**

**Florida EQ-145
NY Approval**



NOTE: Part numbers do not include rings or covers. Rings and Covers must be ordered separately.



Bolt Down Manhole Water Shroud System Option

The Bolt Down Multi-Port Water Shroud (MPWS-BD) is designed to mate with the OPW Multi-Port. The MPWS-BD isolates surface water and condensation from Tank Sumps.

Shroud boots isolate the spill container buckets using stainless steel band clamps, providing a tight seal between the water shroud top hat and the underside of the spill container-mounting ring. Bolts on the outer edge of the shroud cover secure it to the top hat. Available in 33" and 39" Diameter Covers.

Ordering Specifications

| Part # | Description |
|--------------------------------------|---------------------------------|
| Bolt-Down FRP Top Hat Options | |
| 203246 | 42" x 33" FRP Bolt-Down Top Hat |
| 203272 | 42" x 39" FRP Bolt-Down Top Hat |

New Ring and Cover Part Numbers

| Raintight Covers | | Raintight Cover Rings | | Sealable Covers | | Sealable Cover Rings | |
|------------------|--|-----------------------|--|-----------------|--|----------------------|--|
| RTC-WHITE | | RTR-WHITE | | SC-WHITE | | SCR-WHITE | |
| RTC-RED | | RTR-RED | | SC-RED | | SCR-RED | |
| RTC-YELLOW | | RTR-YELLOW | | SC-YELLOW | | SCR-YELLOW | |
| RTC-GREEN | | RTR-GREEN | | SC-ORANGE | | SCR-ORANGE | |
| RTC-ORANGE | | RTR-ORANGE | | SC-BLACK | | SCR-BLACK | |
| RTC-BLACK | | RTR-BLACK | | SC-PLAIN | | | |

Replacement Parts

| Part # | Description |
|---------|---|
| C05223M | Shroud Boot Cap to Isolate One FRP Cover Port |
| D02571M | 33" FRP Replacement Cover |
| 201393 | 36" FRP Replacement Cover |
| D02575M | 5-Gallon Shroud Boot |
| H15187M | Raintight Cover Replacement Gasket |
| H15188M | Lower Clamp for 5-Gallon Shroud Boot |
| H15190M | Upper Clamp for 5 or 15-Gallon Shroud Boot |
| SIP-6 | 6" Sump Inspection Port Sight Glass |
| SLPK | Gasket and Sealant Kit for Shroud |
| 205181 | Lower Clamp for 5 Gallon Shroud |
| 205183 | Upper Clamp for 5 Gallon Shroud |

OPW 106 Identification Marker

OPW 106 Identification Markers are used to identify the grade product stored in underground tanks. These markers are easily set in concrete, and once set, are permanent. The letter plate is recessed into the face of the base and fastened with two screws. The raised letters are easy to change when the product is changed. Letters available are P, R, U, SU, X, DL. Numbers 1, 2, 3, 4.

OPW 107 Nameplate Holder

OPW 107 Nameplate Holders, when secured to storage tank fill pipes, provide a method to permanently identify the product in the tanks.

Spill Container Product Identification Tags

OPW Color-Coded Spill Container Tags positively and conspicuously identify tanks, preventing costly and dangerous product drop mistakes. Simply "peel and stick" the high-visibility color inserts into the special recesses cast into the spill container cover.

Matching bucket tags, supplied with tie wraps, are permanently affixed inside the spill container to help prevent covers from getting switched.

Materials

Base And Anchor Shank: Aluminum

Letter Plate: Cast aluminum

Screws (2): Brass



Ordering Specifications

| Product # | Fuel Type | lbs. | kg |
|------------|----------------|------|-----|
| 106DL-0095 | Diesel | .43 | .20 |
| 106P-0150 | Premium | .41 | .19 |
| 106R-0175 | Regular | .44 | .20 |
| 106SU-0185 | Super Unleaded | .43 | .20 |
| 106U-0125 | Unleaded | .44 | .20 |

| Product # | Fuel Type | lbs. | kg |
|------------|-----------------|------|-----|
| 106UP-0125 | Unleaded "Plus" | .44 | .20 |
| 106N-1100 | I.D. Marker #1 | .44 | .20 |
| 106N-2200 | I.D. Marker #2 | .44 | .20 |
| 106N-3300 | I.D. Marker #3 | .44 | .20 |
| 106N-4400 | I.D. Marker #4 | .44 | .20 |

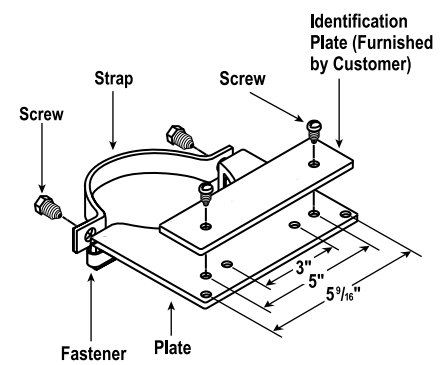
Materials

Plate: Plated steel

Straps: Plated steel

Ordering Specifications

| Product # | in. | mm | lbs. | kg |
|-----------|-----|-----|------|-----|
| 107-0300 | 4 | 102 | .39 | .18 |



Features

- ◆ **Unique Fiberglass Embedment Process** - ensures that the color identifiers won't scratch, crack, peel, weather or fade, even in gasoline and the harshest of environments
- ◆ **Compatible** – with all OPW 1-2100 Series Spill Containers, including aluminum, cast iron, sealable cover and 101BG Composite Cover models. Also compatible with 111 Series, Multi-Port Spill Containers and OPW 104FG/104C Manhole Covers
- ◆ **Available in All API Product I.D. Designations**



| Product | Product Designations | | Cover I.D. Tag Product # | Bucket I.D. Tag Product # |
|---------------------------------------|------------------------------------|-----|--------------------------|---------------------------|
| Regular Unleaded | White w/ Black Cross | + | 1TAG-1000 | 1TAG-1010 |
| Mid-Grade Unleaded | Blue w/ White Cross | + | 1TAG-2000 | 1TAG-2010 |
| Premium Unleaded | Red w/ White Cross | + | 1TAG-3000 | 1TAG-3010 |
| Diesel | Yellow Hex | ⬡ | 1TAG-4000 | 1TAG-4010 |
| Vapor Recovery | Solid Orange | ● | 1TAG-7000 | 1TAG-7010 |
| 85% Ethanol (E85) | Bronze Diamond Black letters (E85) | E85 | 1TAG-CE85 | 1TAG-BE85 |
| Ultra Low Sulfur | Yellow Hex / Black letter (U) | U | 1TAG-4200 | |
| Epoxy for Bonding to composite covers | | | 1TAG-211300 | |

UST Fill Pipe Connection Equipment

Tight-Fill Adaptors and Caps

Tight-Fill Adaptors are installed in spill containment manholes on the fill riser pipe from an underground fuel storage tank. They mate with the gravity drop delivery elbow on the transport truck. Tight-Fill Caps are installed on adaptors, when not in use, to prevent gasoline vapors from escaping and to prevent water, dust and debris from entering the tank.

Stage I Vapor Recovery Adaptors and Caps

Stage I Vapor Recovery Adaptors are installed in spill containment manholes on the vapor recovery riser pipe from an underground gasoline storage tank. They mate with the vapor recovery elbow on the delivery transport truck when recovery of gasoline vapors is required. Stage I Caps are installed on adaptors, when not in use, to prevent gasoline vapors from escaping and to prevent water, dust and debris from entering the tank.

Monitor Probe and Monitoring Well Caps

Monitoring Probe Caps are installed on tank riser pipes to help prevent vapors from escaping or water from entering the tank. Monitoring Probe Caps include a wire grommet fitting to accommodate the electric tank gauge probe. Lockable Monitoring Well Caps are installed on slotted PVC pipe monitoring wells to help prevent contamination from surface water intrusion or inadvertent fuel deliveries.

OPW Adaptor & Cap Height Profiles

The adaptor and cap dimensions below reflect the overall height and installed height of OPW adaptors and adaptor and cap combinations. The installed height is from the gasket seal to the top of the component. For example, the 61VSA height is 6 1/2", but only adds 4-7/8" to the overall height when added to the riser.



61VSA Vapor Recovery Swivel Adaptors

Overall Height Installed Height
6-1/2" 4-7/8"



1611AV Standard Vapor Adaptors

Overall Height Installed Height
5-7/16" 4-3/4"



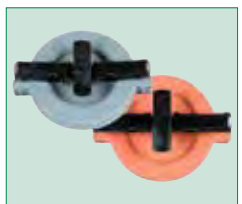
61SALP Fill Swivel Adaptor

Overall Height Installed Height
4-3/8" 2-7/8"



633T Standard Fill Adaptor

Overall Height Installed Height
3" 2"



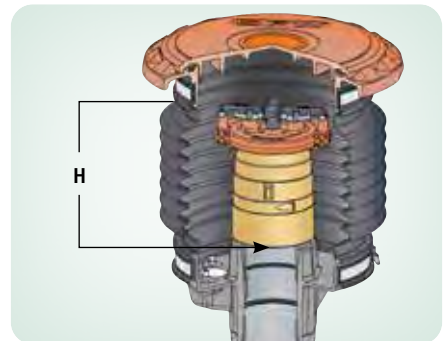
634TT Fill and 1711T Vapor Caps

Overall Height Installed Height
2-9/16" 1-1/2"



634LPC Fill and 1711LPC Low Profile Caps

Overall Height Installed Height
7/8" 1/2"



Dimensions

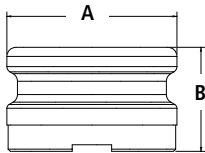
| Product Combinations | H = Total Installed Height | |
|----------------------|-------------------------------|-----|
| | in | mm |
| 61VSA & 1711T | 6 ³ / ₈ | 162 |
| 61VSA & 1711LPC | 5 ³ / ₈ | 137 |
| 1611AV & 1711T | 6 ¹ / ₄ | 159 |
| 1611AV & 1711LPC | 5 ³ / ₈ | 136 |
| 61SALP & 634TT | 4 ³ / ₈ | 111 |
| 61SALP & 634LPC | 4 ⁷ / ₈ | 124 |
| 633T & 634TT | 4 ¹ / ₂ | 114 |
| 633T & 634LPC | 3 ¹ / ₂ | 89 |

OPW Tight-Fill Top-Seal Adaptors

Tight-Fill Top-Seal Adaptors are installed in spill containment manholes on the fill riser pipe from an underground fuel storage tank. They mate with the gravity drop delivery elbow on the transport truck.



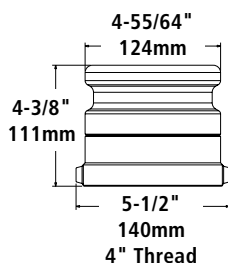
633T-8076



61SALP-1020-EVR



61SALP-MA
E85 EVR Approved



OPW 633T

OPW 633T Top-Seal Adaptors thread onto the fill pipe of underground storage tanks, and are designed to mate with top-seal delivery elbows. Use OPW 634TT, 634TE or 634TTP Top-Seal Caps with 633T Adaptors.

Features

- ◆ **Easy Installation** – integral internal wrenching lugs are provided for installing in the confined space of spill containers
- ◆ **Accommodate 633LC Lock Clamp** – 4" x 4" 633T (E) models incorporate dual notches in the base to accept 633LC clamps
- ◆ **Manufactured from Durable, Corrosion-Resistant Materials** – bronze and hardcoat aluminum

Ordering Specifications

| Product # | Elbow Size | Riser Thread | A | | B | | Weight | | Material |
|-----------|------------|--------------|---------------------------------|----|---------------------------------|-----|--------|------|----------------|
| | | | in. | mm | in. | mm | lbs. | kg | |
| 633T-8060 | 3" | 3" | 3 ¹⁹ / ₃₂ | 41 | 1 ⁵ / ₈ | 92 | 0.96 | .44 | Bronze |
| 633T-8070 | 3" | 4" | 3 ¹⁹ / ₃₂ | 68 | 2 ¹¹ / ₁₆ | 92 | 0.71 | .32 | Hardcoated Al. |
| 633T-8075 | 4" | 4" | 4 ⁵⁵ / ₆₄ | 75 | 2 ³¹ / ₃₂ | 124 | 0.82 | .37 | Hardcoated Al. |
| 633T-8076 | 4" | 4" | 4 ⁵⁵ / ₆₄ | 75 | 2 ³¹ / ₃₂ | 124 | 2.70 | 1.23 | Bronze |

Note: Maximum height of adaptor is 2¹¹/₁₆" (68mm).

Replacement Parts

| Part # | Description |
|---------|-------------|
| H05289M | Gasket |
| H04150M | Gasket |
| H04150M | Gasket |
| H04150M | Gasket |

OPW 61SA Swivel Adaptor

Pressure decay testing of underground storage tank systems has identified the joint between the tight-fill adaptor and the nipple or tank riser as a persistent leak point. Considerable movement takes place along the hose while the fill elbow is connected. Walk-downs and changes from one compartment to another move the hose across the pavement, rotating the elbow along with it. The result can be a loosening of the adaptor. As the adaptor backs off, the seal between it and the nipple is relaxed and a leak path is created allowing vapors to escape to the atmosphere. Vacuum-assist dispensing systems can aggravate this situation due to the slight pressurization of the UST.

The 61SA Swivel Adaptor mates with 4" top-seal delivery elbows and features a top section that rotates with hose movement while the bottom section remains securely in place maintaining seal integrity.

Features

- ◆ **Dual Seals** – ensure a vapor and liquid-tight seal
- ◆ **Conductive, Self-Lubricating Retaining Rod** – ensures maintenance-free, reliable service life
- ◆ **Same Internal Dimension as Standard 633T Adaptors** – to minimize pressure drop and maximize flow rates for quick product delivery
- ◆ **61SALP-MA – EVR Approved for E85**

Ordering Specifications

| Product # | Base Material | Adaptor Material | Weight | |
|------------------|--------------------|------------------|--------|-----|
| | | | lbs. | kg |
| 61SALP-1020-EVR* | Bronze | Bronze | 7.1 | 3.2 |
| 61SALP-MA | Nickel | Nickel | 7.1 | 3.2 |
| 61SA-Tool** | Wrench | | 11.0 | 5.0 |
| H09039M | Replacement Gasket | | | |

*Low Profile Fill Adaptor **See description on page 99.

Materials

Retaining Ring: Conductive nylon

Set Screws: Stainless steel

Seals: Buna-N

Listings and Certifications



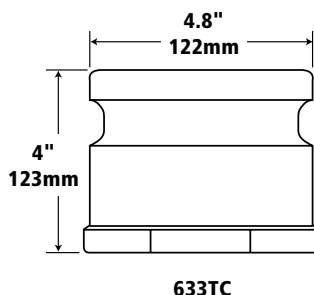
Look for this label for authentic OPW EVR Approved products. 61SALP-1020 & 61SALP-MA are EVR Approved for E85 USA Patent No. 5,664,951



Materials

Available in bronze or anodized aluminum for corrosion and wear resistance

633TC



633TC

Ordering Specifications

| Product # | Elbow Size | | Riser Thread | | lbs. | kg | Description |
|-------------|------------|-----|--------------|-----|------|-----|-------------------|
| | in. | mm | in. | mm | | | |
| 633TC-8090 | 4 | 102 | 4 | 102 | 1.45 | .66 | Anodized Aluminum |
| 633TCP-3803 | 4 | 102 | 4 | 102 | 1.26 | .57 | Anodized Aluminum |

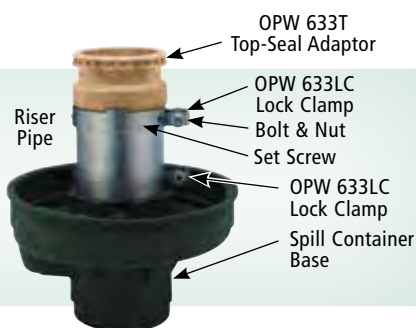
Matching Adaptors & Caps

| | Description | Adaptor Part # | Seal | Cap Part # |
|------------|------------------------------|-------------------------------|----------------------------|----------------|
| Fill | 3" Fill Elbow | 633T, 633TE | Top | 634TE |
| | 4" Fill Elbow | 633T, 633TE, 61SA, 61SALP | Top | 634TT, 634LPC |
| | 4" Coaxial Fill Elbow | 633TC, 633TCP | Top | 634TT, 634LPC |
| | 3" Fill Elbow | 61AS-3" | Side | 62 |
| Vapor | 4" Fill Elbow | 61AS-4" | Side | 62, 62TT |
| | 3" Vapor Elbow | 1611AV, 1611AVB, 1611VR | Top | 1711T, 1711LPC |
| Monitoring | Monitoring Well Pipe Caps | 62M, 116M, 116, 634TTM, 62PMC | Complete Adaptor & Cap Kit | |
| Loose-Fill | Loose-Fill Pipe Caps 83, 269 | | Complete Adaptor & Cap Kit | |

* Any variation of desired Adaptors will mate with corresponding Caps

Materials

Clamp: Stainless steel
Bolt: Zinc plated steel
Set Screw: Stainless steel



633LC



Ordering Specifications

| Part # | in. | cm | Description |
|------------|-----|-------|-------------------------------|
| 633LC-1000 | 4" | 10.16 | Stainless Steel Locking Clamp |



OPW 61SA-TOOL

OPW 61SA-TOOL

The 61SA-TOOL is a wrench designed to thread on the 61SA Fill and 61VSA Vapor Adaptors. The OPW 61SA-TOOL Adaptor installation tool is required to insure proper installation of OPW rotatable swivel adaptors, thread-on spill containers, fill and vapor adaptors, TC-400 torque cap for pipe nipples and threaded riser adaptors as per EVR requirements. The 61SA-TOOL includes provisions for the use of a torque wrench to facilitate accurate installation and testing.

OPW Tight-Fill Top-Seal Adaptors

Coaxial Adaptors

OPW 633TC

OPW coaxial vapor recovery fittings provide an easy, inexpensive means to convert existing conventional 4" underground storage tank fill pipes to coaxial vapor recovery installations when Stage I Vapor Recovery is required. Normally, little or no digging or breaking of concrete is necessary. Simply remove existing tight-fill adaptor and drop tube (if installation is so equipped), and insert an OPW 61TC Coaxial Drop Tube and the 633TC Adaptor. The OPW 633TC Adaptor is designed to mate with a coaxial delivery elbow.

OPW 633TCP Use On 61SOP

The OPW 633TCP Coaxial Adaptor features a poppeted vapor return path that opens only when connected to a fill elbow. When not in use, the vapor path is sealed, preventing fugitive emissions. The 633TCP is a replacement adaptor for the 61TCP Coaxial Drop Tube, and is designed to mate with a coaxial delivery elbow.

NOTE: Poppeted fittings are certified by California Air Resources Board (CARB).

OPW 633LC

OPW 633LC Lock Clamp is designed to lock the OPW adaptor onto the riser pipe, preventing any potential vapor leaks from pressurized systems. The locking clamp slips over the riser pipe. The 633T, 633TE, or 1611 Adaptor is then threaded onto the riser pipe. Next, the lock clamp should be slid up the riser until the protrusions in the lock clamp line up with the notches in the adaptor. Once the adaptor and clamp are engaged, the lock clamp can be tightened and the adaptor will be locked onto the riser pipe, preventing it from being loosened by a delivery elbow.

Additionally, the lock clamp can be turned upside down on the riser pipe to lock the riser into the base of all OPW spill containers, which have notches in them similar to the adaptors. Using the lock clamp in this manner will lock the riser pipe into the spill container.

633TC & 633TCP Instruction Sheet Order Number: **H10013PA**

OPW 634 Series Tight-Fill Top-Seal Caps

Tight-Fill Top-Seal Caps are installed on top-seal adaptors, when not in use, to prevent gasoline vapors from escaping and to prevent water, dust and debris from entering the tank.



Look for this label for authentic OPW EVR Approved products.
EVR Approved for E85

Materials

Cap & Links: Duratuff®
Pins: Stainless steel
Gasket: Nitrile
Color: Grey

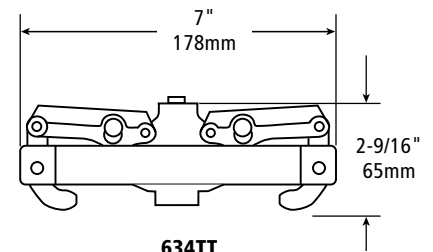


Ordering Specifications

| Product # | in. | mm | lbs. | kg |
|----------------|-----|-----|------|-----|
| 634TT-7085-EVR | 4 | 102 | 1.01 | .46 |

Replacement Parts

| Part # | Description |
|---------|----------------|
| H15005M | Nitrile Gasket |



NOTE: Effective height above adaptor: 1-19/32"

OPW 634TT

The OPW 634TT is designed to mate with 4" 633T, 633TE, 61SA, 633TC, and 633TCP Top-Seal Adaptors. Heavy duty and corrosion resistant, the body is made of Duratuff® to help eliminate rust and oxidation for a long, maintenance-free life. The toggle lever distributes downward pressure to compress its Buna-N gasket evenly, ensuring a positive, water and vapor-tight seal. The 634TT can be locked with a padlock or wire seal.

The OPW 633TE adaptor is similar to the 633T, except it does not have internal wrenching lugs.

OPW 634TT - Metal

The 634TT-4000 is a metal top-seal cap with the same dimensions as the 634TT-7085.

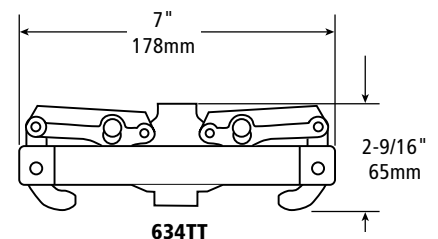
Materials

Cap: Die cast zinc (powder coated black)
Lever: Duratuff®
Pins: Stainless steel
Gasket: Nitrile



Ordering Specifications

| Product # | in. | mm | lbs. | kg |
|------------|-----|-----|------|-----|
| 634TT-4000 | 4 | 102 | 1.01 | .46 |



Listings and Certifications



Look for this label for authentic OPW EVR Approved products.
OPW 634TT & 634LPC
are EVR Approved for E85



Materials

Cap: Cast zinc alloy
(powder coated
yellow or grey)

Lever: Ductile iron

Gasket: Nitrile

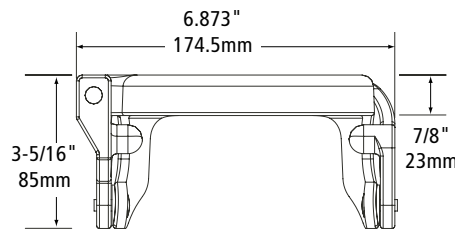


Ordering Specifications

| Product # | in. | mm | lbs. | kg |
|-----------------------|-----|-----|------|------|
| 634LPC-0400 - Gray | 4 | 102 | 3.5 | 1.59 |
| 634LPC-0400D - Yellow | 4 | 102 | 3.5 | 1.59 |

Replacement Parts

| Part # | Description |
|---------|---------------|
| H15005M | Buna-N Gasket |



634LPC

Note: Effective height above adaptor: 1/2"

OPW 634LPC Low Profile Top-Seal Fill Cap

The OPW 634LPC Low Profile Top-Seal Fill Cap is designed for tight installations where the clearance between the top of the fill adaptor and the underside of the spill container cover is limited. The rugged iron lever provides a positive cam-action that seats the cap firmly in the adaptor groove for a water and vapor-tight seal. When engaged, the lockable cap adds only 1/2" to the final height of the adaptor. The 634LPC can be used with the 4" OPW 633T, 633TE, 633TC, and 61SA series top-seal fill adaptors.



Look for this label for
authentic OPW EVR
Approved products.
EVR Approved for E85

Materials

Cap: Duratuff®

Lever: Brass

Gasket: Nitrile

Pivot pin: Stainless steel

Color: Grey

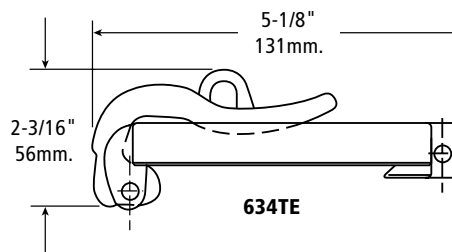


Ordering Specifications

| Product # | in. | mm | lbs. | kg |
|------------|-----|----|------|-----|
| 634TE-7085 | 3 | 76 | 1.11 | .50 |

Replacement Parts

| Part # | Description |
|----------|-------------|
| C01094RB | Lever |
| H10765M | Gasket |
| H10731RE | Pivot Pin |



634TE

OPW 634TE Single Lever Action Top-Seal Cap

The OPW 634TE is a Single Lever Action Top-Seal Cap designed to mate with 3" OPW 633T Top-Seal Adaptors.

The locking lever seats in the groove in the adaptor, providing a cam-down action on the cap for a positive water and vapor-tight seal. The 634TE can be locked with a padlock or wire seal. Patent #3,118,561.

OPW Tight-Fill Side-Seal Adaptors

OPW 61AS Side-Seal Adaptors thread onto the fill pipe of underground storage tanks, and are designed to mate with side-seal delivery elbows.

Materials

Body: Bronze
Gasket: Nitrile

61AS



Ordering Specifications

| Part # | Elbow Size | | Riser Thread | | lbs. | kg |
|-----------|---------------|-----|-----------------|-----|------|-----|
| | in. | mm | in. | mm | | |
| 61AS-2477 | 4 | 102 | 4 | 102 | 1.99 | .90 |

NOTE: Maximum height of adaptor is 2" (51 mm).

Replacement Parts

| Part # | Size | | Description |
|---------|-------|-----------|-------------|
| | in. | mm | |
| H04145M | 3 x 3 | 76 x 76 | Gasket |
| H09039M | 4 x 4 | 102 x 102 | Gasket |

OPW Tight-Fill Side-Seal Caps

Tight-Fill Side-Seal Caps are installed on side-seal adaptors, when not in use, to prevent gasoline vapors from escaping and to prevent water, dust and debris from entering the tank.

OPW 62TT

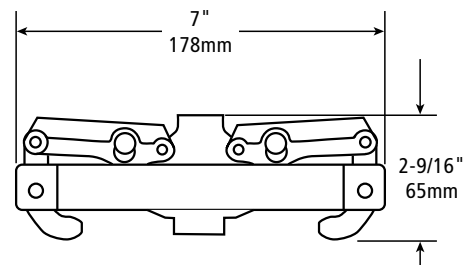
The OPW 62TT Side-Seal Cap is designed to mate with the 61AS Side-Seal Adaptor. The cap has a lever and gasoline-resistant Buna-N gasket to help assure a positive seal. The 62TT is constructed of Duratuff®, a high-impact composite that helps eliminate rust and oxidation to assure a long, maintenance-free life.

Materials

Cap & Links: Duratuff®
Pins: Stainless steel
Color: Black



62TT



Ordering Specifications

| Product # | in. | mm | lb. | kg |
|-----------|-----|-----|------|-----|
| 62TT-7085 | 4 | 102 | 1.15 | .52 |

Replacement Parts

| Part # | Description |
|---------|-------------|
| C03485M | Gasket |

Materials

Adaptor: Bronze
Base: Bronze
Retaining Ring:
Conductive nylon
Set Screws:
Stainless steel
Seals: Nitrile



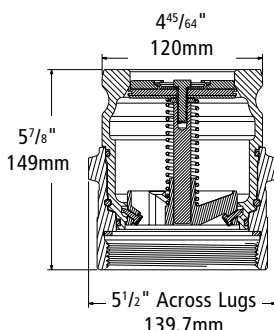
61VSA-1020-EVR
USA Patent No. 5,664,951

Features

- ◆ **Dual Seals** – ensure a vapor and liquid-tight seal
- ◆ **Conductive, Self-Lubricating Retaining Rod** – ensures maintenance-free, reliable service life
- ◆ **Same Internal Dimension as Standard 633T Adaptors** – to minimize pressure drop and maximize flow rates for quick product delivery
- ◆ **Self Guiding Poppet** – for consistent tight seal

Ordering Specifications

| Product # | Base Material | Adaptor Material | Weight lbs. | kg |
|----------------|--------------------|------------------|-------------|-----|
| 61VSA-1020-EVR | Bronze | Bronze | 10.5 | 4.8 |
| 61SA-TOOL | Wrench | | 11.0 | 5.0 |
| H09039M | Replacement Gasket | | | |



OPW 61VSA-MA Vapor Recovery Swivel Adaptor

Adaptor: Nickel coated brass
Base: Nickel coated brass
E85 EVR Approved

Ordering Specifications

| Product # | Base Material | Adaptor Material | Weight lbs. | kg |
|-----------|---------------------|---------------------|-------------|-----|
| 61VSA-MA | Nickel Coated Brass | Nickel Coated Brass | 10.5 | 4.8 |
| H09039M | Replacement Gasket | | | |



OPW Stage I Vapor Recovery Adaptors and Caps

Stage I Vapor Recovery Adaptors are installed in spill containment manholes on the vapor recovery riser pipe from an underground gasoline storage tank. They mate with the vapor recovery elbow on the delivery transport truck when recovery of gasoline vapors is required.

OPW 61VSA Vapor Swivel Adaptor

The OPW 61VSA Vapor Swivel Adaptor is a poppeted adaptor, designed to mate with a vapor recovery elbow, featuring a top section that rotates with hose movement while the bottom section remains securely sealed to the 4-inch tank riser.



OPW 61SA-TOOL

The 61SA-TOOL is a wrench designed to thread on the 61SA Fill and 61VSA Vapor Adaptors. The OPW 61SA-TOOL Adaptor installation tool is required to insure proper installation of OPW rotatable swivel adaptors, thread-on spill containers, fill and vapor adaptors, TC-400 torque cap for pipe nipples and threaded riser adaptors as per EVR requirements. The 61SA-TOOL includes provisions for the use of a torque wrench to facilitate accurate installation and testing.

Listings and Certifications



Look for this label for authentic OPW EVR Approved products.
OPW 61VSA Series Adaptors are EVR Approved for E85



OPW 1611 Series Vapor Recovery Adaptor

The OPW 1611AV and 1611AVB are popped adaptors, designed to mate with a vapor recovery elbow, for returning gasoline vapor to the tank truck during a fuel delivery to an underground tank.

Materials

Body: Clear anodized aluminum or cast bronze

Stem: Chrome-plated steel

Stem Guide: Acetal resin

Spring: Stainless steel

Gasket: Nitrile



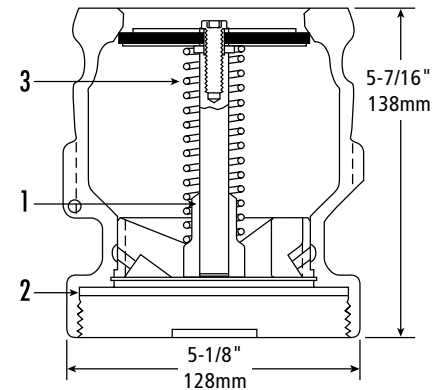
1611AV 3" x 4"
(76 x 102mm)

Ordering Specifications

| Product # | Elbow Size | | Riser Thread | | Body Material | | |
|--------------|------------|----|--------------|-----|---------------|------|-------------------------|
| | in. | mm | in. | mm | lbs. | kg | |
| 1611AV-1605 | 3 | 76 | 3 | 76 | 2.91 | 1.32 | Clear Anodized Aluminum |
| 1611AV-1620 | 3 | 76 | 4 | 102 | 3.25 | 1.48 | Clear Anodized Aluminum |
| 1611AVB-1625 | 3 | 76 | 4 | 102 | 7.97 | 3.62 | Cast Bronze |

Replacement Parts

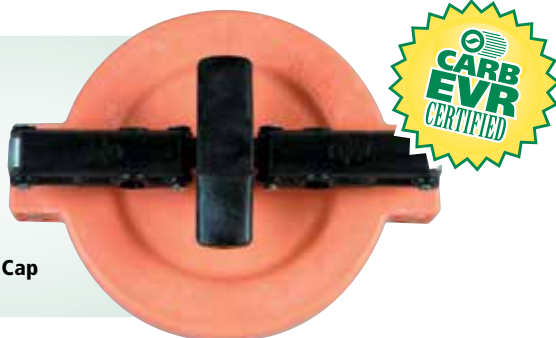
| Key | Part # | Description |
|------------------------------------|--------------------|---|
| 1 | C02642M | Bridge Guide |
| Not Shown | H15294M | Screw (3") (76mm) |
| 2 | H04145M H04150M | Gasket (3") (76mm) Gasket (3" x 4") (76 x 102mm) |
| 3 | H08989M | Spring |
| 61VSA-KIT Complete Replacement Kit | | |



Materials

Body: Duratuff®
Pins: Stainless steel
Links: Duratuff®
Gasket: Nitrile
Color: Orange

1711T Cap

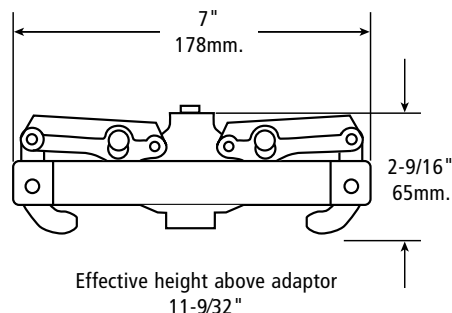


Ordering Specifications

| Product # | in. | mm | lbs. | kg |
|----------------|-----|----|------|-----|
| 1711T-7085-EVR | 3 | 76 | 1.1 | .50 |

Replacement Parts

| Part # | Description |
|---------|----------------|
| H10886M | Nitrile Gasket |



OPW Stage I Vapor Recovery Caps

OPW 1711T

The OPW 1711T Vapor Recovery Cap is for use with the OPW 1611AV, 61VSA, 1611AVB and 1611VR Adaptors. The 1711T is installed on the vapor recovery adaptor, when not in use, to prevent vapors from escaping and to prevent water, dust and debris from entering the tank. Constructed of Duratuff® to help prevent corrosion, the OPW 1711T will couple to Civacon/OPW 4" Kamloks, and features a center post that allows an even distribution of force when coupling to the adaptor. The 1711T can be locked with a padlock.

Materials

Cap: Cast zinc alloy (powder-coated orange)
Lever: Ductile iron
Gasket: Nitrile

1711LPC Cap



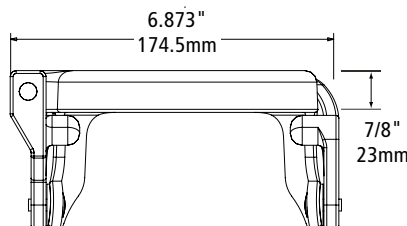
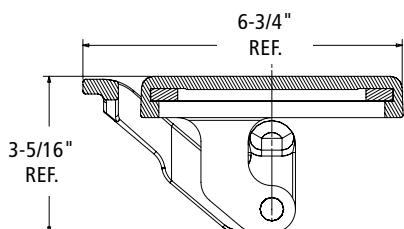
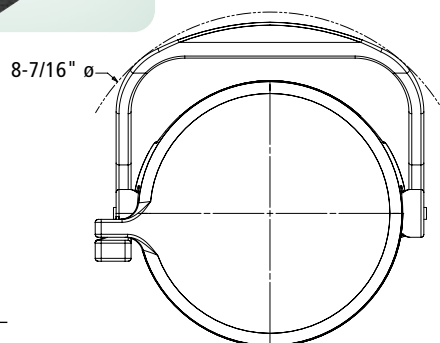
Effective height above adaptor 1/2"

Ordering Specifications

| Product # | in. | mm | lbs. | kg |
|--------------|-----|----|------|------|
| 1711LPC-0300 | 3 | 76 | 3.5 | 1.59 |

Replacement Parts

| Part # | Description |
|---------|----------------|
| H15005M | Nitrile Gasket |



OPW 1711LPC Low Profile Vapor Cap

The OPW 1711LPC Low Profile Top-Seal Vapor Cap is designed for tight installations where the clearance between the top of the vapor adaptor and the underside of the spill container or manhole cover is limited. The rugged iron lever provides a positive cam-action that seats the cap firmly in the adaptor groove for a water and vapor-tight seal. When engaged, the lockable cap adds only 1/2" to the final height of the adaptor. The cap is powder-coated API Orange to signify vapor recovery. The 1711LPC can be used with the OPW 3" 1611AV, 1611AVB and 61VSA series vapor adaptors.

Listings and Certifications



Look for this label for authentic OPW EVR Approved products.
OPW 1711 Series Caps are EVR Approved for E85



OPW Monitoring Well/Pipe/Probe Caps

Monitoring Probe Caps are installed on tank riser pipes to help prevent vapors from escaping or water from entering the tank. Monitoring Probe Caps include a wire grommet fitting to accommodate the electronic tank gauge probe.

OPW 62M Monitor Probe Cap & Adaptor Kit

The 62M Monitoring Probe & Adaptor Kit includes a 4" side-sealing adaptor, 4" side-sealing cap (tapped), and a 3/8" or 1/2" wire grommet to secure the cable from an electronic tank gauge probe in the tank riser pipe. A bracket, located on the underside of the cap, is provided to install a tension wire to relieve strain on probe cables. The 62M is gasketed to seal against water and debris entering, or vapors from escaping the tank. The cap includes provisions for a padlock to secure entry.

OPW 116M

The OPW 116M Monitor Probe Cap is a standard 116 4" threaded pipe cap, drilled and tapped to accept a 3/8" or 1/2" wire grommet to secure an electronic tank gauge probe in a tank riser pipe. The 116M is gasketed for vapor and watertight service.

OPW 116

The OPW 116 Pipe Cap threads onto 4" riser pipes and provides access to ball float extractor fittings and underground storage tank bung openings. The 116 is constructed of composite Duratuff® to prevent rusting or corroding of steel riser pipes.

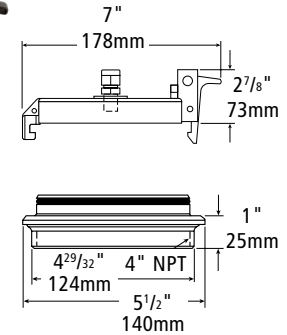
62M Monitor Probe Cap

Body: Cast aluminum

Cap: Cast aluminum

Seals: Nitrile

Latch: Duratuff®



62M-MA Monitor Probe Cap

Body: Anodized aluminum

Cap: Anodized aluminum

E85 EVR Approved



Ordering Specifications

| Product # | Body | Cap | Grommet | | Riser Thread | | lbs. | kg | |
|-----------|--------------------|--------|---------|-----|--------------|-----|------|-----|-------------------------------------|
| | | | in. | mm | in. | mm | | | |
| 62M-0375 | Alum. | Alum. | 3/8 | 9.5 | 4 | 102 | 1.3 | .59 | Accepts .069" - .178" diameter wire |
| 62M-0500 | Alum. | Alum. | 1/2 | 13 | 4 | 102 | 1.3 | .59 | Accepts .170" - .470" diameter wire |
| 62M-MA | Nickel | Nickel | 3/8 | 9.5 | 4 | 102 | 1.3 | .59 | Accepts .170" - .470" diameter wire |
| 201478 | Alum. | Alum. | N/A | N/A | 4 | 102 | 1.3 | .59 | No Grommet |
| H09039M | Replacement Gasket | | | | | | | | |

Materials

OPW 116M

Body: 4" Duratuff®

Cross bar: Zinc-plated steel



116M Cap

OPW 116

Body: 4" Duratuff®

Seal: Nitrile

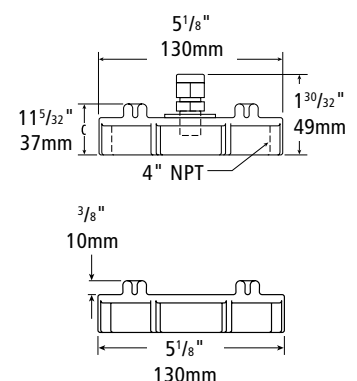
116-7085



Ordering Specifications

OPW 116M

| Product # | Description | Riser Thread | lbs. | kg |
|-----------|-------------------------------------|--------------|------|-----|
| 116M-0375 | 3/8" Grommet | 4" (102mm) | .45 | .2 |
| | Accepts .069" - .178" diameter wire | | | |
| 116M-0500 | 1/2" Grommet | 4" (102mm) | .45 | .2 |
| | Accepts .170" - .470" diameter wire | | | |
| H11199M | Replacement Gasket | | | |
| OPW 116 | | | | |
| 116-7085 | | | .40 | .18 |



62M Series Instruction Sheet Order Number: **H14491PA**

Materials

Cap: Duratuff®

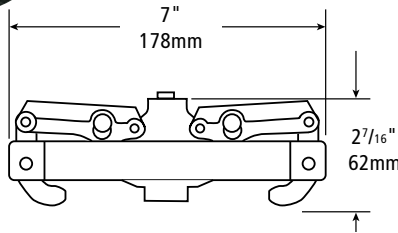
Adaptor Ring:
Cast aluminum

634TTM



Ordering Specifications

| Product # | lbs. | kg |
|-------------|------|-----|
| 634TTM-7087 | 1.42 | .65 |



OPW Monitoring Well / Pipe Caps

OPW 634TTM Well Cap Kit

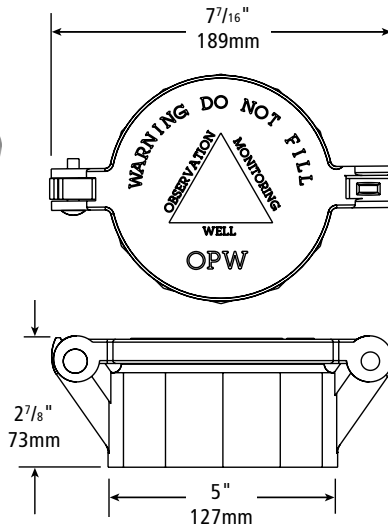
The OPW 634TTM Well Cap Kit is designed to install onto a 4" slotted PVC monitoring well. The cap is marked "Do Not Fill" to clearly identify the monitoring well. A cast aluminum adaptor ring is set-screwed to the top of the slotted PVC well, and the cap mates with the ring. The 634TTM can be locked with a padlock or a wire seal.

62PMC



Ordering Specifications

| Product # | Description | lbs. | kg |
|------------|----------------|------|-----|
| 62PMC-0400 | Monitoring Cap | 1.3 | .59 |



OPW 62PMC Lockable Monitoring Cap

The OPW 62PMC is designed to thread or solvent-weld to a 61SPVC 4" slotted PVC monitoring well pipe. The 62PMC is constructed of durable PVC with a stainless steel hinge pin for resistance to rust and corrosion. An API warning statement, "Monitoring Well...Do Not Fill," is permanently molded into the cap. The 62PMC can be locked with a long-shank padlock.

61SPVC



OPW 61SPVC Slotted PVC Pipe

The OPW 61SPVC Slotted PVC Pipe is designed for monitoring well applications. The 61SPVC is constructed of durable schedule 40 PVC pipe, PVC bottom plug with slot thickness of .020".

Ordering Specifications

| Product # | Description | Length | | Slotted Section | | Weight | |
|--------------|---------------------------|--------|------|-----------------|------|--------|------|
| | | ft. | m | ft. | m | lbs. | kg |
| 61SPVC-4000 | 4" x 13' Slotted PVC Pipe | 13 | 3.96 | 10 | 3.04 | 26.5 | 12.0 |
| 61SPVC-4015 | 4" x 15' Slotted PVC Pipe | 15 | 4.97 | 12 | 3.65 | 30.5 | 13.8 |
| 61SPVC-4020* | 4" x 20' Slotted PVC Pipe | 20 | 6.09 | 18 | 5.48 | 41.0 | 18.6 |

*20 ft. Models come in two (2) 10 ft. pieces.

634TTM-7087 Instruction Sheet Order Number: **H10772PA**

OPW Loose-Fill Pipe Cap Assemblies

Loose-Fill Pipe Cap Assemblies are installed in spill containment manholes on fill riser pipes from an underground fuel storage tank. They are used when a tight-fill connection is not required.

OPW 83

The OPW 83 Fill Cap Assembly threads onto the fillpipe of an underground or aboveground tank. The screw-on cap is gasketed to ensure a tight seal against air, water, dust and debris. The 83 can be locked with a padlock or wire seal.

Materials

Body: ZA alloy
Cap: Cast iron
Gasket: Nitrile



83 Fill Cap

Ordering Specifications

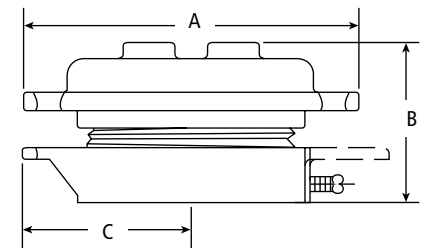
| Product # | Riser Thread | | | |
|-----------|--------------|----|------|------|
| | in. | mm | lbs. | kg |
| 83-0022 | 2 | 51 | 2.46 | 1.12 |

Replacement Parts

| Part # | in. | mm | Description |
|---------|-----|----|-------------|
| H04898M | 2 | 51 | Cap |
| H01608M | 2 | 51 | Gasket |

Dimensions

| | 2" (51mm) | |
|---|---------------------------------|-----|
| | in. | mm |
| A | 4 ⁵ / ₈ | 118 |
| B | 2 ⁷ / ₁₆ | 62 |
| C | 2 ¹¹ / ₃₂ | 60 |



OPW 269 Sanitary Tank Hatch

The OPW 269 Sanitary Tank Hatch threads onto the fill pipe of an underground sanitary waste disposal tank. The 269 is foot-operated and quick-opening/closing for clean emptying of sanitary waste from RVs, campers and travel trailers. The non-recessed design provides straight-through flow to eliminate entrapment of waste materials.

Materials

Body: Coated ductile iron
Cap: Zinc

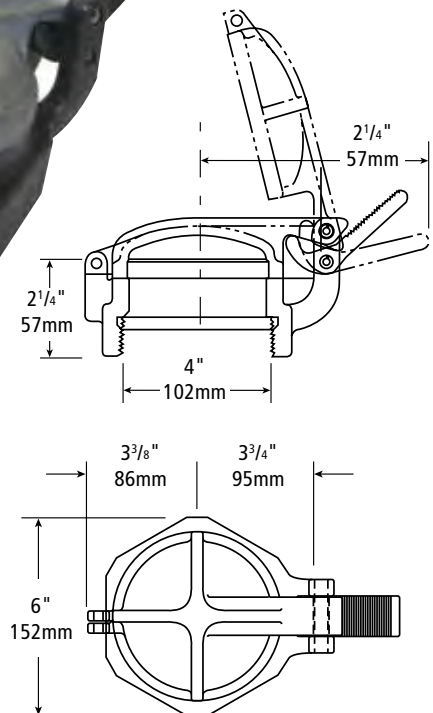


Ordering Specifications

| Product # | Riser Thread | | | |
|-----------|--------------|-----|-------|------|
| | in. | mm | lbs. | kg |
| 269-0085 | 4 | 102 | 10.92 | 4.91 |

Replacement Parts

| Part # | Description |
|----------|-------------|
| D00800B | Cap |
| H05783DI | Treadles |
| H05784M | Pin |

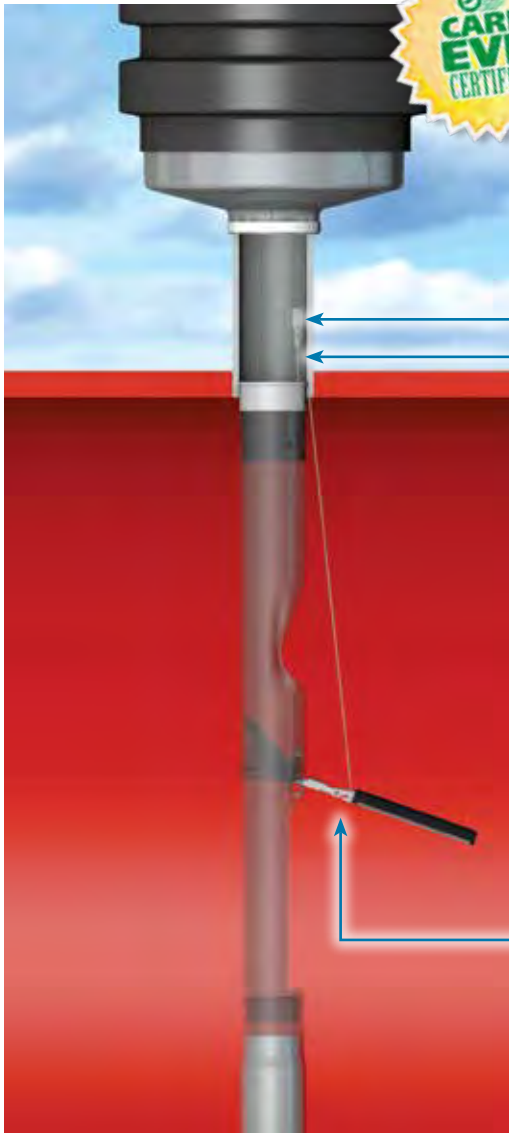


Testable 7150 Overfill Prevention Valve

Patent Pending



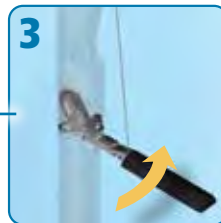
Testing & Verification Easy as 1·2·3



Loosen test plug



Lift float with cable to simulate fill



Validate proper poppet operation

The OPW Testable 7150 helps you be in compliance with the NEW EPA Regulations

- ◆ The Only UST Overfill Prevention Valve that is testable without removal from the tank
- ◆ A testable feature is attached to a sealed plug in the inlet Adaptor
- ◆ The plug is easily accessed with a standard socket extension
- ◆ Attached to the extension, the testable feature can be raised and lowered, allowing the user to inspect the valve operation from the inside of the tube
- ◆ The plug is then easily reinstalled to the inlet Adaptor from grade
- ◆ No fill components, overfill valves, or vapor tight seals have to be removed - avoids compromising vapor tight compliance
- ◆ The Testable 7150 uses the same industry leading overfill prevention technology for strong vapor tight compliance
- ◆ B100 Compatible (ULC)

NOTE: The OPW 7150 is designed for use on tight-fill gravity drop applications only. Do not use for pressure fill applications.

Ordering Specifications

| Product # | Description | A- Upper Tube Length | | B- Lower Tube Length | | C- Overall Length | | Max. Riser Length | | Max. Nominal Tank Dia. | | Max. Actual Tank Dia. | | Weight | |
|-------------|--|----------------------|-----|----------------------|-----|---------------------------------|-----|---------------------------------|-----|------------------------|-----|-----------------------|-----|--------|----|
| | | in. | m | in. | m | in. | m | in. | m | in. | m | in. | m | lbs. | kg |
| 7150-400CT* | Testable Vapor-Tight Overfill Valve, 5 Ft. Bury, 8 Foot Tank | 60 | 1.5 | 83 | 2.1 | 154 ³ / ₄ | 3.9 | 53 ¹ / ₂ | 1.4 | 96 | 2.4 | 107 | 2.7 | 16 | 7 |
| 7150-410CT* | Testable Vapor-Tight Overfill Valve, 10 Ft. Bury, 10 Foot Tank | 120 | 3.1 | 102 | 2.6 | 234 ³ / ₄ | 5.9 | 113 ¹ / ₂ | 2.9 | 120 | 3.1 | 126 | 3.2 | 25 | 11 |
| 7150-420CT* | Testable Vapor-Tight Overfill Valve, 10 Ft. Bury, 12 Foot Tank | 120 | 3.1 | 126 | 3.2 | 258 ³ / ₄ | 6.5 | 113 ¹ / ₂ | 2.9 | 144 | 3.7 | 150 | 3.8 | 26 | 12 |
| 206740-Kit | Replacement Cable Kit | | | | | | | | | | | | | | |
| 206741-Kit | Replacement Inlet Tube w/ 206740 Cable Kit | | | | | | | | | | | | | | |

* ULC B100 Compatible

Listings and Certifications



Look for this label for authentic OPW EVR Approved products.

Patent Pending

Testable 71SO

Overfill Prevention Valve

**Are you Compliant
with the New EPA
Overfill Valve Test
Requirements?**



**Now you can be, with the
New OPW Testable 71SO
Overfill Prevention Valve**

*The easiest, most affordable way
to ensure overfill compliance*

- ◆ UST systems (drop tube, overfill prevention valve, spill containers) must be tested for vapor tightness
- ◆ Overfill prevention valves shut off devices must be manually inspected
- ◆ OPW offers the only overfill prevention valve that can be tested without removal from the tank – test in 60 seconds versus 60 minutes per tank

Overfill Prevention and Venting Equipment

7150 Testable Overfill Valve

The OPW new patent-pending Testable 7150-T Overfill Prevention Valve is the easiest, quickest and most cost efficient way to ensure that your overfill valves will operate when called upon - verifiable without removing them from the tanks. The OPW 7150-T Testable Overfill Prevention Valve is the first UST Overfill Prevention Valve that is testable from the surface without removal from the tank.

6150 & 7150 Overfill Prevention Valves

The OPW 6150 and 7150 vapor-tight Overfill Prevention Valves are two-stage shut-off valves designed to prevent the overfill of underground storage tanks by providing a positive shut-off of product delivery. Models of the 6150 and 7150 are available to meet virtually any UST application, including two-point, coaxial, poppeted coaxial and remote fill. The 7150 vapor-tight model is designed for enhanced vapor recovery (EVR) applications. Both the 6150 and 7150 are designed for use on tight-fill gravity drop applications only, and can be installed in the fill riser of both new and existing underground storage tanks.

Ball Float Vent Valves and Extractor Fittings

OPW Ball Float Vent Valves protrude into underground storage tanks from the Stage I vapor return riser pipe. As the tank becomes full during a product drop, the ball seats – restricting the flow of vapors back to the transport truck or through the tank vent. As the vapors are compressed in the tank, product flow into the tank is severely restricted.

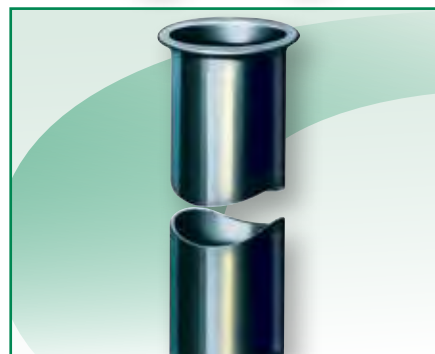
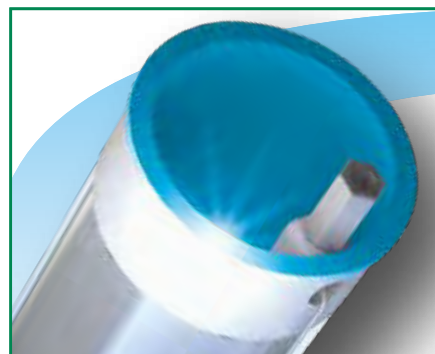
OPW ball floats are mounted in OPW extractor fittings to maintain access through grade-level manholes.

Drop Tubes and Accessories

OPW drop tubes are installed inside tank fill risers to prevent fuel from contacting riser joints. Drop tubes extend close to the bottom of the tank to minimize turbulence and vapor production. Tank bottom protectors are installed on the bottom of drop tubes to prevent tank erosion at the fill point.

Pressure Vacuum Vents and Adaptors

Pressure Vacuum Vents are installed on the top of vent pipes from underground or aboveground fuel storage tanks. The vent cap and internal wire screen are designed to protect the tank vent lines against intrusion and blockage from water, debris or insects. A normally closed poppet in the valve opens at a predetermined pressure or vacuum setting to allow the tank to vent.



OPW 7150 Overfill Prevention Valves

The CARB-certified OPW 7150 vapor-tight Overfill Prevention Valve is designed to prevent the overfill of underground storage tanks by providing a positive shut-off of product delivery. The shut-off valve is an integral part of the drop tube used for gravity filling. The OPW 7150 allows easy installation (without breaking concrete) and requires no special manholes.

The OPW 7150 is a vapor-tight two-stage shut-off valve. When the liquid level rises to about 95% of tank capacity, the valve mechanism is released, closing automatically with the flow. This reduces the flow rate to approximately 5 gpm through a bypass valve. The operator may then stop the filling process and disconnect and drain the delivery hose. As long as the liquid exceeds the 95% level, the valve will close automatically each time delivery is attempted.

If the delivery is not stopped and the liquid rises to about 98% of tank capacity, the bypass valve closes completely. No additional liquid can flow into the tank until the level drops below a reset point.

NOTE: The 7150 Overfill Prevention Valve can be adjusted to shutoff at any desired tank capacity. Please contact the Authority Having Jurisdiction (AHJ) and review local, state, and national codes to determine the regulatory requirements governing shut-off capacity in your region, as well as take into account other considerations such as extreme tank tilt. In all cases, the upper tube must protrude into the tank at least 6 1/2" to ensure that the valve can shut off flow into the tank completely before the top of the tank is wetted as per EPA requirements.

7150 Instruction Sheet Order Number: **H15524PA**

Listings and Certifications



Materials

Valve Body: Cast aluminum
Float: Nitrile rubber, closed cell foam
Valve: Aluminum
Seals: Viton®
Upper & lower Drop Tube: Aluminum
Plastic parts: Acetal
Hardware: Stainless steel

Features

- ◆ **Simple, Easy and Quick Installation** – no excavation or special manholes required.
- ◆ **Economical** – costs a fraction of expensive, complicated and difficult-to-install valves.
- ◆ **Furnished Complete** – supplied with new upper and lower drop tubes, mounting hardware and thorough instructions for quick job site time.
- ◆ **Completely Automatic Operation** – no prechecks to perform, no resets and no overrides to be broken or abused.
- ◆ **No Pressurization of the Tank** – operates directly from liquid level.
- ◆ **Will Accept a Dipstick for Gauging**



Important

In order to prevent product spillage from the Underground Storage Tank (UST), properly maintained delivery equipment and a proper connection at the tight-fill adaptor are essential. Delivery personnel should be managed and trained to inspect delivery elbows and hoses for damaged and missing parts. They should always make certain there is a positive connection between the adaptor and elbow. If delivery equipment is not properly maintained, or the elbow is not securely coupled to the adaptor, a serious spill may result when the OPW 7150 closes, causing a hazard and environmental contamination.

NOTE: The OPW 7150 is designed for use on tight-fill gravity drop applications only. Do not use for pressure fill applications.

- ◆ **Retrofits Directly** – for both new and existing tanks with 4" fill risers.
- ◆ **Quick Drain Feature** – automatically drains hose when head pressure is relieved.
- ◆ **Best Flow Rate in The Industry***

* OPW Test Lab results

Advantages of Overfill Prevention Compared to Overfill Warning Systems:

- ◆ **Completely Automatic Operation** – does not rely on the alertness or speed of response of the delivery attendant for certainty of overfill prevention.
- ◆ **Keeps the Top of UST "Dry," per EPA Requirements** – eliminating possible leaks at loose bung fittings and the need for double containment on vent lines.
- ◆ **Does Not Rely on Pressure in the UST to Stop Flow** – allowing faster fill times and reducing spill risk.
- ◆ **Speeds Delivery Operations** – product flows unimpeded into the tank until the hose "kick" that accompanies the valve shut-off provides a clear signal that the liquid has reached the shut-off level.
- ◆ **Simple and Inexpensive Installation** – in both two-point and coaxial fill applications, no additional excavation, manholes or vent piping are required.



Look for this label for authentic OPW EVR Approved products.
OPW 7150M is EVR Approved for E85

Raising The Standard In Overfill Prevention

From the company that brought you the industry standard OPW 6150, OPW raises the standard with the introduction of the **7150 Overfill Prevention Valve** – breakthrough innovation that takes overfill prevention to a whole new level of overfill perfection.

- **Eliminates curing issues due to hot or cold temperatures**
- **Easier, quicker, installation**
- **Higher quality, more reliable installation**
- **Lower costs**
- **Greater protection against fugitive emissions and pressure decay**
- **Fastest flow rate in the industry**

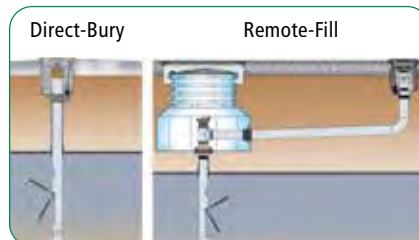
The new 7150 is a two-stage, positive shut-off valve, providing completely automatic operation with no pre-checks to perform, no resets, and no overrides to be broken or abused. The valve closes when the tank level rises to 95% capacity and provides a special bypass valve so the tank can be filled to a maximum capacity of 98%. The 7150 is available for direct-bury and remote applications.



All Vapor-Tight Overfill Valves are CARB EVR Certified



No Epoxy Sealants Required!



Replacement Parts

| Part # | Description |
|------------|----------------------------|
| 6150K-0001 | Replacement Float Kit |
| H11931M | Drop Tube Seal |
| H14840M | Lower Tube Seal |
| C05117 | Lower Tube |
| C03899M | Non-Vapor-Tight Inlet Tube |
| 7150-Inlet | Vapor-Tight Inlet Kit |

7150 Ordering Specifications

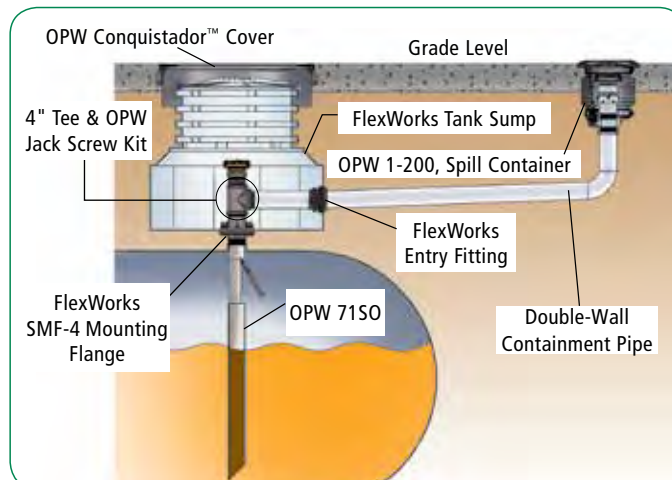
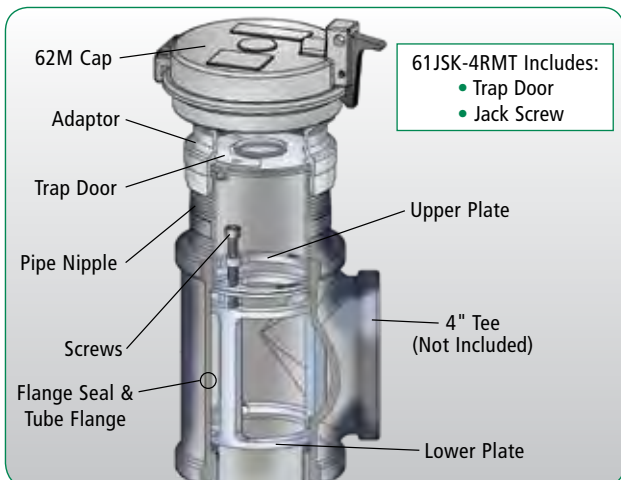
| Product # | Description | Bury Depth | | Tank Diameter | | Upper Tube Length | | Lower Tube Length | | Overall Length | | Max. Riser Length | | Max. Nominal Tank Dia. | | Max. Actual Tank Dia. | | Weight | |
|-------------|--|------------|-----|---------------|-----|-------------------|-----|-------------------|-----|---------------------------------|-----|---------------------------------|-----|------------------------|-----|-----------------------|-----|--------|------|
| | | ft. | m | ft. | m | in. | m | in. | m | in. | m | in. | m | in. | m | in. | m | lbs. | kg |
| 7150-400B* | Vapor-Tight Overfill Valve | 5 | 1.5 | 8 | 2.4 | 60 | 1.5 | 83 | 2.1 | 155 ³ / ₄ | 3.9 | 53 ¹ / ₂ | 1.4 | 96 | 2.4 | 107 | 2.7 | 16 | 7 |
| 7150-410B* | Vapor-Tight Overfill Valve | 10 | 3.0 | 10 | 3.0 | 120 | 3.1 | 102 | 2.6 | 234 ³ / ₄ | 5.9 | 113 ¹ / ₂ | 2.9 | 120 | 3.1 | 126 | 3.2 | 25 | 11 |
| 7150-420B* | Vapor-Tight Overfill Valve | 10 | 3.0 | 12 | 3.6 | 120 | 3.1 | 126 | 3.2 | 258 ³ / ₄ | 6.5 | 113 ¹ / ₂ | 2.9 | 144 | 3.7 | 150 | 3.8 | 26 | 12 |
| 7150-400C* | Vapor-Tight Overfill Valve | 5 | 1.5 | 8 | 2.4 | 60 | 1.5 | 83 | 2.1 | 155 ³ / ₄ | 3.9 | 53 ¹ / ₂ | 1.4 | 96 | 2.4 | 107 | 2.7 | 16 | 7 |
| 7150-410C* | Vapor-Tight Overfill Valve | 10 | 3.0 | 10 | 3.0 | 120 | 3.1 | 102 | 2.6 | 234 ³ / ₄ | 5.9 | 113 ¹ / ₂ | 2.9 | 120 | 3.1 | 126 | 3.2 | 25 | 11 |
| 7150-420C* | Vapor-Tight Overfill Valve | 10 | 3.0 | 12 | 3.6 | 120 | 3.1 | 126 | 3.2 | 258 ³ / ₄ | 6.5 | 113 ¹ / ₂ | 2.9 | 144 | 3.7 | 150 | 3.8 | 26 | 12 |
| 7150-4000 | Non Vapor-tight Overfill Valve | 5 | 1.5 | 8 | 2.4 | 60 | 1.5 | 83 | 2.1 | 155 ³ / ₄ | 3.9 | 53 ¹ / ₂ | 1.4 | 96 | 2.4 | 107 | 2.7 | 16 | 7 |
| 7150-4010 | Non Vapor-tight Overfill Valve | 10 | 3.0 | 10 | 3.0 | 120 | 3.1 | 102 | 2.6 | 234 ³ / ₄ | 5.9 | 113 ¹ / ₂ | 2.9 | 120 | 3.1 | 126 | 3.2 | 25 | 11 |
| 7150M-412C | E85 Vapor-tight Overfill Valve | 10 | 3.0 | 10 | 3.0 | 120 | 3.1 | 102 | 2.6 | 234 ³ / ₄ | 5.9 | 113 ¹ / ₂ | 2.9 | 120 | 3.1 | 126 | 3.2 | 38 | 17.3 |
| 7150-TOOLCT | 7150 Installation Tool | | | | | | | | | | | | | | | | | 2.5 | 1 |
| 61JSK-4RMT | Jack Screw Kit For Vapor-Tight Remote Applications | | | | | | | | | | | | | | | | | 1.5 | 0.7 |
| 61JSK-4410 | Jack Screw Kit For Composite Base Spill Bucketst | | | | | | | | | | | | | | | | | 1 | 0.5 |
| 61JSK-44CB | Jack Screw Kit For Cast Iron Base Spill Buckets | | | | | | | | | | | | | | | | | 1 | 0.5 |
| 71JSK-4RMT | E85 Jack Screw for Remote-Fill Applications | | | | | | | | | | | | | | | | | 1 | 0.5 |
| 71JSK-44MA | E85 Jack Screw for Direct-Fill Applications | | | | | | | | | | | | | | | | | 1.5 | 0.7 |

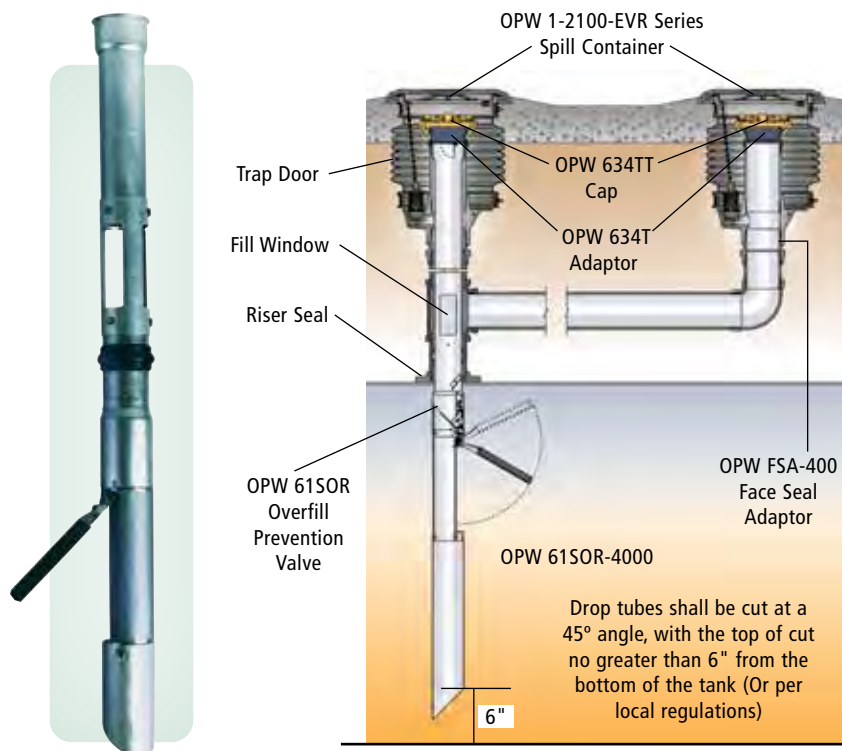
61JSK-4410 AND 61JSK-44CB Instruction Sheet Order Number: **H15289M**

*ULC B100 Compatible

7150 Vapor-Tight Remote Fill

The OPW Vapor-Tight Remote Fill is designed for two-point vapor-tight remote-fill applications, where the fill point is not directly over the UST. A CARB approved vapor-tight 7150 overfill valve is installed in the sump through a riser pipe directly over the tank.



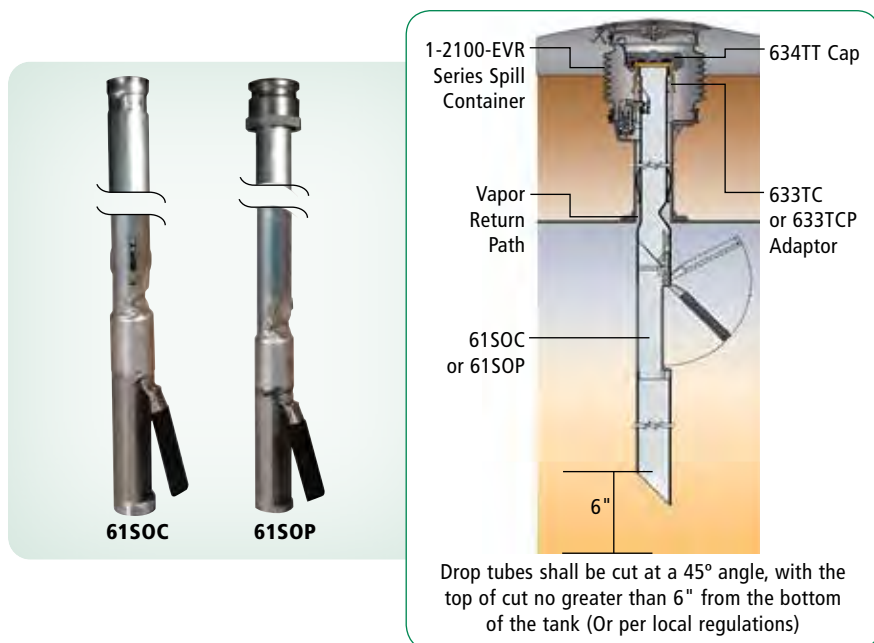


61SOR Remote-Fill

The OPW 61SOR is designed for two-point remote-fill applications, where the fill point is not directly over the UST. The valve is installed in the tank through a riser pipe directly over the tank. A window in the drop tube is aligned with the entrance of the fill pipe from the remote-fill location to allow product to flow into the drop tube and down through the valve. A riser seal prevents product from flowing into the tank from outside the drop tube. A "trap door" assembly installed in the riser above the tank provides access for a gauging stick. Trap door, adaptor and cap are included with 61SOR.

61SOC Coaxial

The OPW 61SOC is used for coaxial fill applications, tanks equipped with a single product/vapor return connection. The 61SOC replaces the standard coaxial fill drop tube in a 4" riser fill pipe.



61SO-4000 Series Instruction Sheet Order Number: **H11764M**

61SOC Coaxial Fill Tube Instruction Sheet Order Number: **C03634PA**

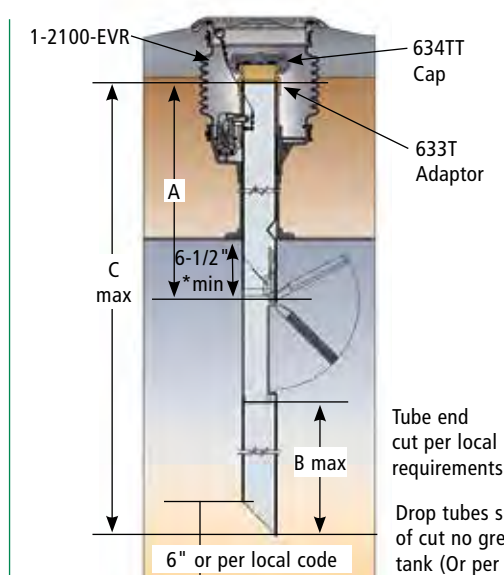
61SOR Remote Fill Tube Instruction Sheet Order Number: **H11964M**

Typical Application Assembly

Installation schematic typical; exact dimensions will vary with tank configuration.

* From inside wall of tank to bottom of upper tube

61SOK Float Kit Instruction Sheet Order Number: **H11403PA**



Replacement Parts

| Part # | Description |
|------------|------------------------------------|
| 61SOK-0001 | Float Kit |
| C03899M | Two-Point Inlet Tube |
| C03632M | Coaxial Inlet Tube |
| D01756 | Inlet Tube/Adaptor Assy. for 61SOP |
| H11931M | Drop Tube O-Ring |
| C03749 | Trap Door Assy. (Remote) |

Tube end cut per local requirements

Drop tubes shall be cut at a 45° angle, with the top of cut no greater than 6" from the bottom of the tank (Or per local regulations)

Ordering Specifications

| Product/ Suffix # | Description | A-Upper Tube Length | | B-Lower Tube Length | | C-Overall Length | | Max. Riser Length | | Max. Nominal Tank Dia. | | Max. Actual Tank Dia. | | Weight | |
|-------------------|--------------------|---------------------|-----|---------------------|-----|---------------------------------|-----|---------------------------------|-----|------------------------|-----|-----------------------|-----|--------|----|
| | | in. | m | in. | m | in. | m | in. | m | in. | m | in. | m | lbs. | kg |
| 61SOK-4001 | Coaxial | 60 | 1.5 | 83 | 2.1 | 154 ³ / ₈ | 3.9 | 53 ¹ / ₂ | 1.4 | 96 | 2.4 | 107 | 2.7 | 16 | 7 |
| 61SOK-4011 | Coaxial | 120 | 3.1 | 102 | 2.6 | 233 ³ / ₈ | 5.9 | 113 ¹ / ₂ | 2.9 | 120 | 3.1 | 126 | 3.2 | 25 | 11 |
| 61SOP-4002 | CARB, pop. coaxial | 60 | 1.5 | 83 | 2.1 | 154 ³ / ₈ | 3.9 | 53 ¹ / ₂ | 1.4 | 96 | 2.4 | 107 | 2.7 | 20 | 9 |
| 61SOP-4012 | CARB, pop. coaxial | 108 | 2.7 | 102 | 2.6 | 221 ³ / ₈ | 5.6 | 101 ¹ / ₂ | 2.6 | 120 | 3.1 | 126 | 3.2 | 27 | 12 |
| 61SOR-4000* | Remote | 72 | 1.8 | 83 | 2.1 | 166 ³ / ₈ | 4.2 | 65 ¹ / ₂ | 1.7 | 96 | 2.4 | 107 | 2.7 | 19 | 9 |

*Remote fill applications

Materials

Body: Duragard®
Coated Cast Iron

Cage Assembly: ZA12 Zinc/Alloy

(TEE)



Features

- ◆ **Duragard® Coated Cast Iron Body** – helps prevent rust and corrosion for long service life
- ◆ **ZA12 Zinc/Alloy Cage Assembly** – eases installation and removal of ball float vent valves and test plugs
- ◆ **Precision Machined Threads** – help prevent cross threading of the ball float or tank riser pipe
- ◆ **Compatible with 85% Ethanol (E85) or Methanol (M85)**



CROSS



233 VP Test Plug



(H11930 2" CAGE SA)

Ordering Specifications

| Product # | Top Thread | | Outlet Thread | | Bottom Thread | | Weight | |
|-------------------|------------|-----|---------------|---------|---------------|----------|--------|------|
| | in. | mm | in. | mm | in. | mm | lbs. | kg |
| 233-4420 (Tee)* | 4 | 102 | 2 | 51 | 4 | 102 Ext. | 13.89 | 6.31 |
| 233-4430 (Tee)* | 4 | 102 | 3 | 76 | 4 | 102 Ext. | 14.06 | 6.39 |
| 233-4422 (Cross)* | 4 | 102 | 2 x 2 | 51 x 51 | 4 | 102 Ext. | 15.18 | 6.90 |
| 233-4433 (Cross)* | 4 | 102 | 3 x 3 | 76 x 76 | 4 | 102 Ext. | 15.54 | 7.06 |
| 233-4432 (Cross)* | 4 | 102 | 3 x 2 | 76 x 51 | 4 | 102 Ext. | 17.29 | 7.86 |

* Without cage assembly

NOTE: Use OPW89 Extractor Wrenches (See page 119)

Replacement Parts

OPW 233V and 233VM

| Part # | Description |
|---------|-----------------------|
| H11930 | 2" Cage SA |
| H14578M | O-Ring for 233VP-6046 |

Listings and Certifications



Look for this label for authentic OPW EVR Approved products.

OPW 233 Series Extractor Fittings are EVR Approved for E85

OPW 233 Series Extractor Fittings

OPW 233 Series Extractor Fittings thread into 4 NPT openings on underground storage tanks. A 4" riser pipe threads into the top of the 233 for use in Stage I Vapor Recovery or to access a ball float. The 233 Extractor Fittings have threaded single-outlet connections for attaching tank vent lines or multiple outlets used to manifold tank vents or accommodate Stage II vapor return lines from dispensers. Internal threads on the 233 are designed to install a ball float or test plug in the extractor.

OPW 233

The OPW 233 Extractor Fittings are designed for use with all OPW 53VML Ball Float Vent Valves that include an extractor cage (the OPW 233 does not include an extractor cage). The 233 Extractor incorporates either single-outlet or multiple-outlet threads.

OPW 233VP Extractor Test Plug

The OPW 233VP Extractor Fitting Test Plug is used on all OPW 233 Series Extractor Fittings. The 233VP incorporates an O-Ring above the threads (on the plug) to isolate the tank from the vent piping systems during a tank test.

OPW 53VML (30MV) Ball Float Vent Valves

The OPW 53VML Ball Float Vent Valves protrude into underground storage tanks from OPW 233 Series Extractor Fittings at the Stage I vapor return riser pipe or tank vent line. During a product delivery, as the tank level rises, a counterweight stainless steel ball seats on the valve body and restricts flow of vapors back to the transport truck. As the vapors become compressed in the tank (ullage), product flow into the tank is severely restricted. The 53VML Series Ball Float meets the U.S. EPA 90% requirement for product flow restriction into underground storage tanks. The 53VML-0060 and 53VML-0065 are designed as "back-up" overfill protection for overfill prevention valves, and to minimize product mixing with underground manifold vent lines.

Ordering Specifications and Dimensions

| Product # | Pipe Dia. | Length (A) | | Weight | |
|------------|-----------|-------------------------------|-----|--------|-----|
| | | in. | mm | lbs. | kg |
| 53VML-0060 | 2* | 6 ¹ / ₈ | 157 | 2 | 0.9 |
| 53VML-2070 | 2 | 7 | 178 | 3 | 1.5 |
| 53VML-0120 | 2 | 12 | 305 | 4 | 1.8 |
| 53VML-0160 | 2 | 16 | 407 | 5 | 2.3 |
| 53VML-0180 | 2 | 18 | 457 | 6 | 2.7 |
| 53VML-3050 | 3 | 5 | 127 | 5 | 2.3 |
| 53VML-3110 | 3 | 11 | 279 | 7.6 | 3.5 |
| 53VML-3120 | 3 | 12 | 305 | 7.7 | 3.5 |

* 1/16" Vapor Flow Orifice

30MV-KIT Ordering Specifications

| Part # | Description |
|----------|-----------------------------------|
| 30MV-KIT | O-Ring 1/16" Brass orifice insert |

Materials

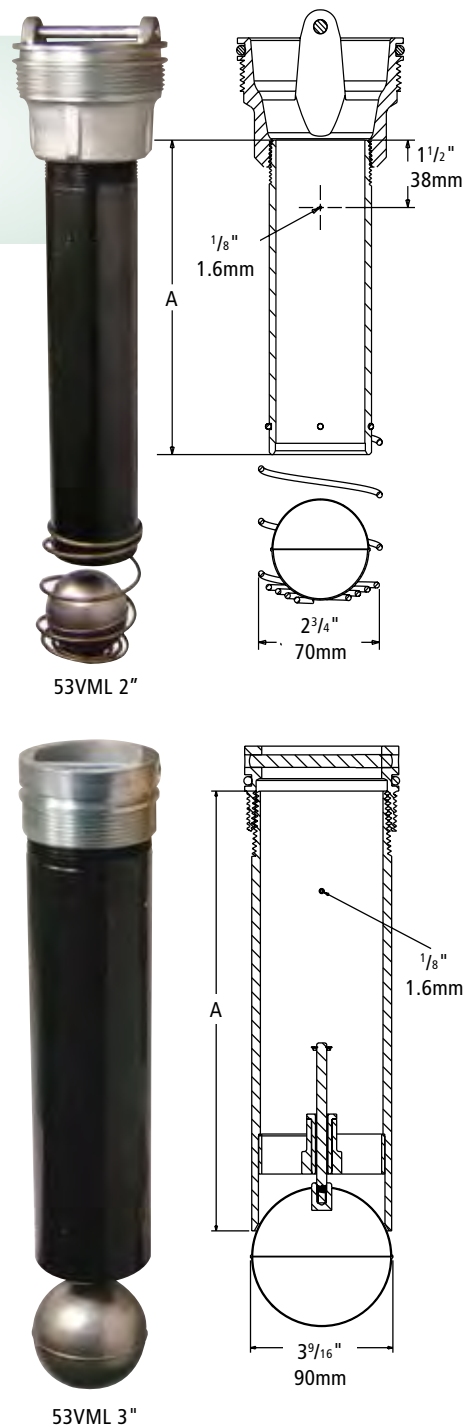
Pipe Nipple: Steel
Coating: Black Duragard®
Basket: Stainless steel
Ball: Stainless steel

Features

- ◆ **Stainless Steel Counterweight Ball Float** – corrosion-resistant for a long service life. Counterweight ensures proper seating of the ball for precision "slow-down" of product flow into the tank
- ◆ **Vapor Flow Orifice** – a "bleed" hole machined into the body of the valve, sized to properly "slow-down" the delivery flow rate
- ◆ **Duragard® Body Coating** – helps prevent rust and corrosion build-up for a smooth seating surface and long service life
- ◆ **Various Body Lengths** – accommodate virtually any size tank
- ◆ **2" and 3" Body Sizes** – 3" size increases vapor flow to reduce product delivery time
- ◆ **Easy Installation, Service and Testing** – both 2" and 3" valves install in OPW 233 Series Extractor Fittings and are easily removed for inspection or tank testing with OPW 89 Extractor Wrench
- ◆ **Compatible with 85% Ethanol (E85) or Methanol (M85)**

Convert your 53VML into the 30MV Ball Float

The 30MV Series ball float has the same function as the 53VML, but allows for higher storage capacity in larger volume tanks. The 30MV meets the U.S. EPA 30-minute warning requirement for product flow restriction in the underground storage tank. Using the Tank Ullage calculation on page 119, convert your desired length 53VML by adding the 30MV-KIT.



53VML/30MV Instruction Sheet
 Order Number: **H14111PA**

Warning OPW Overfill Warning Systems should only be used on submerged pumping systems, not suction pump systems. For special applications, contact OPW Fueling Components. OPW Overfill Warning Systems should only be used on gravity drop systems. DO NOT use where Pump-Off Unloading or coax fills are used.

Specifying the Proper Length 53VML or 30MV Series Ball Float

Step 1: Determine Dimension "X": Consult the tank chart (provided by the tank manufacturer) to determine the distance that corresponds to 10% of the total tank capacity for 53VML or 308 gallons for 30MV.

Step 2: Determine Dimension "Y": Measure the dimension from the inside top of the tank to the top of the 4" threaded tank "bung" fitting.

Step 3: Add measurements "X" and "Y". Then subtract 1/4" and round up to the nearest length ball float.

Tank Ullage Calculator

- ◆ 30 minutes x 5GPM = 150 gallons
- ◆ Ullage compression rate* is 27% after the ball seats
- ◆ 150 gallons ÷ .73 (1 – ullage compression rate) = 205.48 gallons
- ◆ 205.48 x 1.5 (OPW recommended safety factor) = 308.22 gallons
- ◆ Approximately 308 gallons required ullage

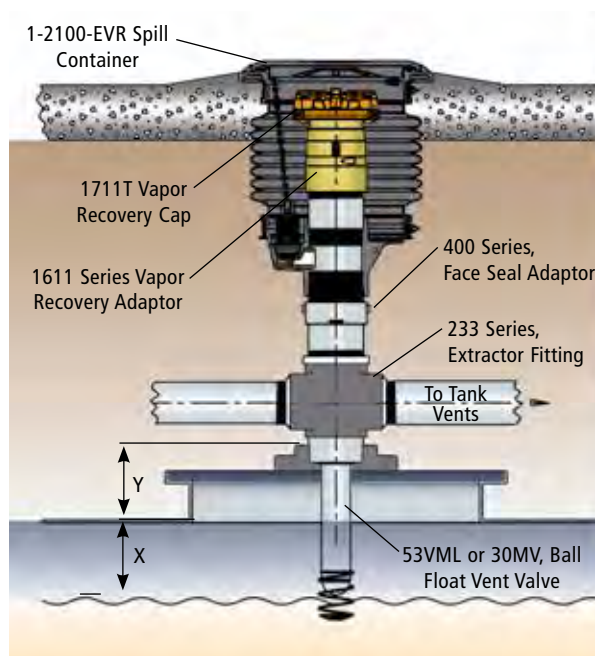
*Ullage compression rate will vary with head pressure.

OPW 53VML and 30MV Ball Float Sizing / OPW 89 Extractor Wrench

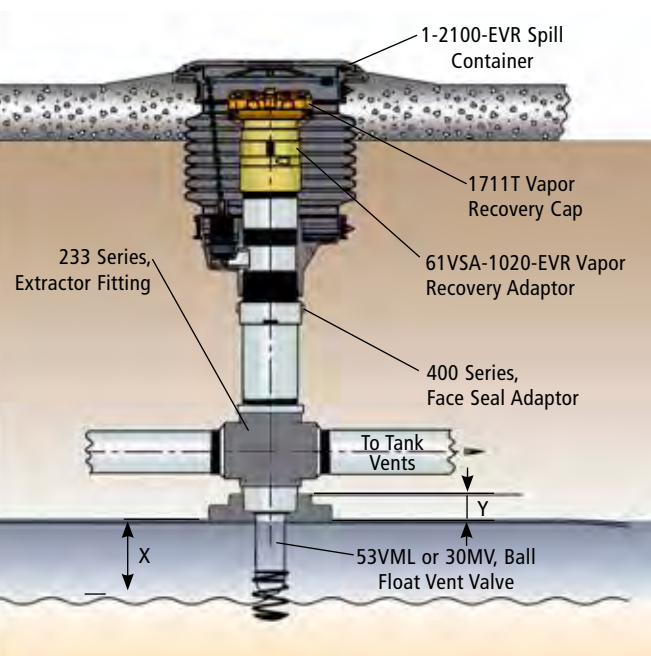
IMPORTANT:

Installing the incorrect length OPW 53VML or 30MV Ball Float Vent Valve for your specific application may result in delivery flow restriction at unacceptable levels. Always consult the appropriate tank charts and determine the specifics of your tank installation to determine the appropriate length OPW 53VML or 30MV. The illustration and instructions below are intended to serve as a guide in this determination.

Tank Manway Mounted Extractor

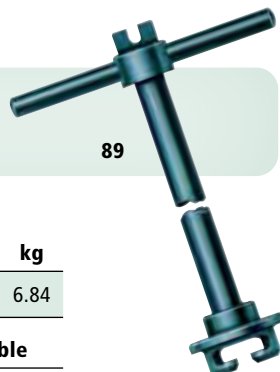


Tank Top Mounted Extractor



Materials

Pipe: Extra heavy black iron
Handle and Hook: Ductile iron



Ordering Specifications

| Product # | in. | mm | lbs. | kg |
|-----------|-----|----|------|------|
| 89-0044 | 2 | 51 | 3 | 6.84 |

| Size | Wrench | Product Compatible |
|------|---------|--------------------|
| 2" | 89-0044 | 233E, 88E Series |

OPW 89 Extractor Wrench

The OPW 89 Extractor Wrench is designed to install or remove OPW 53VML and 30MV Ball Float Vent Valves or OPW 233VP and 233VMP Test Plugs in OPW 233, 233V, and 233VM Extractor Fittings. The 89 is also designed to work with the cage assemblies on the 233E Suction Tube Extractor Fitting and 88E Extractable Angle Check Valve in suction system applications. The 89 wrench consists of a 4" section of pipe welded to a "T" handle with a 2" hook section. The 2" hook section mates with current OPW ball floats and extractable cages.

OPW 61T Drop Tube

The OPW 61T Drop Tube is installed in the fill riser pipe to an underground storage tank. It is designed to transfer product from the fill connection point (between the delivery drop elbow and tight-fill adaptor) to within 6" (or per local requirements) of the bottom of the tank. This allows for submerged filling of the tank, resulting in a more efficient delivery flow rate while reducing the build-up of vapors or foam in the tank.

OPW 61TC Coaxial Fill Drop Tubes

The OPW 61TC Coaxial Drop Tube is designed to replace an OPW 61T Conventional Drop Tube when Stage I Vapor Recovery is required and a vapor recovery riser pipe is not available on the tank or would require excavation to the top of the tank. The 61TC is used in conjunction with OPW 633TC Coaxial Vapor Recovery Adaptors to return vapors to the tank truck through one riser pipe during a fuel delivery to an underground storage tank. The upper section of the 61TC is tapered to allow vapors to return to the tank truck through the interstitial space between the riser pipe and outside wall of the drop tube. Simultaneously, product is delivered to the tank through the center of the 61TC.

OPW 61TCP Poppeted Coaxial Fill Drop Tubes

The OPW 61TCP Poppeted Coaxial Fill Drop Tube is similar to the 61TC, but is spring-loaded. When used in conjunction with the OPW 633TCP, the 61TCP acts as a poppet to close off the vapor return side of the coaxial fill tube.



Features

- ◆ **.062" Thick Drop Tube Walls** – deter denting and damage to the tube upon installation or removal for long service life.
- ◆ **Various Lengths and Diameters** – accommodate a variety of tank diameters and fill riser pipe sizes.

Ordering Specifications

| Product # | Drop Tube Length | | | | | |
|--------------------------|------------------|-----|------|------|-----|------|
| | in. | mm | lbs. | kg | ft. | m |
| 61T-7268 | 4 | 102 | 6.18 | 2.80 | 12 | 3.66 |
| 61T-7368 | 4 | 102 | 7.65 | 3.48 | 15 | 4.57 |
| 61T-7468 | 4 | 102 | 13 | 5.9 | 17 | 5.19 |
| E85 EVR Approved: | | | | | | |
| 61T-SS-0412 | 4 | 102 | 6.18 | 2.80 | 12 | 3.66 |
| 61T-SS-0418 | 4 | 102 | 13 | 5.9 | 19 | 5.19 |
| 61T-DEF-0412* | 4 | 102 | 6.18 | 2.8 | 12 | 3.66 |

*For DEF Applications Only

Replacement gaskets for the 61T-4" and the 61SO Series are available. Order the OPW 61TG (4000).

Features

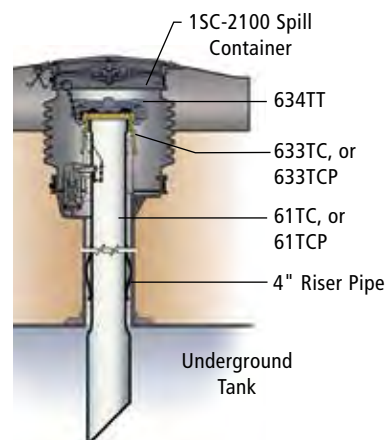
- ◆ **.052" Thick Drop Tube Walls** – deter denting and damage to the tube upon installation or removal for long service life
- ◆ **Various Lengths and Diameters** – accommodate a variety of tank diameters and fill riser pipe sizes
- ◆ **Fully Welded Retaining Brackets** – ensure a secure installation in the riser pipe
- ◆ **Three Centering Springs** – enable even flow of vapors back to the tank truck

Ordering Specifications

| Product # | Diameter | | Length | | Weight | |
|------------|----------|-----|--------|------|--------|------|
| | in. | mm | ft. | m | lbs. | kg |
| 61TC-7270 | 4 | 102 | 13 | 3.05 | 8.64 | 3.93 |
| 61TC-7272 | 4 | 102 | 16 | 4.88 | 13.82 | 6.28 |
| 61TCP-3800 | 4 | 102 | 13 | 3.96 | 8.96 | 4.07 |

61T Drop Tube Instruction Sheet Order Number: **200652**

61TCP-3800 Instruction Sheet Order Number: **H12064M**



Materials

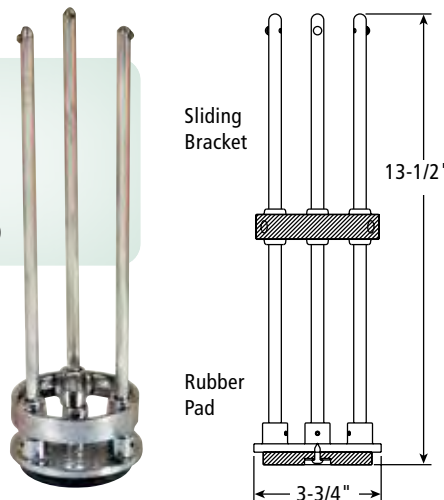
Body: Aluminum and stainless steel components

Viton Base Pad

6111-1400

Features

- ◆ **Viton® Base Pad** – ensures compatibility with current fuel formulations and absorbs impact of wooden gauge sticks to protect the bottom of the tank from punctures
- ◆ **Corrosion-Resistant** – aluminum and stainless steel components provide for a long service life
- ◆ **Unencumbered Vertical Movement** – assures the pad rests on the bottom of the tank and absorbs shock evenly
- ◆ **CARB Approved** – approval Letter #98-12
- ◆ **EVR Approved**



Ordering Specifications

| Product # | Height | | Diameter | | Weight | |
|-----------|--------|-----|----------|----|--------|-----|
| | in. | mm | in. | mm | lbs. | kg |
| 6111-1400 | 13 1/2 | 333 | 3 3/4 | 96 | 3 | 1.4 |

OPW Tank Bottom Protectors

OPW Tank Bottom Protectors are installed at the bottom of overfill prevention valves or drop tubes to help prevent the underground storage tank from damage or leakage at the fill point due to manual tank gauging with wooden sticks and erosion from dirt or debris.

OPW 6111-1400 Tank Bottom Protector

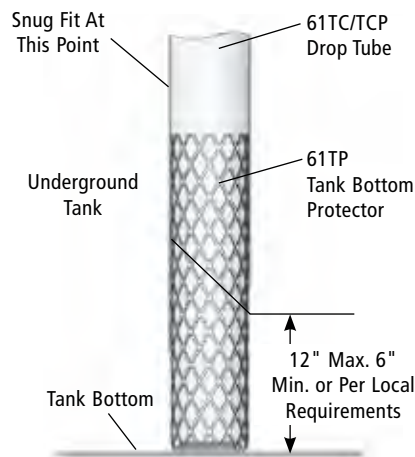
The OPW 6111-1400 incorporates a sliding bracket that is pop-riveted to the bottom of the drop tube. This secures the tank bottom protector to the drop tube for easy, reliable installation and removal for servicing the tank.

Features

- ◆ **Zinc-Plated Steel Cage** – ensures corrosion resistance for a long service life
- ◆ **Mesh Screen Design** – helps prevent debris or other foreign matter from obstructing the submersible pump or suction line foot valve

Ordering Specifications

| Product # | Height | | Weight | |
|-----------|--------|-----|--------|-----|
| | in. | mm | lbs. | kg |
| 61TP-2398 | 4 | 102 | 1.02 | .46 |



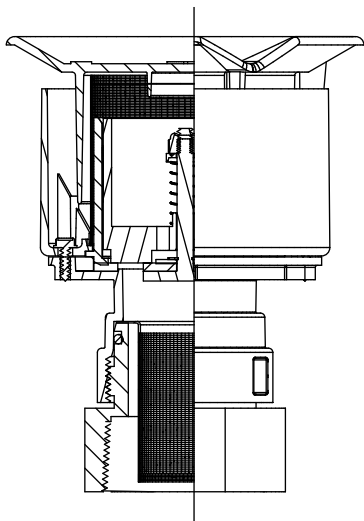
OPW 61TP Tank Bottom Protector

The OPW 61TP is a flanged, mesh screen design that slides to the bottom of the drop tube. The 61TP is held in place by the flanged spring action of the mesh screen. The mesh screen helps keep debris or other foreign matter from obstructing the submersible pump or suction line foot valve.

6111-1400 Tank Bottom Protector Instruction Sheet
Order Number: **H14977PA**

OPW 723V Pressure Vacuum Vents

Pressure Vacuum Vents are installed on the top of vent pipes from underground or above ground fuel storage tanks. The vent cap and internal wire screen are designed to protect the tank vent lines against intrusion and blockage from water, debris or insects. A normally closed poppet in the valve opens at a predetermined pressure or vacuum setting to allow the tank to vent.



Conversion Table

| Measurement Units | = | Oz. | PSI | In H ₂ O (WC) | In Hg (Merc) | Bar |
|--------------------------|---|-------|-------|--------------------------|--------------|-------|
| Bar | x | 236.0 | 14.5 | 401.4 | 29.53 | |
| In. Hg (Mercury) | x | 7.843 | 0.49 | 13.6 | | 0.034 |
| In H ₂ O (WC) | x | 0.578 | 0.04 | | 0.074 | 0.002 |
| PSI | x | 16.00 | | 27.68 | 2.04 | 0.069 |
| Oz. | x | | 0.063 | 1.73 | 0.128 | 0.004 |

Listings and Certifications



Materials

Top/Body: Polypropylene
Base: Anodized aluminum
Poppet: Anodized aluminum
Screen: Stainless steel mesh
Gasket: Cellular rubber



723V

Vent Must Be Mounted Vertically



Features

- ◆ **Preset and Tested Factory Settings** - 2.5" to 6" water column pressure settings and -6" to -10" water column vacuum settings
- ◆ **Cycle Tested For Reliability** - tested to the equivalent of 80 years of service in the most severe environment without leakage problems
- ◆ **Long Service Life** – corrosion-resistant Duratuff® composite construction
- ◆ **Easy Installation** – the 723V is available in 2" and 3" threaded versions
- ◆ **Certifications** – California Air Resources Board and Enhanced Vapor Recovery (CARB EVR)
- ◆ **UL Approved to CARB CP-201 Requirements**
- ◆ Underwriters Laboratory 2583 Listed
- ◆ Complies with NFPA 30 Requirements for venting gasoline vapors upward
- ◆ **High Maximum Flow Rate** – 6450 SCFH at 2 psi (0.1 bar) pressure drop
- ◆ **Manifold Vent Pipes** – vent pipes may be manifolded to produce a single Pressure Vacuum Vent line. The 723V exceeds California's requirements of a maximum vapor leak rate of 0.17 SCFH at 2.00 inches H₂O
- ◆ **Leak Rate** – multiple pressure vacuum vents may be installed on a single site. The 723V exceeds California standards with a leak rate of 0.05 SCFH or less at 2.00 inches H₂O
- ◆ **Screened Tank Vent Lines** – a 65 micron stainless steel screen helps prevent debris and insects from entering the lines. An added screen installed at the base prevents debris from intruding from the vent stack
- ◆ **No Tools Required** – A removable snap fit top allows for easy maintenance (recommended yearly)
- ◆ **Removable Threaded Bushing** – designed for easy installation on NPT threaded risers. Allows easy access to lower screen

723V Instruction Sheet

Order Number: 211276

Ordering Specifications

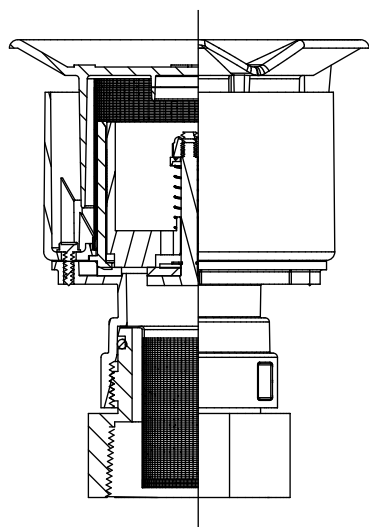
| Product # | Description | Identification Label Color | lb. | kg |
|-----------|---|----------------------------|------|------|
| 723V-2203 | 2" to 3" WC Pres., 8" WC Vac. Thread-On | Yellow | 1.55 | .70 |
| 723V-3203 | 2" to 3" WC Pres., 8" WC Vac. Thread-On | Yellow | 2.20 | 1.00 |

Replacement Parts

| Part Number | Description |
|-------------|--------------------------|
| C05086M | Lower Screen |
| 209817 | Upper Screen |
| C05089 | 2" Threaded Base Adaptor |
| C05122 | 3" Threaded Base Adaptor |

OPW 623V Pressure Vacuum Vent

Pressure Vacuum Vents are installed on the top of vent pipes from underground or above ground fuel storage tanks. The vent cap and internal wire screen are designed to protect the tank vent lines against intrusion and blockage from water, debris or insects. A normally closed poppet in the valve opens at a predetermined pressure or vacuum setting to allow the tank to vent.



Materials

Top/Body: Polypropylene
Base: Anodized aluminum
Poppet: Anodized aluminum
Screen: Stainless steel mesh
Gasket: Closed cell foam



623V
Vent Must Be Mounted Vertically

Features

- ◆ **Pressure/Vacuum Setting** – 2.5" to 6" water column pressure settings and -6" to -10" water column vacuum settings are factory preset and tested
- ◆ **Reliable Service** – cycle tested to the equivalent of 80 years of service in the most severe environment without leakage problems
- ◆ **Corrosion-Resistant Construction** – a Duratuff® composite body ensures a long service life
- ◆ **Easy Installation** – the 623V is available in 2" and 3" threaded versions
- ◆ **Complies with NFPA 30 Requirements** – for venting gasoline vapors upward
- ◆ **Manifold Vent Pipes** – vent pipes may be manifolded to produce a single Pressure Vacuum Vent line. The 623V is designed to exceed California's requirements of a maximum vapor leak rate of 0.17 SCFH at 2.00 inches H₂O
- ◆ **High Maximum Flow Rate** – 6450 SCFH at 2 psi (0.1 bar) pressure drop
- ◆ **Leak Rate** – multiple pressure vacuum vents may be installed on a single site. The 623V exceeds California standards with a leak rate of 0.05 SCFH or less at 2.00 inches H₂O
- ◆ **Maintenance** – no tools required. A removable snap fit top allows for easy maintenance (recommended yearly)
- ◆ **100-Mesh Stainless Steel Wire Screens** – helps prevent debris and insects from entering the tank vent lines. An added screen installed at the base prevents debris from intruding from the vent stack
- ◆ **Adaptor Bushing** – removable hex threaded bushing designed for easy installation on NPT threaded risers. Allows easy access to lower screen
- ◆ **ATEX Approved** – for flame arrestor applications

Ordering Specifications

| Product # | Description | Identification Label Color | lb. | kg |
|-----------|--|----------------------------|------|------|
| 623V-2203 | 2.5" to 6" WC Pres., -6" to -10" WC Vac. Thread-On | Yellow | 1.55 | .70 |
| 623V-3203 | 2.5" to 6" WC Pres., -6" to -10" WC Vac. Thread-On | Yellow | 2.20 | 1.00 |

Replacement Parts

| Part # | Description |
|---------|--------------------------|
| C05086M | Lower Screen |
| H14895M | Upper Screen |
| C05089 | 2" Threaded Base Adaptor |
| C05122 | 3" Threaded Base Adaptor |

Conversion Table

| Measurement Units | | In H ₂ O | | In Hg | |
|--------------------------|---|---------------------|-------|-------|--------|
| | | Oz. | PSI | (WC) | (Merc) |
| Bar | = | | | | |
| | x | 236.0 | 14.5 | 401.4 | 29.53 |
| In. Hg (Mercury) | x | 7.843 | 0.49 | 13.6 | 0.034 |
| | x | 0.578 | 0.04 | | 0.002 |
| In H ₂ O (WC) | x | 16.00 | | 27.68 | 2.04 |
| | x | | 0.063 | 1.73 | 0.128 |
| PSI | x | | | | |
| | x | | | | |
| Oz. | x | | | | |
| | x | | | | |

623V Instruction Sheet
Order Number: H14898M

Listings and Certifications



OPW 623V
& 523V



ATEX Approved

Patent No.
WO2004/036096AZ

Features

- ◆ **A Variety of Pressure/Vacuum Settings** – 3" water column, 1 oz., 8 oz., 12 oz. pressure settings and 8" water column or 1/2 oz. vacuum settings are factory preset and tested
- ◆ **Reliable Service** – self-guided poppet assembly ensures consistent seating of the pressure/vacuum valve
- ◆ **Corrosion-Resistant Construction** – Duratuff® composite body assures a long service life
- ◆ **Easy Installation** – 523V is available in 2" and 3" threaded versions or slip-on models that provide for attachment to the vent line with allen head screws and radial sealing O-ring



- ◆ **Complies with NFPA 30 Requirements** – for venting gasoline vapors upward
- ◆ **High Maximum Flow Rate** – 7000 SCFH at 2 psi pressure drop
- ◆ **40-Mesh Stainless Steel Wire Screen** – helps prevent debris and insects from entering the tank vent lines

Ordering Specifications

| Product # | Description | Identification Label Color | lb. | kg |
|-----------|---------------------------------------|----------------------------|------|------|
| 523V-1100 | 2" 8 oz Pres., 1/2 oz. vac. thread-on | Red | 1.65 | .75 |
| 523V-1150 | 2" 8 oz Pres., 1/2 oz. vac. slip-on | Red | 1.65 | .75 |
| 523V-3100 | 3" 8 oz Pres., 1/2 oz. vac. thread-on | Red | 3.2 | 1.45 |
| 523V-3150 | 3" 8 oz Pres., 1/2 oz. vac. slip-on | Red | 3.2 | 1.45 |
| 523V-2200 | 2" 1 oz Pres., 1/2 oz. vac. thread-on | Silver | 1.65 | .75 |
| 523V-2250 | 2" 1 oz Pres., 1/2 oz. vac. slip-on | Silver | 1.65 | .75 |
| 523V-3200 | 3" 1 oz Pres., 1/2 oz. vac. thread-on | Silver | 3.2 | 1.45 |
| 523V-2203 | 2" 3" WC Pres., 8" WC vac. thread-on | Yellow | 1.65 | .75 |
| 523V-2253 | 2" 3" WC Pres., 8" WC vac. slip-on | Yellow | 1.65 | .75 |
| 523V-3203 | 3" 3" WC Pres., 8" WC vac. thread-on | Yellow | 3.2 | 1.45 |
| 523V-3253 | 3" 3" WC Pres., 8" WC vac. slip-on | Yellow | 3.2 | 1.45 |

Materials

Body: Aluminum
O-Ring: Nitrile



Ordering Specifications

| Product # | Description | in. | mm | lb. | kg |
|------------|--|-----|-------|-----|------|
| 523A-1003 | 4" Thread-On Adaptor for use with 523V Pressure / Vacuum Vents | 2x3 | 51x76 | .47 | .213 |
| 523SA-1003 | 3" Slip-On Adaptor for use with 523V Pressure / Vacuum Vents | 2x3 | 51x76 | .63 | .286 |
| 523SA-1002 | 2.5" Slip-On Adaptor for use with 523V Pressure / Vacuum Vents | 2x2 | 51x51 | .31 | .141 |

OPW 523V Pressure Vacuum Vent

Pressure Vacuum Vents are installed on the top of vent pipes from underground or above ground fuel storage tanks. The vent cap and internal wire screen are designed to protect the tank vent lines against intrusion and blockage from water, debris or insects. A normally closed poppet in the valve opens at a predetermined pressure or vacuum setting to allow the tank to vent.

Conversion Table

| Measurement Units | | In H ₂ O | | In Hg | |
|-----------------------------|---|---------------------|-------|-------|--------|
| | = | Oz. | PSI | (WC) | (Merc) |
| Bar In. Hg (Mercury) | x | 236.0 | 14.5 | 401.4 | 29.53 |
| | x | 7.843 | 0.49 | 13.6 | 0.034 |
| In H ₂ O (WC) | x | 0.578 | 0.04 | | 0.074 |
| PSI Oz. | x | 16.00 | | 27.68 | 2.04 |
| | x | | 0.063 | 1.73 | 0.128 |

Replacement Parts

| Part # | Description |
|---------|----------------------|
| H11432M | O-Ring for 2" Thread |
| H11456M | O-Ring for 3" Thread |

523V Instruction Sheet
Order Number: **H11972M**

OPW 523V Series Adaptor Bushings

The 523V Series Adaptor Bushings are designed to thread into the base of 2" threaded 523V vents. The adaptor bushings convert a 2" 523V to 3" threaded, 2" slip-on or 3" slip-on connection.

Materials

Body: Aluminum
Screen: 40-mesh brass
Set Screws: Brass

23



Features

- ◆ Reliable Service – vent cap drain spouts extend outward to deter rainwater entry.
- ◆ Corrosion-Resistant Construction – aluminum body and cap assure a long service life.
- ◆ Easy Installation – 23 series is available in 2" and 3" slip-on models that provide for attachment to the vent line with set screws.
- ◆ Complies with NFPA 30 Requirements – for venting gasoline vapors upward.
- ◆ High-Maximum Flow Rate – 7000 SCFH at 2 psi (0.14 bar) pressure drop.
- ◆ 40-Mesh Brass Wire Screen – Helps prevent debris and insects from entering the tank vent lines.

Replacement Parts

| Part # | Description |
|---------|-------------|
| H00122M | Screw |
| H01967M | Nut |
| H01969M | Screen |

Ordering Specifications

| Product # | Description | in. | mm | oz. | kg | Weight | |
|-----------|-------------|-----|----|-----|-----|--------|------|
| | | | | | | lbs. | kg |
| 23-0044 | Open Vent | 1½ | 38 | 3.8 | .11 | 0.25 | 0.11 |
| 23-0033 | Open Vent | 2 | 51 | 4.3 | .12 | 0.25 | 0.11 |
| 23-0055 | Open Vent | 3 | 76 | 5.0 | .14 | 1.00 | 0.45 |

Materials

Body: Zinc/aluminum
Screen: brass
Cap: 2" - Steel 4" - cast iron
Screen: 40-mesh stainless steel

113

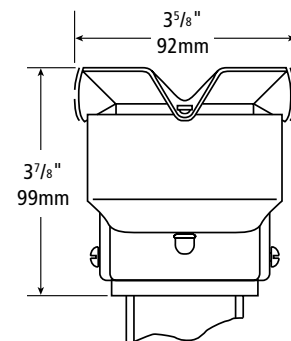


Ordering Specifications

| Product # | in. | mm | lbs. | kg |
|-----------|-----|-----|------|------|
| 113-0099 | 4 | 102 | 7.50 | 3.41 |

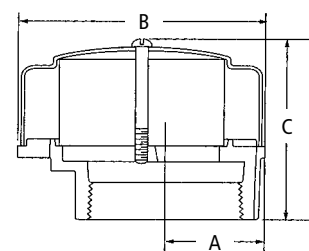
OPW 23 Series Open Atmospheric Vents

Open Atmospheric Vents are installed on the top of vent pipes from underground or above ground fuel storage tanks. The vent cap and internal wire screen are designed to protect the tank vent lines against intrusion and blockage from water, debris or insects. These vents are always open to atmosphere and allow any pressure or vacuum into the tank to vent.



OPW 113 Series Open Atmospheric Utility Vents

OPW 113 Open Atmospheric Utility Vents are installed on the top of above ground fuel storage tanks. The vent cap and internal wire screen are designed to protect the tank vent lines against intrusion and blockage from water, debris or insects. These vents are always open to atmosphere and allow any pressure or vacuum into the tank to vent. The 113 vents vapors downward and is used primarily on diesel, fuel oil, waste-oil and motor-oil tanks, but can also be used on a wide variety of above ground storage tank venting applications.



Fibrelite Composite Access Covers

Fibrelite manufactures the widest range of composite manhole covers for the Retail Fueling industry. After 30 years Fibrelite remains number one in the market, supplying globally innovative new designs.

Manholes & Monitoring Well Equipment

OPW Manholes are designed for use in a wide variety of service station, commercial and industrial driveway applications. They provide access from grade level to underground equipment including tank sumps, tank riser pipes, monitoring equipment, submersible pumps, valves and piping connections.

Composite Manholes

Lightweight and extremely durable, composite cover manholes make sump accessibility safer and easier than ever before. Designed for use in many service station, commercial and industrial driveway applications, these manholes offer a wide variety of features to ensure the ultimate in safety, user-friendly convenience and long-lasting performance.

Cast Iron Manholes and Fill Boxes

Heavily ribbed cast iron covers and body rings ensure maximum load-bearing capacity on cast iron manholes and fill boxes. These manholes are ideal for connecting underground tank lines directly to the surface without sump enclosures. A variety of features available on cast iron manholes and fill boxes make them the perfect choice for many applications.

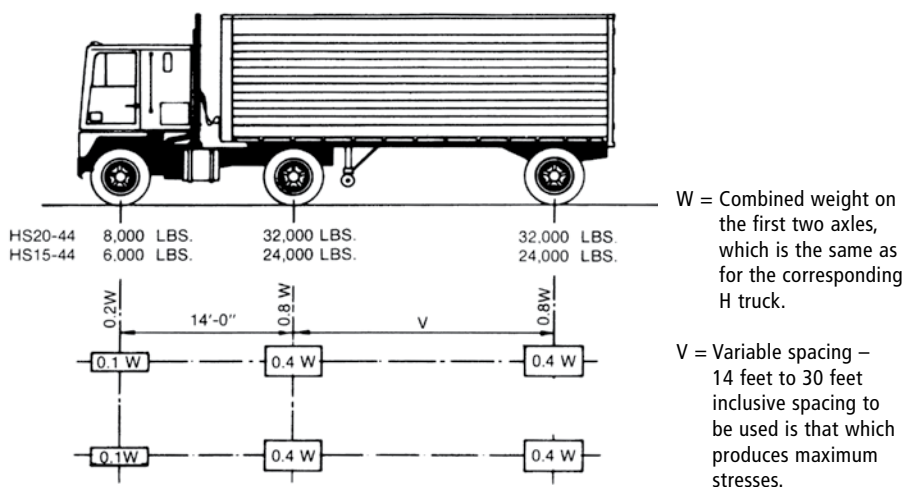
Steel Manholes

Steel Manholes are designed for use in a variety of service station driveway, industrial and commercial applications, and are used to provide access to all types of underground equipment, including vapor recovery connections, UST monitoring equipment, submersible pumps and tank gauging equipment.

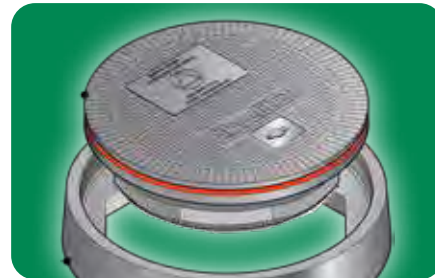
Monitoring Well Manholes

OPW Monitoring Well Manholes are designed for monitoring and observation well applications where limited access and clear identification are essential. Rugged cast iron covers meet H20 load rating requirements for long-lasting and reliable performance. The covers feature a permanently cast-in "Do Not Fill" warning statement and a black equilateral triangle inset into a white background in accordance with API Recommended Practice 1615.

OPW Manhole Covers Exceed Highway Specification-20 (H20)



Manholes & Monitoring Well Equipment



Highway Specification-20 (H20) is contained in the "Standard Specifications for Highway Bridges" and is intended to serve as a standard or guide of preparation of state specifications.

H20 incorporates rear axle loading of 32,000 lbs. over rear axle (4 wheel on single axle) or wheel loading of 8,000 lbs. per tire.

Fibrelite Composite Manholes

Fibrelite offers the retail petroleum industry's leading watertight, easy to remove, non-bolted composite manhole covers in a large selection of shapes and sizes. From general tank sump access to multiport and single port fill sump applications to interstitial sumps and monitoring wells, Fibrelite has every application covered.

Multiple colors are available – Contact OPW Customer Service for pricing, availability, and lead times.

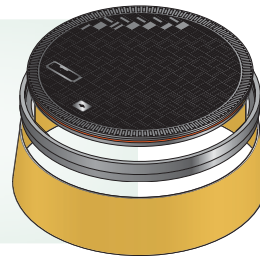
Materials:

Cover: Fiberglass

Frame: Fiberglass

Skirt: Fiberglass

**Cover Includes
Frame and Skirt**



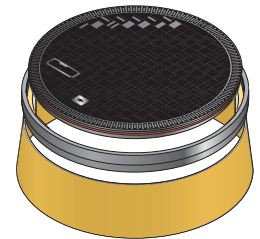
Features & Benefits:

- ◆ UV resistant
- ◆ Round, square and rectangular (wide range of sizes)
- ◆ Anti-slip surface - no costly injury claims
- ◆ Will not corrode
- ◆ Watertight, sealed design
- ◆ No bolts required
- ◆ Monolithic structure eliminates delaminating
- ◆ Ergonomic, single person removal and replacement with Fibrelite lifting handle
- ◆ Locks available for all covers
- ◆ Available in any color
- ◆ Heavy Duty (HD40) covers available for truck stops, bus depots and industrial applications

Complete Cover Assemblies

Ordering Specifications - Complete Grade Level "Flat" Composite Manholes

| Part # | Description | Color | Skirt I.D. | Cover O.D. | Skirt Length | Wt. |
|-----------------|---|-------|------------|------------|--------------|---------|
| FL120BLACK-SK12 | 12" Black Flat Composite Manhole Cover Bonded | Black | 12" | 15" | 12" | 26 lbs |
| FL180BLACK-SK12 | 18" Black Flat Composite Manhole Cover Bonded | Black | 18" | 21.2" | 12" | 40 lbs |
| FL600BLACK-SK12 | 24" Black Flat Composite Manhole Cover Bonded | Black | 24" | 27" | 12" | 76 lbs |
| FL760BLACK-SK12 | 30" Black Flat Composite Manhole Cover Bonded | Black | 30" | 33" | 12" | 89 lbs |
| FL90BLACK-SK12 | 36" Black Flat Composite Manhole Cover Bonded | Black | 36" | 38.5" | 12" | 109 lbs |
| FL90GRAY-SK12 | 36" Gray Flat Composite Manhole Cover Bonded | Gray | 36" | 38.5" | 12" | 109 lbs |
| FL100BLACK-SK12 | 40" Black Flat Composite Manhole Cover Bonded | Black | 40" | 44" | 12" | 142 lbs |
| FL100GRAY-SK12 | 40" Gray Flat Composite Manhole Cover Bonded | Gray | 40" | 44" | 12" | 142 lbs |



Complete Grade Level "Flat" Composite Manholes

Contact OPW for custom length skirts, heavy duty or colored covers 1-800-422-2525.

Replacement Parts - Replacement Covers

| Part # | Description | Color | Skirt I.D. | Cover O.D. | Cover Ht. | Wt. |
|------------|--|-------|------------|------------|-----------|---------|
| FL120BLACK | 12" Dia. Black Flat Sealed Composite Cover | Black | 12" | 15" | 3.91" | 13 lbs |
| FL180BLACK | 18" Dia. Black Flat Sealed Composite Cover | Black | 18" | 21.2" | 3.84" | 22 lbs |
| FL600BLACK | 24" Dia. Black Flat Sealed Composite Cover | Black | 24" | 27" | 3.84" | 46 lbs |
| FL760BLACK | 30" Dia. Black Flat Sealed Composite Cover | Black | 30" | 33" | 3.84" | 59 lbs |
| FL90BLACK | 36" Dia. Black Flat Sealed Composite Cover | Black | 36" | 38.5" | 3.84" | 75 lbs |
| FL100BLACK | 40" Dia. Black Flat Sealed Composite Cover | Black | 40" | 44" | 3.84" | 110 lbs |
| FL100GRAY | 40" Dia. Gray Flat Sealed Composite Cover | Gray | 40" | 44" | 3.84" | 110 lbs |
| FL36BLACK | 36" Dia. Black Raised Composite Cover | Black | 36" | 40" | 3.84" | 66 lbs |
| FL36GRAY | 36" Dia. Gray Raised Composite Cover | Gray | 36" | 40" | 3.84" | 66 lbs |
| FL42BLACK | 42" Dia. Black Raised Composite Cover | Black | 42" | 46.5" | 3.84" | 93 lbs |

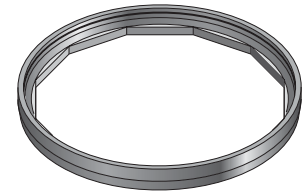
*Add HD to Part Numbers above to specify Heavy-Duty H40 Rated Covers



Ordering Specifications

Frames "Mounting Frame"

| Part # | Description | Skirt I.D. | Manhole Type | Weight (lbs) |
|--------|---|------------|--------------|--------------|
| FL120F | 12" Composite Frame For FL120 Covers | 12" | Flat | 7.7 |
| FL180F | 18" Flat Composite Frame For FL180 Covers | 18" | Flat | 11 |
| FL600F | 24" Flat Composite Frame For FL600 Covers | 24" | Flat | 17 |
| FL760F | 30" Flat Composite Frame For FL760 Covers | 30" | Flat | 18 |
| FL90F | 36" Flat Composite Frame For FL90 Covers | 36" | Flat | 20 |
| FL100F | 40" Composite Frame For FL100 Covers | 40" | Flat | 26 |

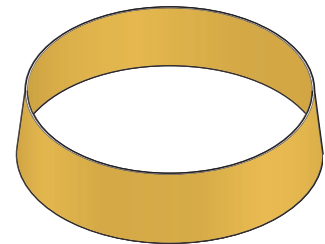


Frames - Flat Fiberglass Mounting Ring

Ordering Specifications

Skirts

| Part # | Description | Skirt I.D. | Manhole Type | Skirt Length | Weight (lbs) |
|---------------|---|------------|--------------|--------------|--------------|
| FL120-SK12 | 12" Deep FRP Skirt To Fit FL120 | 12" | Flat | 12" | 5 |
| FL180-SK12 | 12" Deep FRP Skirt To Fit FL180 | 18" | Flat | 12" | 7 |
| FL600-SK12 | 12" Deep FRP Skirt To Fit FL600 | 24" | Flat | 12" | 10 |
| FL760-SK12 | 12" Deep FRP Skirt To Fit FL760 | 30" | Flat | 12" | 12 |
| FL90-SK12 | 12" Deep FRP Skirt To Fit FL90 Flat | 36" | Flat | 12" | 14 |
| FL100-SK12 | 12" Deep FRP Skirt To Fit FL100 | 40" | Flat | 12" | 16 |
| FL100-SK10-46 | 10" Deep FRP Stepped Skirt To Fit FL100 | 40" | Flat | 10" | 15 |



Skirt

Ordering Specifications

Cover Accessories

| Part # | Description |
|-------------------|---|
| FL7 | Lifting Handle For Raised Covers - FL42/FL36 |
| FL7A | Lifting Handle With Foot Pedal For Watertight Covers - FL100/FL90/FL180 |
| FL7A-ENCL | Enclosure To House FL7A Handles |
| KEY-HREP-10-76-90 | Key Housing Repair Kit & Compound |
| FIB-KHB | Replacement Rubber Bung |
| FIB-KHP | Rubber Key Housing Plug |
| FIB2-RL-KEY | Key For FIB2-RL Cover Lock |
| FL120-SEAL | 12" Replacement Gasket For FL120 |
| FL180-SEAL | 18" Replacement Gasket For FL180 |
| FL600-SEAL | 24" Replacement Gasket For FL600 |
| FL760-SEAL | 30" Replacement Gasket For FL760 |
| FL90-SEAL | 36" Replacement Gasket For FL90 |
| FL100-SEAL | 40" Replacement Gasket For FL100 |



FL7A Keylift



FL7 Keylift

Replacement Gasket



FL7A-ENCL Enclosure

OPW Conquistador™ Plus Composite Cover Manholes

Lightweight and extremely durable, composite cover manholes make sump accessibility safer and easier than ever before. Designed for use in many service station, commercial and industrial driveway applications, these manholes offer a wide variety of features to ensure the ultimate in user-friendly convenience and long-lasting performance.

The Conquistador™ Duratuff® helps put an end to the risk of back, foot and hand injuries with a slip-resistant tread pattern and lightweight, low-profile construction for easier and safer access to tank sumps and other underground equipment.



Replacement Parts

| Product # | Description |
|--|--------------------------|
| New Recessed Handle Replacement Parts | |
| 205749 | Handle |
| 203174 | Screw |
| Recessed Handle Replacement Parts | |
| RPHK | Replacement Handle Kit |
| H13439M | Handle |
| H13441M | Weld Nut |
| H14462M | Screw |
| H11620M | Washer |
| Key-Lift Kit Replacement Parts | |
| 203541 | Keylift |
| 203569 | Screw |
| Key-Lift Kit 2 Replacement Parts | |
| RPKLK | Replacement Key-Lift Kit |
| DO2677M | Key Lift Plate |
| H13441M | Weld Nut |
| H14463M | Screw |



Features

- ◆ Slip-resistant tread pattern
- ◆ Easy removal and replacement
- ◆ Two lifting options; stainless steel recessed handle or key-lift provision
- ◆ Reduced risk of back, foot and hand injuries
- ◆ Unmatched deflection performance
- ◆ Outstanding long-term durability in rigorous cycle tests
- ◆ Three mounting options
- ◆ Unique structural fiberglass reinforcement matrix
- ◆ Water-resistant models available
- ◆ Roto-Lock and Bolt-Down models available
- ◆ Interchangeable with other manufacturers' covers
- ◆ Painted ring and brass bolts help to prevent rust and corrosion
- ◆ Ribbed gasket peel and stick design for easy replacement
- ◆ Roto-Lock Models – for securing a raintight connection without the need to locate threaded bolt holes on the mounting ring. The Roto-Lock offers quick and easy access, while maintaining a secure sump application
- ◆ H20 Rating – Exceeds Highway Specification - 20 (H20) Rating

Lifting Options



NEW Recessed Handle
203666



Recessed Handle
RPHK



Key-Lift
203541



Key-Lift
RPKLK

Key-Lift Provision (90K-KLS Stick Not Included)

Replacement Handles and Keylifts by Model Year

| Item | Part # | Conquistador Model Years | Description |
|---------------------|--------|--------------------------|---|
| Replacement Handle | RPHK | 2000-2008 | 2 Thru Hole Bolt Pattern Design Handle |
| Replacement Handle | 203666 | 2009-Present | 2 Threaded Hole Bolt Pattern Design Handle |
| Replacement Keylift | RPKLK | 2000-2008 | 4 Thru Hole Bolt Pattern Design Keylift |
| Replacement Keylift | 203667 | 2009-Present | 2 Threaded Hole Bolt Pattern Design Keylift |

Materials

Cover: Fiberglass
Ring: Painted steel
Skirt: Galvanized steel
Key Lift / Recessed Handles: Stainless steel
Bolts: Stainless steel
Roto-lock: Brass



Dimensions

| Cover | A (Ring I.D.) | | B (Skirt I.D.) | | Cover Wt. | | Assembly Wt. | |
|----------------------------------|------------------------------------|--------|----------------------------------|--------|-----------|---------|--------------|---------|
| 39 ¹ / ₂ " | 36 ¹ / ₈ " | 92 cm | 38 ⁵ / ₈ " | 98 cm | 76 lbs. | 34.4 kg | 134 lbs. | 60.8 kg |
| 44 ¹ / ₄ " | 40 ²⁹ / ₃₂ " | 104 cm | 43 ³ / ₈ " | 110 cm | 89 lbs. | 40.4 kg | 163 lbs. | 74 kg |

Ordering Specifications

Plain Cover-Grey

| Product # | Description | Cover Only |
|-----------|--|------------|
| 39CD-PL10 | 39 ¹ / ₂ " Plain Cover w/ Recess Handle | E00618 |
| 39CD-PLKL | 39 ¹ / ₂ " Plain Cover w/ Key-Lift Provision | E00620 |
| 44CD-PL10 | 44 ¹ / ₄ " Plain Cover w/ Recess Handle | E00626 |
| 44CD-PLKL | 44 ¹ / ₄ " Plain Cover w/ Key-Lift Provision | E00628 |

Bolt-Down Cover-Grey

| Product # | Description | Cover Only |
|-----------|---|------------|
| 39CD-WT10 | 39 ¹ / ₂ " Bolt Down Cover w/ Recess Handle | E00622 |
| 39CD-WTKL | 39 ¹ / ₂ " Bolt Down w/ Key-Lift Provision | E00624 |
| 44CD-WT10 | 44 ¹ / ₄ " Bolt Down Cover w/ Recess Handle | E00630 |
| 44CD-WTKL | 44 ¹ / ₄ " Bolt Down w/ Key-Lift Provision | E00632 |

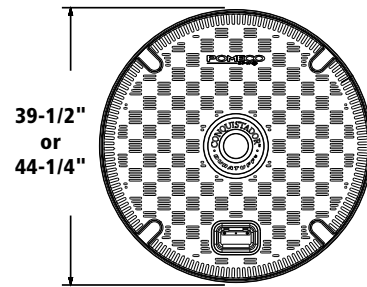
Roto-Lock Cover-Grey

| Product # | Description | Cover Only |
|-----------|--|------------|
| 39CD-RL10 | 39 ¹ / ₂ " Roto-Lock w/ Recess Handle | E00714 |
| 39CD-RLKL | 39 ¹ / ₂ " Roto-Lock w/ Key-Lift Provision | E00715 |
| 44CD-RL10 | 44 ¹ / ₄ " Roto-Lock w/ Recess Handle | E00713 |
| 44CD-RLKL | 44 ¹ / ₄ " Roto-Lock w/ Key-Lift Provision | E00712 |

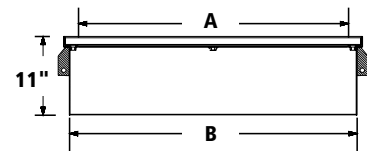
Steel Cover Only

| Product # | Description |
|------------|---|
| P110-3950L | 39 ¹ / ₂ " Plain Cover Only |
| P110-4425L | 44 ¹ / ₄ " Plain Cover Only |

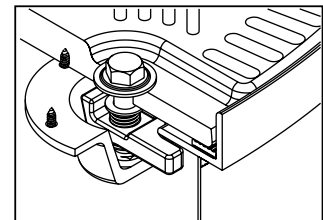
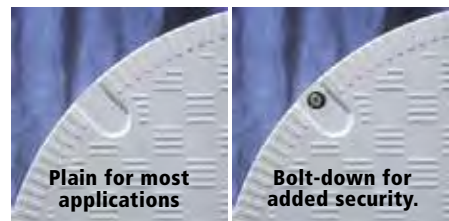
OPW Conquistador™ Plus Composite Cover Manholes



Cover 1" Thick

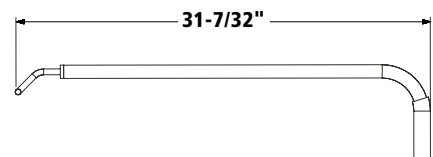


Mounting Options:



Roto-Lock Fastening System

Key Lift Provision Stick



Replacement Parts

| Product # | Description |
|-----------|--------------------------------------|
| 90K-KLS | Key-Lift Provision Stick |
| H14858 | Replacement Gasket for 39CD and 44CD |
| H14460M | Replacement Bolts |
| H14461M | Replacement Washers |
| 1RL-KIT | Replacement Roto-Lock Kit |

MATADOR

COMPOSITE COVER

Gain independence from heavy steel covers with this all-new composite cover. OPW engineered the Matador with next generation composite technology to make it the lightest cover in the industry, and priced it to compete with any cover on the market for use at petroleum retail operations, in addition to use for commercial and industrial driveway applications.

Available in 37" and 42" options, the Matador Composite Cover is lightweight, water resistant and extremely durable. Standout features include a steel frame, stainless steel recessed lift handle and a polyethylene skirt with a flair that prevents corrosion and rust. The lightweight design and slip-resistant tread pattern helps to prevent the risk of back, foot and hand injuries. The Matador makes sump accessibility safer and easier than ever before.



Materials

Cover: Fiberglass

Ring: Painted Steel

Skirt: Polyethelene

Recessed Handle: Stainless steel

Roto Locks: Ductile iron



Features & Benefits

- ◆ **Lightweight design helps to reduce risk of back, foot and hand injuries**
- ◆ **Slip-resistant tread pattern**
- ◆ **Water resistant**
- ◆ **Easy removal and replacement**
- ◆ **Stainless steel recessed handle**
- ◆ **Exceptional deflection performance**
- ◆ **Long-life performance** – comparable to heavier competitor models in cycle tests
- ◆ **Special structural fiberglass reinforcement matrix**
- ◆ **Two mounting options**
- ◆ **Roto-Lock Option** – for providing a secure locking mechanism without the need to locate threaded bolt holes on the mounting ring. The Roto-Lock offers quick and easy access while maintaining a secure sump application.
- ◆ **Painted steel frame**
- ◆ **Polyethylene skirt with flair**
- ◆ **H2O Rating** – Exceeds Highway Specification – 20 (H2O) Rating
- ◆ **Flared skirt allows equivalent water percolation to 39" and 44" covers**

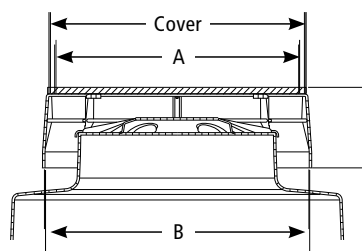
Ordering Specifications

| Product # | Description | Covers Only | lb. | kg |
|------------|---|--|-------|-------|
| 37MAT-PL12 | 37" Plain Matador Composite Cover, Includes Ring and Skirt | 212529 | 63.00 | 28.58 |
| 37MAT-CM12 | 37" Cam-Lock Matador Composite Cover, Includes Ring and Skirt | 212168 | 66.00 | 29.94 |
| 42MAT-PL12 | 42" Plain Matador Composite Cover, Includes Ring and Skirt | 212518 | 83.00 | 37.65 |
| 42MAT-CM12 | 42" Cam-Lock Matador Composite Cover, Includes Ring and Skirt | 212164 | 87.00 | 39.46 |
| 203666 | Replacement Handle Kit (same as conquistador) | Equivalent to Conquistador replacement numbers | | |
| 205749 | Replacement Handle Only (same as conquistador) | | | |
| 203174 | Replacement Handle Screw Only (same as conquistador) | | | |
| 1CL-KIT | Replacement Cam Kit | | | |

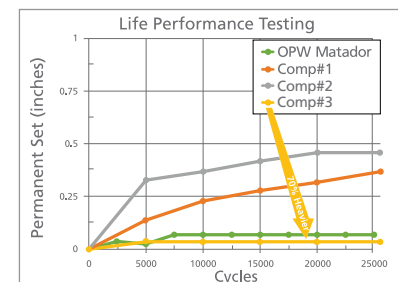
Dimensions



Cover 1" Thick



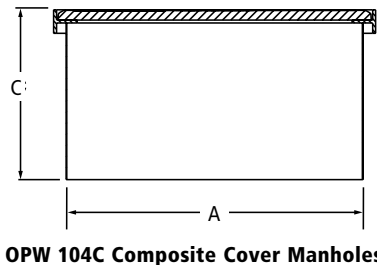
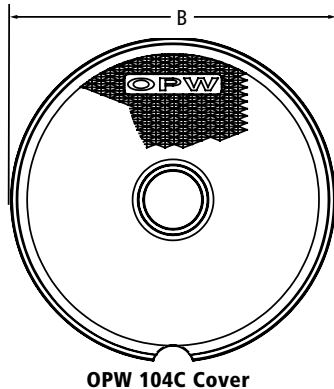
Performance Chart



| Cover | A (Ring I.D.) | | B (Skirt I.D.) | | Assembly Weight (Plain) | | Assembly Weight (Cam-Lock) | |
|-------|---------------|-----------|----------------|-----------|-------------------------|----------|----------------------------|----------|
| 37.50 | 35.50 in | 90.17 cm | 38.62 in | 98.09 cm | 83.00 lbs | 37.63 kg | 105.00 lbs | 47.63 kg |
| 42.00 | 40.00 in | 101.60 cm | 43.50 in | 110.49 cm | 86.00 lbs | 39.00 kg | 109.00 lbs | 49.44 kg |

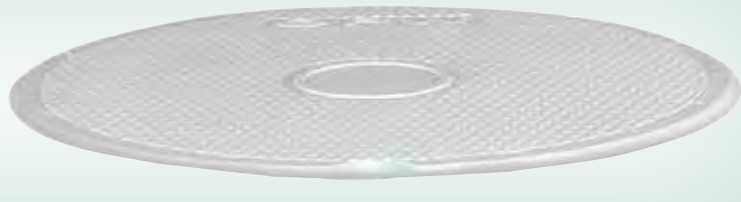
OPW 104C Composite Cover Manholes

The OPW 104C 20" (500mm) Composite Cover Manholes allow easy access to UST monitoring equipment and provide additional space for electrical junction boxes.



OPW 104C Composite Cover Manholes

20" Cover



Features

- ◆ **Lightweight Cover** – provides safe, easy removal and replacement
- ◆ **Durable Composite Construction** – never rusts, fades or needs to be painted
- ◆ **Spark-Free Cover Design** – fiberglass construction eliminates the possibility of sparks caused by replacing cover on mounting ring
- ◆ **Flush-Mount, Rolled Steel Mounting Ring** – eliminates the need for sloping concrete to reduce snow plow and traffic hazards
- ◆ **Highway 20 Rated (H20)** – all OPW spill containers and manholes exceed the requirements of the Highway 20 rating

Ordering Specifications

| Product # | ID (in.) | ID (mm) | lbs. | kg |
|-----------|----------|---------|------|------|
| 104C-2000 | 20 | 500 | 22 | 10.0 |

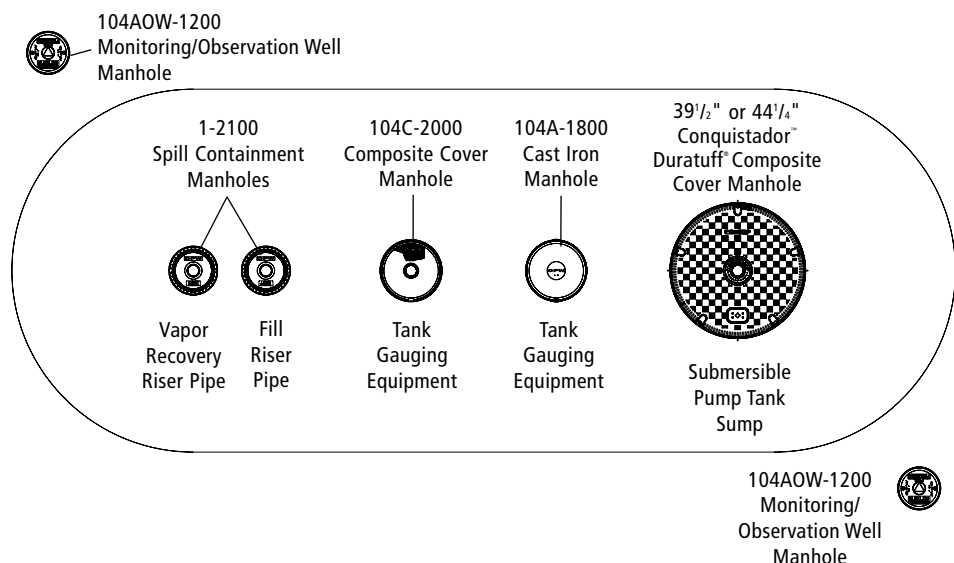
Replacement Parts

| Part # | Description |
|-------------|---------------------|
| 101BG-Cover | Cover for 104C-2000 |

Dimensions

| Product # | A | | B | | C | |
|-----------|-----|-------|-------------------|------|-----|------|
| | in. | cm | in. | cm | in. | cm |
| 104C-2000 | 19 | 48.26 | 20 ^{3/4} | 52.7 | 11 | 27.9 |

Typical Underground Storage Tank Manhole Layout



Materials

Body Ring: Cast iron
Cover: Cast iron
Skirt: Galvanized steel



OPW 104A Cast Iron Manhole

A sturdy steel skirt on the standard 104A extends nearly a foot below grade to ensure trouble-free installation in deep concrete, and optional skirts that extend a full 19-1/4" below grade are available in 12" and 18" diameters for sandy soil locations.

OPW 104FG Cast Iron Manhole

The 104FG provides a convenient finger grip feature on the cover to facilitate cover removal.

Features

- ◆ Full-size internal diameters for maximum access and working area
- ◆ Highway 20 Rated (H20) – All OPW spill containers and manholes exceed the requirements of the Highway 20 rating
- ◆ Rugged cast iron covers and body rings
- ◆ Cast-in, non-skid finish on covers
- ◆ Sturdy, extra long steel skirts
- ◆ Individually boxed for ease of handling

Ordering Specifications

| Product # | ID (in.) | ID (mm) | lbs. | kg |
|-------------|----------|---------|------|------|
| 104A-0800 | 8 | 203 | 15 | 6.8 |
| 104A-0800WT | 8 | 203 | 15 | 6.8 |
| 104A-1200 | 12 | 305 | 28 | 12.7 |
| 104A-1200WT | 12 | 305 | 33 | 15.0 |
| 104A-1219 | 12 | 305 | 33 | 15.0 |
| 104FG-1200* | 12 | 305 | 28 | 12.7 |
| 104FG-1219* | 12 | 305 | 33 | 15.0 |
| 104A-1800 | 18 | 457 | 50 | 22.7 |
| 104A-1800WT | 18 | 457 | 50 | 22.7 |
| 104A-1819 | 18 | 457 | 57 | 25.9 |
| 104A-1819WT | 18 | 457 | 57 | 25.9 |

* Finger Grip Cover Manhole

Replacement Parts

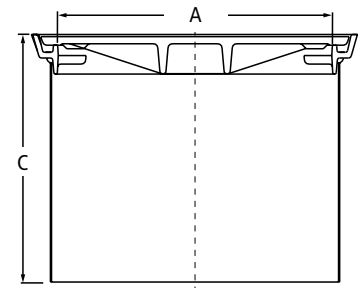
| Part # | Description |
|---------|---------------------------|
| E00508M | Cover for 8" 104A-0800 |
| E00510M | Cover for 12" 104A-1200 |
| E00584M | Cover for 12" 104FG-1200 |
| E00512M | Cover for 18" 104A-1800 |
| 206118 | Cover for 8" 104A-0800WT |
| 206119 | Cover for 12" 104A-1200WT |
| 206120 | Cover for 18" 104A-1800WT |

Replacement Parts

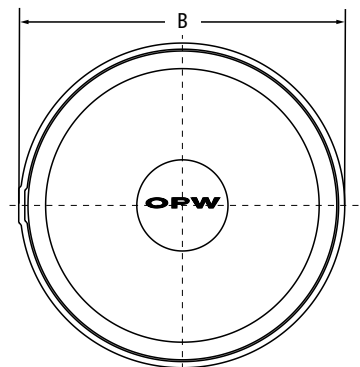
| Part # | Description |
|---------|----------------------------|
| H12872M | Cover for 8" w/ Ring Seal |
| H12873M | Cover for 12" w/ Ring Seal |
| H12874M | Cover for 18" w/ Ring Seal |

OPW 104 Series Cast Iron Manholes

Heavily ribbed cast iron covers and body rings ensure maximum load bearing capacity on cast iron manholes and fill boxes. These manholes are ideal for connecting underground tank lines directly to the surface without sump enclosures. A variety of features available on cast iron manholes and fill boxes make them the perfect choice for many applications.



OPW 104A/FG Cast Iron Cover Manholes



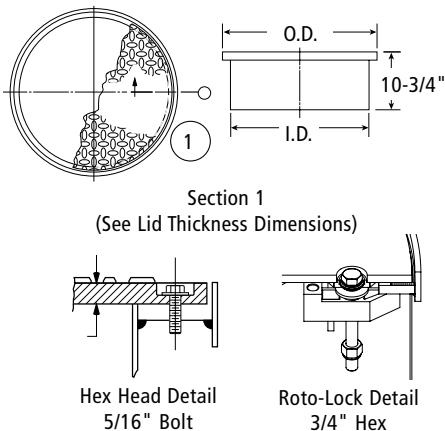
OPW 104A & 104FG Cover

Dimensions

| Product # | A | | B | | C | |
|--------------|----|------|--------------------------------|------|--------------------------------|------|
| | in | cm | in | cm | in | cm |
| 104A-0800 | 8 | 20.3 | 10 ¹ / ₈ | 25.7 | 11 ¹ / ₄ | 28.6 |
| 104A/FG-1200 | 12 | 30.5 | 14 ¹ / ₄ | 36.2 | 11 ¹ / ₄ | 28.6 |
| 104A/FG-1219 | 12 | 30.5 | 14 ¹ / ₄ | 36.2 | 19 ¹ / ₄ | 48.9 |
| 104A-1800 | 18 | 45.7 | 20 ¹ / ₈ | 51.1 | 11 ¹ / ₄ | 28.6 |
| 104A-1819 | 18 | 45.7 | 20 ¹ / ₈ | 51.1 | 19 ¹ / ₄ | 48.9 |

OPW 110/120 Series Steel Round Manholes

OPW 110/120 Series Round Manholes are designed for use in a wide range of service station driveway, industrial and commercial applications. The 110s and 120s are used to provide access to all types of underground equipment, including vapor recovery connections, UST monitoring equipment and submersible pumps. The 120 Series includes Roto-Lock fasteners on 24" and larger manholes.



Replacement Parts

| Part # | Description |
|------------|---------------------------------|
| P110-8G | 8" Replacement Gasket |
| P110-12G | 12" Replacement Gasket |
| P110-16G | 16" Replacement Gasket |
| P110-18G | 18" Replacement Gasket |
| P110-24G | 24" Replacement Gasket |
| P110-30G | 30" Replacement Gasket |
| P110-37G | 37" Replacement Gasket |
| P110-40G | 40" Replacement Gasket |
| P110-42G | 42" Replacement Gasket |
| P110-48G | 48" Replacement Gasket |
| PROTO-LOCK | (1) Replacement Roto-Lock |
| P110-8L | Replacement Cover 8" |
| P110-12L | Replacement Cover 12" |
| P110-16L | Replacement Cover 16" |
| P110-18L | Replacement Cover 18" |
| P110-24L | Replacement Cover 24" |
| P110-37L | Replacement Cover 37" |
| P110-40L | Replacement Cover 40" |
| P110-42L | Replacement Cover 42" |
| P110-48L | Replacement Cover 48" |
| P110-18WT | Replacement Cover 18" Bolt Down |
| P110-24WLT | Replacement Cover 24" Bolt Down |
| P110-37WLT | Replacement Cover 37" Bolt Down |
| P110-42WLT | Replacement Cover 42" Bolt Down |
| P110-48WLT | Replacement Cover 48" Bolt Down |
| P120-37L | Replacement Cover 37" Roto-Lock |
| P120-42L | Replacement Cover 42" Roto-Lock |
| RPHK | Replacement Handle |

Materials

Skirt: Galvanized steel
Cover: Steel diamond plate
Ring: Cast iron or fabricated steel
Gasket: Nitrile



Features

- ◆ **Standard and Raintight Models Available** – raintight models include Buna-N gaskets and recessed hex-head bolts or Roto-Lock fasteners to help prevent water intrusion
- ◆ **Wide Range of Sizes** – sizes range from 24" to 48" (61 to 122 cm) to accommodate a wide range of applications. Custom sizes and configurations are also available
- ◆ **Easy Cover Removal** – an integral recessed handle is included on all raintight and plain manholes 24" and larger. Manholes 42" and larger include dual recessed handles and provision for centered 1/2" - 13 threaded allen head blind plug for easy removal so that a 1/2" - 13 eyebolt can be threaded into the hole for easier removal of covers
- ◆ **Highway 20 Rated (H20)** – all OPW spill containers and manholes exceed the requirements of the Highway 20 rating

Ordering Specifications

| Model # | Description | Cover O.D. | | Skirt I.D. | | Thickness | | Weight | | Ring |
|-------------|---------------------------|------------|-----|--------------------------------|-----|--------------------------------|----|--------|-----|------------|
| | | in. | cm | in. | cm | in. | cm | lbs. | kg | |
| 6110-24WT | Raintight* | 24 | 61 | 21 ⁵ / ₈ | 55 | ³ / ₈ | 9 | 88 | 40 | Fab. Steel |
| 6110-2410 | Standard* | 24 | 61 | 21 ⁵ / ₈ | 55 | ³ / ₈ | 9 | 88 | 40 | Fab. Steel |
| 6110-30WT | Raintight* | 30 | 76 | 27 ⁵ / ₈ | 70 | ¹ / ₂ | 13 | 160 | 73 | Fab. Steel |
| 6110-3010 | Standard* | 30 | 76 | 27 ⁵ / ₈ | 70 | ³ / ₈ | 9 | 160 | 73 | Fab. Steel |
| 6110-37WT | Raintight* | 37 | 94 | 34 ⁵ / ₈ | 88 | ¹ / ₂ | 13 | 178 | 81 | Fab. Steel |
| 6110-3710 | Standard* | 37 | 94 | 34 ⁵ / ₈ | 88 | ³ / ₈ ** | 9 | 178 | 81 | Fab. Steel |
| 6110-4010 | Standard* | 40 | 102 | 37 ⁵ / ₈ | 96 | ³ / ₈ | 9 | 198 | 90 | Fab. Steel |
| 6110-42WT | Raintight* | 42 | 107 | 39 ⁵ / ₈ | 101 | ¹ / ₂ ** | 13 | 290 | 132 | Fab. Steel |
| 6110-4200 | Standard | 42 | 107 | 39 ⁵ / ₈ | 101 | ¹ / ₂ ** | 13 | 290 | 132 | Fab. Steel |
| 6110-48WT | Raintight* | 48 | 122 | 45 ⁵ / ₈ | 116 | ¹ / ₂ ** | 19 | 390 | 177 | Fab. Steel |
| 6110-42WT18 | Raintight with 18" skirt* | 42 | 107 | 39 ⁵ / ₈ | 101 | ¹ / ₂ ** | 13 | 290 | 132 | Fab. Steel |
| 6120-24WT | Roto-Lock Raintight 24WT* | 24 | 61 | 22 ⁵ / ₈ | 55 | ³ / ₈ | 9 | 88 | 40 | Fab. Steel |
| 6120-30WT | Roto-Lock Raintight 30WT* | 30 | 76 | 28 ⁵ / ₈ | 70 | ¹ / ₂ | 13 | 160 | 73 | Fab. Steel |
| 6120-37WT | Roto-Lock Raintight 37WT* | 37 | 94 | 35 ⁵ / ₈ | 88 | ³ / ₈ | 13 | 178 | 81 | Fab. Steel |
| 6120-42WT | Roto-Lock Raintight 42WT* | 42 | 107 | 40 ⁵ / ₈ | 101 | ¹ / ₂ ** | 13 | 290 | 132 | Fab. Steel |
| 6120-48WT | Roto-Lock Raintight 48WT* | 48 | 122 | 46 ⁵ / ₈ | 116 | ¹ / ₂ ** | 19 | 390 | 177 | Fab. Steel |

* Recessed Handle

** Reinforced Cover

Standard - Plain No Bolts

Raintight - Bolt Down

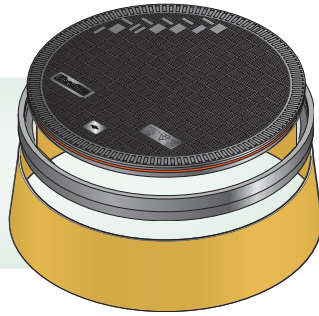
Deep skirts available upon request

Materials:

Cover: Fiberglass
Frame: Fiberglass
Skirt: Fiberglass

Cover Includes Frame
and Skirt

Monitoring Well Manholes

**Features & Benefits:**

- ◆ UV resistant
- ◆ Round, square and rectangular (wide range of sizes)
- ◆ Anti-slip surface – no costly injury claims
- ◆ Will not corrode
- ◆ Watertight, sealed design
- ◆ No bolts required
- ◆ Ergonomic, single person removal and replacement with Fibrelite lifting handle

Ordering Specifications - Monitoring Well Manholes

| Part # | Description | Color | Skirt I.D. | Cover O.D. | Skirt Length | Wt. |
|--------------------|---------------------------------------|-------|------------|------------|--------------|--------|
| FL120BLACK-MW | Flat Sealed Composite Cover - Labeled | Black | 12" | 15" | 3.91" | 13 lbs |
| FL120BLACK-MW-SK12 | Bonded | Black | 12" | 15" | 12" | 26 lbs |

Bonded - Assembled Cover, Ring And Skirt

Fibrelite Composite Monitoring Manholes

Fibrelite offers the retail petroleum industry's leading watertight, easy to remove, non-bolted composite manhole covers in a large selection of shapes and sizes. From general tank sump access to multiport and single port fill sump applications to interstitial sumps and monitoring wells, Fibrelite has every application covered.

Multiple colors are available – Contact OPW Customer Service for pricing, availability, and lead times.

Replacement Covers

FL120BLACK-MW

Sealed - Labeled Monitoring Well Cover

| Color | Skirt I.D. | Cover O.D. | Cover Ht. | Wt. |
|-------|------------|------------|-----------|--------|
| Black | 12" | 15" | 3.91" | 13 lbs |

**Brine Monitoring Reservoir**

Deep solid base sump, with a spill container, integrated drainback system to the tank

Ordering Specifications

| Part # | Description | Weight (lbs) |
|------------|---|--------------|
| S45-1180BL | 18" dia. x 18" DP FRP Sump w/ FL180F & FL180BLACK Cover | 76 |
| S45-1180G | 18" dia. x 18" DP FRP Sump w/ FL180F & FL180GRAY Cover | 76 |

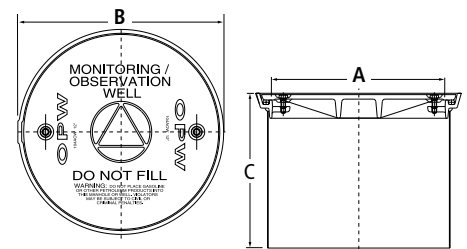
OPW Monitoring / Observation Well Manholes

Designed to be installed at grade level over a slotted PVC monitoring well where limited access and clear identification are essential. Ring gasket prevents water contamination.

Materials

Body Ring: Cast iron
Cover: Cast iron
Skirt: Steel (104 AOW)
Gasket: Neoprene

104AOW-1200

**Ordering Specifications**

| Product # | ID (in.) | ID (mm) | lbs. | kg |
|-------------|----------|---------|------|------|
| 104AOW-0800 | 8 | 203 | 15 | 6.8 |
| 104AOW-1200 | 12 | 305 | 28 | 12.7 |
| 104AOW-1219 | 12 | 305 | 33 | 15.0 |
| 104AOW-1800 | 18 | 457 | 50 | 22.7 |
| 104AOW-1819 | 18 | 457 | 57 | 25.9 |

Replacement Parts

| Part # | Description |
|---------|---------------------------|
| E00514I | Cover for 8" 104AOW-0800 |
| E00515I | Cover for 12" 104AOW-1200 |
| E00514I | Cover for 8" 104MW-0800 |
| E00516I | Cover for 18" 104AOW-1800 |
| H12872M | Gasket for 104AOW 8" |
| H12873M | Gasket for 104AOW 12" |
| H12874M | Gasket for 104AOW 18" |

Dimensions

| Product # | A | | B | | C | |
|-------------|-----|-----|--------------------------------|-----|--------------------------------|-----|
| | in. | mm | in. | mm | in. | mm |
| 104AOW-0800 | 8 | 203 | 10 ¹ / ₈ | 257 | 11 ¹ / ₄ | 286 |
| 104AOW-1200 | 12 | 305 | 14 ¹ / ₄ | 362 | 11 ¹ / ₄ | 286 |
| 104AOW-1219 | 12 | 305 | 14 ¹ / ₄ | 362 | 19 ¹ / ₄ | 489 |
| 104AOW-1800 | 18 | 457 | 20 ¹ / ₈ | 511 | 11 ¹ / ₄ | 286 |
| 104AOW-1819 | 18 | 457 | 20 ¹ / ₈ | 511 | 19 ¹ / ₄ | 489 |



Replacement Manhole Covers (Old & New)

| Product # | Replacement Cover | Cover O.D. |
|--------------------|------------------------------------|----------------------------------|
| 104A-1066 | D00173M | 13 ¹ / ₈ " |
| 104A-0800 | E00508M | 9 ¹ / ₂ " |
| 104A-1200 & 1219 | E00510M | 13 ¹ / ₂ " |
| 104A-1800 & 1819 | E00512M | 19 ¹ / ₂ " |
| 104AOW-0800 | E00514M | 9 ¹ / ₂ " |
| 104AOW-1200 & 1219 | E00515I | 13 ¹ / ₂ " |
| 104AOW-1800 & 1819 | E00516I | 19 ¹ / ₂ " |
| 104AOW-1218 | Obsolete E00319I – No Replacement | 13" |
| 104MW-0018 | Obsolete C03436RS – No Replacement | 16 ⁷ / ₈ " |
| 6310-37" COMPOSITE | Obsolete – Pomeco can make Steel | 37" |
| 6310-42" COMPOSITE | Obsolete – Pomeco can make Steel | 42" |
| 39CD-39" | P110-3950L | 39 ¹ / ₂ " |
| 44CD-44" | P110-4425L | 44 ¹ / ₄ " |

Replacement Fill Boxes (Old & New)

| Product # | Replacement Cover | Cover O.D. |
|-----------|---------------------------|---------------------------------|
| 122-0033 | Obsolete – No Replacement | NA |
| 122-0055 | Obsolete – No Replacement | NA |
| 122-0077 | Obsolete – No Replacement | NA |
| 126A-1044 | Obsolete – No Replacement | 4 ⁷ / ₈ " |

Above Ground Products

Setting the Industry Standard for More Than 120 Years

Conventional Automatic Nozzles

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| • Manual Utility Farm Nozzle | 190 |
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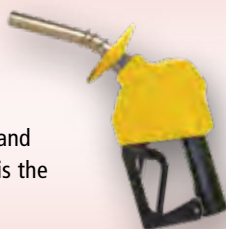
Retractors

| | |
|---|-----------|
| • Spring Balance Hose Retractors | 195 - 197 |
| • Counterweight Hose Retractors (MPD) | 197 |

OPW NEWGARD™

Two-Piece Hand Insulator

OPW 11A® and 11B® Series nozzles are furnished complete with NEWGARD™ 2-piece hand insulators. 2-Piece NEWGARD™ Hand Insulator is the most comfortable nozzle in the industry to use.



OPW NEWGARD™

Full Hand Insulator

All OPW 7 Series, Astro Series, and 1A Series nozzles are furnished complete with NEWGARD™ one-piece hand insulators. Available in a variety of colors.



OPW AUTOMATIC NOZZLE FEATURES – MULTIPLE SOLUTIONS FOR MULTIPLE CUSTOMERS

No Pressure No Flow Device

- ◆ Safety feature to prevent spills when system is not pressurized

Durable Spout

- ◆ Highest flow rates in industry
- ◆ Quick/easy replacement
- ◆ Stainless steel tip (11B only)

Automatic Shut-Off Sensing Port

- ◆ Highly accurate sensing port ensures nozzle shut-off reliability

Flow Lock™

- ◆ Shuts off nozzle automatically when spout is tipped up, limiting spillage

Blocker on the Lever Guard

- ◆ Prevents use of foreign objects to jam nozzle open in pre-pay applications

Trigger Spring

- ◆ Great durability & service life
- ◆ Improves clip disengagement at shut-off

Accu-Stop™ Flow Control

- ◆ Allows customer to top off tank to exact amounts
- ◆ Easily stops the flow of gasoline precisely

Hand Insulator

- ◆ Attractive visual appeal
- ◆ Comfortable to the touch in cold or hot weather
- ◆ Ergonomic for smaller hands
- ◆ Available in a variety of colors

Low Profile Aluminum Body

- ◆ Lightweight and durable
- ◆ Attractive design

Duratuff® Lever & Guard

- ◆ Toughest, most durable handguard & lever in the industry
- ◆ Comfortable to the touch in hot or cold weather

Hold-Open Rack

- ◆ Easy, one-finger control to set flow rate

*Patent Pending

WHY

**new OPW 14 Series nozzles
are ideal for ensuring a
spotless reputation.**



NEW

Cleaner Nozzle Technology



Because new 14 Series clean fueling nozzles by OPW feature patent-pending free-draining spout technology that significantly reduces retained fuel in the spout after fueling. This unique innovation provides a cleaner, greener fueling experience for your customers and a spotless reputation for your site.

Visit opwclean14.com to learn **WHY** the OPW 14 Series is the right choice for ensuring you a spotless reputation.

OPW 
RETAIL FUELING
a **DOVER** company



OPW 14 Series Nozzles

- 14E Dripless Gasoline Nozzle with interlock.



- 14C Diesel Capture Technology Nozzle



PUMPING OUT INNOVATIVE PRODUCTS SINCE 1892.

The name in nozzles has always been OPW. We build each new model on a heritage of over 125 years in fueling excellence, and we don't plan on stopping. No matter the grade of gasoline or the type of fuel, we provide solutions, including a whole new series of clean fueling nozzles, to keep fueling stations operating at peak performance and in perfect compliance. Expert guidance and responsive service come standard too. Do your nozzles carry the OPW name?

OPW CARB-Certified 14E ECO Enhanced Conventional Gasoline Nozzle

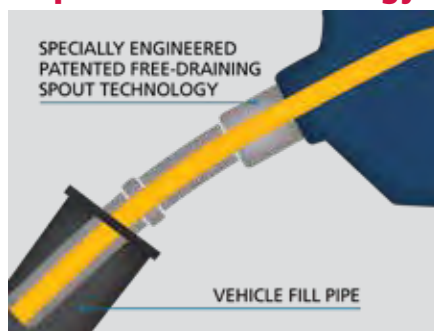
The OPW 14E ECO Enhanced Conventional Gasoline nozzle is part of the new OPW 14 Series cleaner fueling experience nozzles, featuring innovative patented* dripless free-draining spout technology. Other dripless technologies capture fuel in the spout where it is allowed to evaporate and increase VOC emissions.

The new OPW 14E dripless spout technology is designed to keep gasoline from dripping on your customers' hands, clothing, vehicles and the ground to provide a cleaner, greener, and more satisfying customer experience.

The CARB ECO OPW 14E utilizes a special interlock system inside the bellows to activate the flow of fuel.

**View the 14E Nozzle CARB
Executive Order.**

Dripless Nozzle Technology



MATERIALS

Body: Aluminum
Lever & Lever Guard: Duratuff®
Packing: Graphite with Teflon®
Disc: Viton®
Spout: Aluminum with
Stainless-Steel tip and
Teflon-coated inside
Inlet Size: 3/4" NPT
Weight: 2.73 lbs. each
1.25 kg each



FEATURES & BENEFITS

Safe for Use

- ◆ True Dripless Technology* – patented dripless, free-draining spout with no dams or hidden reservoirs to catch liquid. Designed to exceed CARB dripless requirements.
- ◆ Rugged Durability – designed to meet the rigorous demands of high-volume sites.
- ◆ FlowLock™ allows nozzle to shut off when falling out of a vehicle or is tipped up, limiting spillage and unsafe conditions.
- ◆ Enhanced Drip Control (14E Models only) - specially designed interlock prevents fuel from flowing unless the spout is fully inserted in the vehicle fill pipe and the actuator is engaged. This is a CARB requirement.

Durable and Long-Lasting Design

- ◆ Cycle tested and proven to last longer than 1 million cycles.

- ◆ Durable lever guard that won't scratch your customers' vehicles – made from Duratuff®.

Cleaner Fueling Experience for Customers

- ◆ Easy to use – utilizing Accu-Stop® to-the-penny Flow Control Technology.
- ◆ Attractive two-piece hand insulator which includes NEWGARD™ barrel cover and colored scuff guard, is the most comfortable nozzle in the industry to use.
- ◆ Convenient – one-finger hold-open clip that is easy to set the flow rate.

Design Working Pressure

- ◆ 50 psi (3.45 bar) maximum pressure.

LISTINGS & CERTIFICATIONS

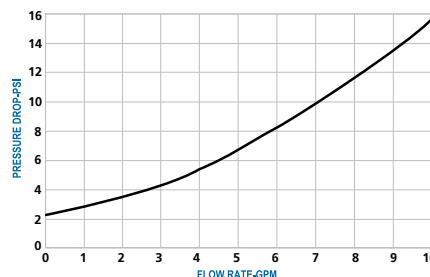


*US PATENTS 7,134,580 AND 9,126,820.
OTHER PATENTS-PENDING

ORDERING SPECIFICATIONS

| Scuff Guard Color | 14E Unleaded Nozzles |
|-------------------|----------------------|
| Green | 14E-0100 |
| Silver | 14E-0200 |
| Red | 14E-0300 |
| Black | 14E-0400 |
| Blue | 14E-0500 |
| Gold | 14E-0750 |
| Orange | 14E-0800 |
| Yellow | 14E-0900 |

GPM FLOW CHART



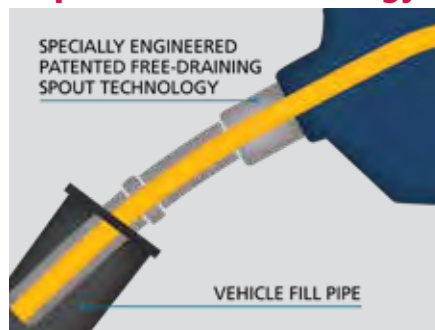
OPW 14BP Gasoline Nozzle

The OPW 14BP Conventional Gasoline Nozzle is part of the new OPW 14 Series cleaner fueling experience nozzles, featuring innovative patented and patent-pending dripless spout technology.

The new OPW 14BP dripless nozzle spout technology is designed to keep gasoline from dripping on your customers' hands, clothing, vehicles and the ground to provide a cleaner, greener and more satisfying customer experience.

The OPW 14BP is a standard fueling nozzle without the interlock device.

Dripless Nozzle Technology



MATERIALS

- Body:** Aluminum
- Lever & Lever Guard:** Duratuff®
- Packing:** Graphite with Teflon®
- Disc:** Viton®
- Spout:** Aluminum with
Stainless Steel tip and
Teflon-coated inside
- Inlet Size:** 3/4" NPT
- Weight:** 2.73 lbs. each
1.25 kg each



FEATURES & BENEFITS

Safe for Use

- ◆ True Dripless Technology* – patented and patent-pending, dripless spout, no dams or hidden reservoirs to catch liquid. Designed to exceed CARB dripless requirements.
- ◆ Rugged Durability – designed to meet the rigorous demands of high-volume sites.
- ◆ FlowLock™ allows nozzle to shut off when falling out of a vehicle or is tipped up, limiting spillage and unsafe conditions.

Durable and Long-Lasting Design

- ◆ Cycle tested and proven to last longer than 1 million cycles.
- ◆ Durable lever guard that won't scratch your customers' vehicles – made from Duratuff®.

Cleaner Fueling Experience for Customers

- ◆ Easy to use – utilizing Accu-Stop® to-the-penny Flow Control Technology.
- ◆ Attractive two-piece NEWGARD™ Hand Insulator is the most comfortable nozzle in the industry to use.
- ◆ Convenient – one-finger hold-open clip that is easy to set the flow rate.

Design Working Pressure

- ◆ 50 psi (3.45 bar) maximum pressure.

LISTINGS & CERTIFICATIONS

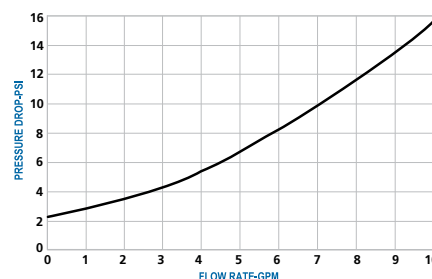


*US PATENTS 7,134,580 AND 9,126,820.
OTHER PATENTS-PENDING

ORDERING SPECIFICATIONS

| 2-Piece Hand Insulator Color | 14BP Unleaded |
|------------------------------|---------------|
| Green | 14BP-0100 |
| Silver | 14BP-0200 |
| Red | 14BP-0300 |
| Black | 14BP-0400 |
| Blue | 14BP-0500 |
| Yellow | 14BP-0750 |
| Gold | 14BP-0800 |
| Orange | 14BP-0900 |
| Bare | 14BP-0009 |

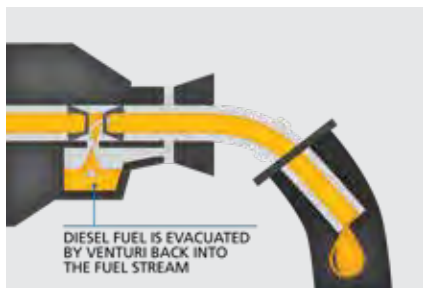
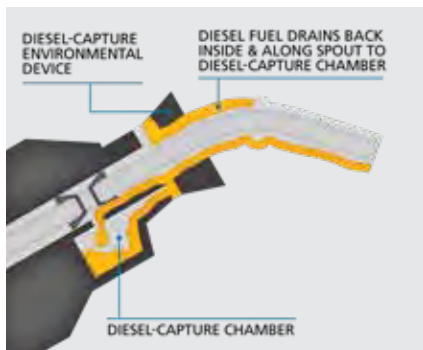
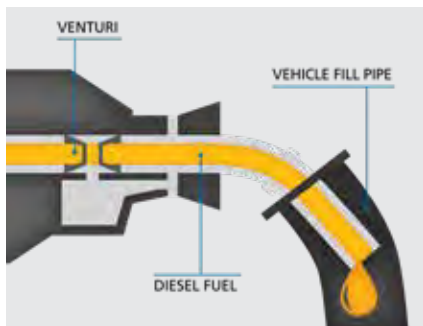
GPM FLOW CHART



OPW 14C Diesel Capture Technology Nozzle

The OPW 14C is part of the new OPW 14 Series cleaner fueling experience nozzles, featuring innovative patented* diesel-capture technology. This innovation is designed to provide a cleaner, greener fueling experience for customers while keeping diesel fuel off their hands and off the ground.

Diesel Capture Technology



MATERIALS

- Body:** Aluminum
- Lever & Lever Guard:** Duratuff®
- Packing:** Graphite with Teflon®
- Disc:** Viton®
- Spout:** Aluminum
- Inlet Size:** 3/4" NPT
- Weight:** 2.73 lbs. each
1.25 kg each



14C Series shown with permanently installed Splash Guard

FEATURES & BENEFITS

Safe for Use

- ◆ Diesel Fuel Capture Technology* – the patented technology allows excess diesel fuel to drain into a uniquely engineered chamber located in the body of the nozzle located at the base of the spout. This excess diesel fuel is then introduced back into the fuel stream.
- ◆ Drip Guard – designed to capture any fuel that runs out onto the outside of the nozzle.
- ◆ Compatible for diesel-fuel blends up to B20.
- ◆ Rugged Durability – designed to meet the rigorous demands of high-volume sites.
- ◆ FlowLock™ allows nozzle to shut off when falling out of a vehicle or is tipped up, limiting spillage and unsafe conditions.

Durable and Long-Lasting Design

- ◆ Cycle tested and proven to last longer than 1 million cycles.

- ◆ Durable lever guard that won't scratch your customers' vehicles – made from Duratuff®.

Cleaner Fueling Experience for the Customer

- ◆ Easy to use – utilizing Accu-Stop® to-the-penny Flow Control Technology.
- ◆ Attractive two-piece hand insulator which includes NEWGARD™ barrel cover and colored scuff guard, is the most comfortable nozzle in the industry to use..
- ◆ Convenient – one-finger hold-open clip that is easy to set the flow rate.

Design Working Pressure

- ◆ 50 psi (3.45 bar) maximum pressure.

LISTINGS & CERTIFICATIONS

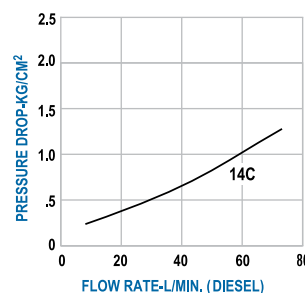


*US PATENTS 7,134,580 AND 9,126,820.
OTHER PATENTS-PENDING

ORDERING SPECIFICATIONS

| Scuff Guard Color | 14C Diesel Nozzles |
|-------------------|--------------------|
| Green | 14C-0100 |
| Silver | 14C-0200 |
| Red | 14C-0300 |
| Black | 14C-0400 |
| Blue | 14C-0500 |
| Gold | 14C-0750 |
| Orange | 14C-0800 |
| Yellow | 14C-0900 |

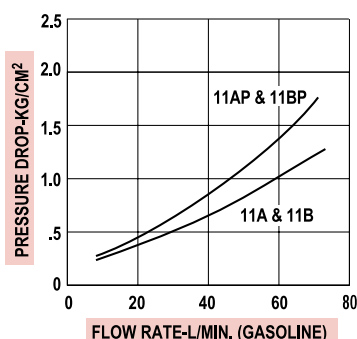
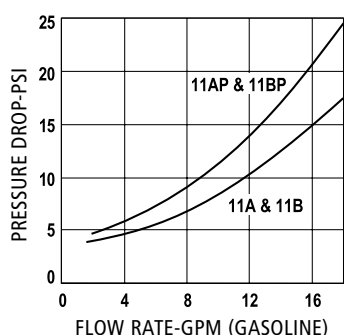
GPM FLOW CHART



FIRST to Meet NEW UL 2586 Requirements

OPW 11A® and 11B® Automatic Nozzles

The OPW 11® Series automatic nozzles are OPW's premium conventional nozzles for safe retail and commercial petroleum filling. The OPW 11® Series is the most trusted conventional nozzle in the world for full service use. The OPW 11B® Series is designed for use in retail and commercial filling applications including prepay, self- and full-service, credit/debit card readers or card-lock systems to help prevent gasoline spills. The OPW 11B® will not open until the pumping system is pressurized, and closes automatically when the pressure is removed.

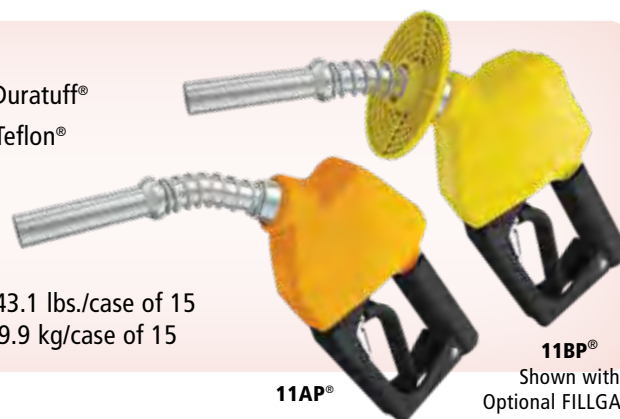


Accessories

| Name | Product # | Description | Used For: |
|--------------------|-----------|------------------------------|---|
| 3/4" to 1" Bushing | 28S-0350 | 3/4" MNPT to 1" FNPT Bushing | Converting 11 Series Nozzle for use on 1" Hose |
| 1" to 3/4" Bushing | 28R-2404 | 1" MNPT x 3/4" FNPT Bushing | Converting 7 Series Nozzle for use on 3/4" Hose |

Materials

Body: Aluminum
Lever & Lever Guard: Duratuff®
Packing: Graphite with Teflon®
Disc: Viton®
Spout: Aluminum
Inlet Size: 3/4" NPT
Weight: 2.73 lbs. each, 43.1 lbs./case of 15
 1.25 kg each, 19.9 kg/case of 15



Features

Safe for Use

- ◆ UL- and ULC-Listed for use in gasoline, diesel, and up to 10% ethanol blends. Specific listings available at www.opwglobal.com.
- ◆ Prevents gasoline spills in prepay or card-lock systems utilizing OPW's unique No Pressure – No Flow Device. The nozzle cannot be opened until the pumping system is pressurized, and closes automatically when the pressure is removed (11B Series only).
- ◆ Prevents consumer from jamming the nozzle in an open position – blocker on lever guard.
- ◆ FlowLock™ allows nozzle to shut-off when falling out of a vehicle, and is tipped up, limiting spillage and unsafe conditions.

Durable and Long-Lasting Design

- ◆ Cycle-tested and proven to last longer than 1 million cycles – better than any other nozzle available on the market today*.

- ◆ Durable lever guard that won't scratch your customers' vehicles – made from Duratuff®.
- ◆ New hold-open clip spring lasts longer than previous designs.

Appealing to Customers

- ◆ Easy to use – utilizing Accu-Stop® to-the-penny Flow Control Technology.
- ◆ Attractive 2-Piece NEWGARD™ Hand Insulator is the most comfortable nozzle in the industry to use.
- ◆ Convenient – one-finger hold-open clip that is easy to set the flow rate (not on all models).

Design working pressure

- ◆ 50 psi (3.45 bar) maximum pressure.

* OPW internal lab testing results as of August 2010.

Replacement Parts

| Name | Product # | Description | Used For: |
|-------------------------|-------------|------------------------------------|---|
| 11A Leaded Spout Kit | 5BS-2110 | 11A, 15/16" O.D. Leaded Spout | 11A Spout Replacement |
| 11AP Unleaded Spout Kit | 5BPS-2117 | 11AP, 13/16" O.D. Unleaded Spout | 11AP Spout Replacement |
| 11B Leaded Spout Kit | 5BBS-2135 | 11B, 15/16" O.D. Leaded Spout | 11B Spout Replacement |
| 11BP Unleaded Spout Kit | 5BBPS-2137 | 11BP, 13/16" O.D. Unleaded Spout | 11BP Spout Replacement |
| NEWGARD Kits | See pg. 153 | Replacement Hand Insulators | 11A, 11AP, 11B, 11BP NEWGARD Replacements |
| Instruction Sheet | H15985M | Installation and Instruction Sheet | 11A, 11AP, 11B, 11BP Instruction Sheet |

Listings and Certifications



See pages 231 - 239 for certification number

NOTE: 11A and 11B nozzles models are available with 1- or 2-piece Hand Insulators.

Ordering Specifications

E-10 Automatic Nozzles with Hold-Open Devices compatible up to E10 (10% Ethanol)

| Hand-warmer Color | 11BP Unleaded 2 Piece Handwarmer | 11BP Unleaded 1 Piece Handwarmer | 11BP AdMaster™ 2 Piece Handwarmer | 11BP 2 Piece Handwarmer Extreme Cold |
|-------------------|----------------------------------|----------------------------------|-----------------------------------|--------------------------------------|
| Green | 11BP-0100 | 11BP-0100-1P | 11BP-0100-AD | 11BP-0100-XC |
| Silver | 11BP-0200 | 11BP-0200-1P | — | — |
| Red | 11BP-0300 | 11BP-0300-1P | 11BP-0300-AD | 11BP-0300-XC |
| Black | 11BP-0400 | 11BP-0400-1P | 11BP-0400-AD | 11BP-0400-XC |
| Blue | 11BP-0500 | 11BP-0500-1P | 11BP-0500-AD | — |
| Gold | 11BP-0750 | 11BP-0750-1P | — | — |
| Orange | 11BP-0800 | 11BP-0800-1P | — | — |
| Yellow | 11BP-0900 | 11BP-0900-1P | 11BP-0900-AD | — |
| Bare | 11BP-0009 | 11BP-0009 | — | — |

Contact Customer Service for special color applications.

E-10 Automatic Nozzles without Hold-Open Devices compatible up to E10 (10% Ethanol)

| Handwarmer Color | 11AP Unleaded* 2 Piece Handwarmer | 11AP Unleaded* 1 Piece Handwarmer | 11AP* AdMaster™ 2 Piece Handwarmer |
|------------------|-----------------------------------|-----------------------------------|------------------------------------|
| Green | 11AP-0100 | 11AP-0100-1P | 11AP-0100-AD |
| Silver | 11AP-0200 | 11AP-0200-1P | — |
| Red | 11AP-0300 | 11AP-0300-1P | 11AP-0300-AD |
| Black | 11AP-0400 | 11AP-0400-1P | 11AP-0400-AD |
| Blue | 11AP-0500 | 11AP-0500-1P | 11AP-0500-AD |
| Gold | 11AP-0750 | 11AP-0750-1P | — |
| Orange | 11AP-0800 | 11AP-0800-1P | — |
| Yellow | 11AP-0900 | 11AP-0900-1P | 11AP-0900-AD |
| Bare | 11AP-0009 | 11AP-0009 | — |

*11A Nozzles are no longer permitted and sold with Hold-Open Clips per UL 2586 requirements.

E-25 Nozzles compatible up to E25 (25% Ethanol)

| Handwarmer Color | 11AP* Unleaded 2 Piece Handwarmer | 11BP Unleaded 2 Piece Handwarmer |
|------------------|-----------------------------------|----------------------------------|
| Green | 11AP-0100-E25 | 11BP-0100-E25 |
| Red | 11AP-0300-E25 | 11BP-0300-E25 |
| Black | 11AP-0400-E25 | 11BP-0400-E25 |
| Blue | 11AP-0500-E25 | 11BP-0500-E25 |
| Orange | 11AP-0800-E25 | 11BP-0800-E25 |
| Yellow | 11AP-0900-E25 | 11BP-0900-E25 |

*11A Nozzles are no longer permitted and sold with Hold-Open Clips per UL 2586 requirements.

E-85 Nozzles compatible up to E85 (100% Ethanol)

| Handwarmer Color | 11BP Unleaded 2 Piece Handwarmer | 11BP AdMaster™ 2 Piece Handwarmer |
|------------------|----------------------------------|-----------------------------------|
| Green | 11BP-0192-E85 | — |
| Red | 11BP-0392-E85 | — |
| Black | 11BP-0492-E85 | 11BP-0492-E85-AD |
| Yellow | 11BP-0992-E85 | 11BP-0992-E85-AD |

B-5 Nozzles compatible up to B5 (5% Biodiesel), Fuel Oil and Kerosene

| Hand-warmer Color | 11A Leaded* 2 Piece Handwarmer | 11A Leaded* 1 Piece Handwarmer | 11A Leaded* AdMaster™ | 11B Leaded 2 Piece Handwarmer | 11B Leaded 1 Piece Handwarmer | 11B Leaded AdMaster™ |
|-------------------|--------------------------------|--------------------------------|-----------------------|-------------------------------|-------------------------------|----------------------|
| Green | 11A-0100 | 11A-0100-1P | 11A-0100-AD | 11B-0100 | 11B-0100-1P | 11B-0100-AD |
| Silver | 11A-0200 | 11A-0200-1P | — | — | 11B-0200-1P | — |
| Red | 11A-0300 | 11A-0300-1P | — | 11B-0300 | 11B-0300-1P | — |
| Black | 11A-0400 | 11A-0400-1P | 11A-0400-AD | 11B-0400 | 11B-0400-1P | 11B-0400-AD |
| Blue | 11A-0500 | 11A-0500-1P | 11A-0500-AD | 11B-0500 | 11B-0500-1P | — |
| Gold | 11A-0750 | 11A-0750-1P | — | 11B-0750 | 11B-0750-1P | — |
| Orange | 11A-0800 | 11A-0800-1P | — | 11B-0800 | 11B-0800-1P | — |
| Yellow | 11A-0900 | 11A-0900-1P | 11A-0900-AD | 11B-0900 | 11B-0900-1P | 11B-0900-AD |
| Bare | 11A-0009 | — | — | 11B-0009 | 11B-0009 | — |

*11A Nozzles are no longer permitted and sold with Hold-Open Clips per UL 2586 requirements.

B-20 Nozzles compatible up to B20 (20% Biodiesel)

| Handwarmer Color | 11A Leaded* 2 Piece Handwarmer | 11B Leaded 2 Piece Handwarmer | 11B Leaded 2 Piece Handwarmer for Extreme Cold |
|------------------|--------------------------------|-------------------------------|--|
| Green | 11A-0100-B20 | 11B-0100-B20 | 11B-0100-XCB20 |
| Black | 11A-0400-B20 | 11B-0400-B20 | 11B-0400-XCB20 |
| Yellow | 11A-0900-B20 | 11B-0900-B20 | 11B-0900-XCB20 |

*11A Nozzles are no longer permitted and sold with Hold-Open Clips per UL 2586 requirements.

WARNING

In order to be UL2586 approved effective April 30, 2015, the use of a Hold-Open device is only permitted on dispensing nozzles equipped with a "B-Cap" (no pressure - no flow) or interlock feature. The use of foreign objects to hold open automatic nozzles could result in shut-off failure and personal injury.

Custom Colors

With minimum quantities.
Contact OPW Customer Service.

| | |
|------------|-----------|
| White | Dark Blue |
| Light Red | Brown |
| Azure Blue | |



**28S-0350
Bushing Adaptor**



**28R-2404
Bushing Adaptor**



OPW 5BS and 5BBS
Leaded, Diesel, Kerosene



OPW 5BBPS and OPW 5BPS
Unleaded

NOTE: See OPW's Website at www.opwglobal.com for product instruction sheets, trouble-shooting guides, how-to-use guide and to view the Do's & Don'ts at the Gas Pump video.



OPW 11A® AND 11B® Automatic Nozzles

The OPW 11® Series automatic nozzles are OPW's premium conventional nozzles for safe retail and commercial petroleum filling. The OPW 11® Series is the most trusted conventional nozzle in the world for full service use. The OPW 11B® Series is designed for use in retail and commercial filling applications including prepay, self and full service, credit/debit card readers or card-lock systems to help prevent gasoline spills. The OPW 11B® will not open until the pumping system is pressurized, and closes automatically when the pressure is removed.

OPW 7H® AND 7HB® Automatic Shut-OFF Nozzles

For Heavy-Duty, High-Flow Truck, Bus and Fleet Service

If you operate a full-service truckstop, refuel your own fleet or manage a card-lock refueling location, the low-cost, long-life and durability of the OPW 7H® high flow nozzle can help increase your productivity, sales and profits. The OPW 7HB® will not open until the pumping system is pressurized, and closes automatically when the pressure is removed.

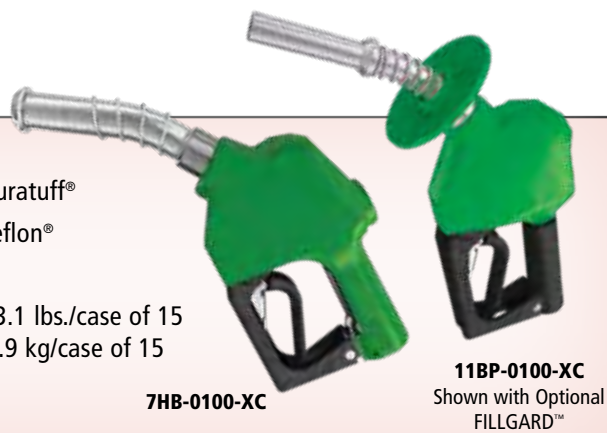
Listings and Certifications



See pages 231 - 239 for certification number

Materials

Body: Aluminum
Lever & Lever Guard: Duratuff®
Packing: Graphite with Teflon®
Disc: Viton®
Weight: 2.73 lbs. each, 43.1 lbs./case of 15
 1.25 kg each, 19.9 kg/case of 15



7HB-0100-XC

11BP-0100-XC
Shown with Optional
FILLGARD™

Nozzles (above) shown with optional hand insulator. Hand insulator not included.

Features

Safe for Use

- ◆ UL-Listed for use in gasoline, diesel, and up to 10% ethanol blends. Specific listings available at www.opwglobal.com
- ◆ Prevents gasoline and/or diesel spills in prepay or card lock systems utilizing OPW's unique No Pressure – No Flow Device. The nozzles cannot be opened until the pumping system is pressurized, and close automatically when the pressure is removed. (OPW 11B® and 7HB® Series Only)
- ◆ Prevents consumer from jamming the nozzle in an open position – Blocker on lever guard.
- ◆ FlowLock™ allows nozzle to shut-off when falling out of

a vehicle, and tipped up limiting spillage and unsafe conditions.

Durable & Long Lasting Design

- ◆ Compatible to -54°C [-65°F]*
- ◆ Cycle-tested and proven to last longer than 1 million cycles - Better than any other nozzle available on the market today*
- ◆ Durable lever guard that won't scratch your customers' vehicles – Made from Duratuff®.
- ◆ New hold open clip spring lasts longer than previous designs. (OPW 11B® and 7HB® Series Only)
- ◆ Easy to use – Utilizing Accu-Stop® to-the-penny Flow Control Technology.

* OPW internal lab testing results as of August 2010.

Ordering Specifications

| Product # | Description |
|----------------|---|
| 11B-0100-XC | Extreme Cold Weather, 3/4" NPT Auto-Diesel Nozzle, 11B, Green |
| 11B-0400-XC | Extreme Cold Weather, 3/4" NPT Auto-Diesel Nozzle, 11B, Black |
| 11B-0900-XC | Extreme Cold Weather, 3/4" NPT Auto-Diesel Nozzle, 11B, Yellow |
| 11BP-0100-XC | Extreme Cold Weather, 3/4" NPT Gasoline Nozzle, 11BP, Green |
| 11BP-0300-XC | Extreme Cold Weather, 3/4" NPT Gasoline Nozzle, 11BP, Red |
| 11BP-0400-XC | Extreme Cold Weather, 3/4" NPT Gasoline Nozzle, 11BP, Black |
| 7HB-0100-XC | Extreme Cold Weather, 1" NPT Diesel Nozzle, 7HB, Green |
| 7HB-0400-XC | Extreme Cold Weather, 1" NPT Diesel Nozzle, 7HB, Black |
| 7HB-0900-XC | Extreme Cold Weather, 1" NPT Diesel Nozzle, 7HB, Yellow |
| 66 REC-1000 | Cold Weather Breakaway – See page 163 |
| 11B-0100-XCB20 | Extreme Cold Weather, 3/4" NPT Auto-Diesel Nozzle, 11B, B20, Green |
| 11B-0400-XCB20 | Extreme Cold Weather, 3/4" NPT Auto-Diesel Nozzle, 11B, B20, Black |
| 11B-0900-XCB20 | Extreme Cold Weather, 3/4" NPT Auto-Diesel Nozzle, 11B, B20, Yellow |

Replacement Parts

| Name | Product # | Description | Used For: |
|--------------------------|-------------|----------------------------------|-------------------------|
| 11AK Leaded Spout Kit | 5BS-2110XC | 11A, 15/16" O.D. Leaded Spout | 11AK Spout Replacement |
| 11AKP Unleaded Spout Kit | 5BPS-2117XC | 11AP, 13/16" O.D. Unleaded Spout | 11AKP Spout Replacement |
| 11B Leaded Spout Kit | 5BBS-2135XC | 11B, 15/16" O.D. Leaded Spout | 11B Spout Replacement |
| 11BP Unleaded Spout Kit | 5BBS-2137XC | 11BP, 13/16" O.D. Unleaded Spout | 11BP Spout Replacement |

*Beginning April 30, 2015; nozzles with Hold-Open clips must have a B-Cap no-pressure no-flow device or an Interlock feature to be UL2586 approved.

Materials

Body: Aluminum w/ nickel plating

Lever & Lever Guard: Duratuff®

Packing: Graphite with Teflon®

Seals: Viton®

Spout: Aluminum w/ nickel plating

Inlet Size: 3/4" NPT

Weight: 2.73 lbs. each
1.25 kg each

11BP-0992-E85



Features

Safe for Use

- ◆ UL-Listed for up to 85% Ethanol.
- ◆ Prevents gasoline spills in prepay or card-lock systems utilizing OPW's unique No Pressure – No Flow Device. It cannot be opened until the pumping system is pressurized, and closes automatically when the pressure is removed.
- ◆ Prevents consumer from jamming the nozzle in an open position – blocker on lever guard.
- ◆ FlowLock™ allows nozzle to shut-off when falling out of a vehicle, and is tipped up, limiting spillage and unsafe conditions.

Durable and Long Lasting Design

- ◆ Cycle-tested and proven to last longer than 1 million cycles – Better than any other nozzle available on the market today*.

- ◆ Durable lever guard that won't scratch your customers' vehicles – made from Duratuff®.
- ◆ New hold-open clip spring lasts longer than previous designs.

Appealing to Customers

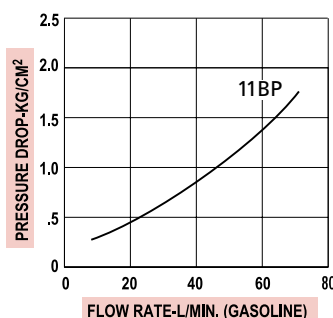
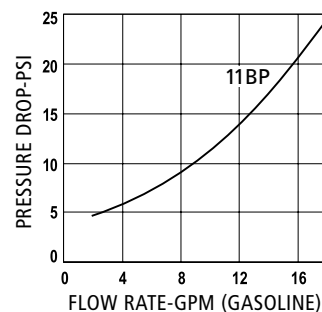
- ◆ Easy to use – utilizing Accu-Stop® to-the-penny Flow Control Technology.
- ◆ Attractive 2-Piece NEWGARD™ Hand Insulator is the most comfortable nozzle in the industry to use.
- ◆ Convenient – one-finger hold-open clip that is easy to set the flow rate (not on all models).

Design working pressure

- ◆ 50 psi (3.45 bar) maximum pressure.
- * OPW internal lab testing results as of August 2010.

OPW 11BP E-85 Series Ethanol Nozzles

The OPW 11BP E-85 Series nozzles are designed and rigorously tested for use in today's alternative fuels. It's the first nozzle of its kind to be UL-Listed for use in Ethanol-blended fuels up to 85%.



Ordering Specifications

E-85 Nozzles compatible up to E85 (85% Ethanol)

| Handwarmer Color | 11BP Unleaded 2 Piece Handwarmer | 11BP AdMaster™ 2 Piece Handwarmer |
|------------------|-------------------------------------|--------------------------------------|
| Green | 11BP-0192-E85 | — |
| Red | 11BP-0392-E85 | — |
| Black | 11BP-0492-E85 | 11BP-0492-E85-AD |
| Yellow | 11BP-0992-E85 | 11BP-0992-E85-AD |

241TPS Ordering Specifications E85 Approved

| Product # | Inlet/Outlet | Length A | Depth B |
|-------------|--|------------------|------------------|
| 241TPS-0492 | 3/4" F x 3/4" M (NPT) 19 mm x 19 mm | 4 7/8" 124 mm | 2 3/16" 56 mm |

Listings and Certifications



UL Listed for up to 85% Ethanol

Replacement Parts

| Product | Product # | O.D. in. mm | Length in. mm | Weight lbs. kg |
|----------------------------|------------|----------------|------------------|-------------------|
| 11BP spout replacement kit | 5BBPI-0492 | 1 3/16" 21 | 7" 178 | .47 .22 |

NEWGARD™ Kits See page 153.

11BP Instruction Sheet Order Number: **H15889PAE**

66V Ordering Specifications E85 Approved

| Product # | Size in. mm | Weight lbs. kg | Pull Force |
|-----------|--------------------------------------|-------------------|------------|
| 66V-0492 | 3/4" F x 3/4" F (NPT) 19 F x 19 F | 0.60 0.27 | 300 lbs. |

66V Series 3/4" Instruction Sheet Order Number: **H10993PA**

Customize and Colorize



Imprint your company logo or custom message to any color hand insulator

OPW can help you enhance your brand image, drive traffic into your store, and deliver important messages to your customers with its new Enhanced Nozzle Program.

Now you can imprint company names, logos and/or special promotional messages on to your nozzles!

Differentiate your store from all others. Choose from a wide array of standard hand insulator colors or create your own custom color hand insulator.

We Offer You The Convenience of Choice.

Simply provide high-resolution PDF your Logo Artwork.



Hundreds of Hand Insulator Colors to Choose From



NEW



Easy Snap-on Rubber Cover

OPW AdMaster™

A highly effective and affordable way of advertising that drives traffic from the island to your in-store profit centers.

- ◆ Installs quickly and easily on your OPW nozzle!
- ◆ Increase In-store Sales - Get Customers from the Island into Your Profit Centers
- ◆ Puts Your Message Right in Your Customer's Hand
- ◆ Replaceable - Easily Updated to Current Promotions
- ◆ Available on New Nozzles or Can Be Installed Quickly on Existing Nozzles
- ◆ Available in a Variety of Colors

Ordering Specifications

| Part # | Description |
|------------------|--|
| 11A-0100-AD | 11A Leaded Nozzle with GREEN Advertising Hand Insulator & Clear Cover |
| 11A-0400-AD | 11A Leaded Nozzle with BLACK Advertising Hand Insulator & Clear Cover |
| 11A-0500-AD | 11A Leaded Nozzle with BLUE Advertising Hand Insulator & Clear Cover |
| 11A-0900-AD | 11A Leaded Nozzle with YELLOW Advertising Hand Insulator & Clear Cover |
| 11AP-0100-AD | 11A Unleaded Nozzle with GREEN Advertising Hand Insulator & Clear Cover |
| 11AP-0300-AD | 11A Unleaded Nozzle with RED Advertising Hand Insulator & Clear Cover |
| 11AP-0400-AD | 11A Unleaded Nozzle with BLACK Advertising Hand Insulator & Clear Cover |
| 11AP-0500-AD | 11A Unleaded Nozzle with BLUE Advertising Hand Insulator & Clear Cover |
| 11AP-0900-AD | 11A Unleaded Nozzle with YELLOW Advertising Hand Insulator & Clear Cover |
| 11B-0100-AD | 11B Leaded Nozzle with GREEN Advertising Hand Insulator & Clear Cover |
| 11B-0400-AD | 11B Leaded Nozzle with BLACK Advertising Hand Insulator & Clear Cover |
| 11B-0900-AD | 11B Leaded Nozzle with YELLOW Advertising Hand Insulator & Clear Cover |
| 11BP-0100-AD | 11B Unleaded Nozzle with GREEN Advertising Hand Insulator & Clear Cover |
| 11BP-0300-AD | 11B Unleaded Nozzle with RED Advertising Hand Insulator & Clear Cover |
| 11BP-0400-AD | 11B Unleaded Nozzle with BLACK Advertising Hand Insulator & Clear Cover |
| 11BP-0500-AD | 11B Unleaded Nozzle with BLUE Advertising Hand Insulator & Clear Cover |
| 11BP-0900-AD | 11B Unleaded Nozzle with YELLOW Advertising Hand Insulator & Clear Cover |
| 11BP-0492-E85-AD | 11BP E-85 Nozzle with BLACK Advertising Hand Insulator and Cover |
| 11BP-0992-E85-AD | 11BP E-85 Nozzle with YELLOW Advertising Hand Insulator and Cover |
| NTK11-0100 | 11 Series GREEN Advertising Insulator and Clear Cover Kit |
| NTK11-0300 | 11 Series RED Advertising Insulator and Clear Cover Kit |
| NTK11-0400 | 11 Series BLACK Advertising Insulator and Clear Cover Kit |
| NTK11-0500 | 11 Series BLUE Advertising Insulator and Clear Cover Kit |
| NTK11-0900 | 11 Series YELLOW Advertising Insulator and Clear Cover Kit |
| 206252 | Clear Cover |



3 in. x 3 in.
Message Area

Clear Cover

OPW Factory Assembled Hose Kits

OPW Hose Kits are factory assembled from the whip hose to the nozzle. Every connection is checked for pressure tightness and continuity. Use the OPW Vac-Assist and Balance Packages when converting or decommissioning your State II Vapor Recovery System.

Features







- ◆ **Factory Assembled**
- ◆ **100% Tested and Certified**
- ◆ **Quick, Easy Installation**
- ◆ **Reduced Dispenser Downtime**







Listings and Certifications



Unleaded and Diesel Packages Include

| | | | |
|----------|--|---------------------------------------|---|
| A | 11BP Nozzle | 3/4" Nozzle |  |
| B | 241TPS-0241 | 3/4" 2-Plane Swivel |  |
| C | 66H-0975 Standard or 66H-0975-LP Low Permeation | 3/4" Whip Hose, 9 inch long, 3/4" NPT |  |
| D | 68EZR-7575 | 3/4" Reconnectable Breakaway |  |
| E | 66H-08575 Standard or 66H-08575-LP Low Permeation | 3/4" Hose, 8-1/2" feet long, 3/4" NPT |  |
| F | FILLGARD™ Splash Guard - Color will match Hand Insulator | |  |

Vac-Assist and Balance Packages Include

| | | | |
|----------|--|---|---|
| A | 11BP Nozzle | 3/4" Nozzle |  |
| B | 241TPS-0241 | 3/4" 2-Plane Swivel |  |
| C | 66H-0975 Standard or 66H-0975-LP Low Permeation | 3/4" Whip Hose, 9 inch long, 3/4" NPT |  |
| D | 68EZR-7575 | 3/4" Reconnectable Breakaway |  |
| E | 66H-08575 Standard or 66H-08575-LP Low Permeation | 3/4" Hose, 8-1/2" feet long, 3/4" NPT |  |
| F | FILLGARD™ Splash Guard - Color will match Hand Insulator | |  |
| G | VAR75* 28C-0028* | Vac-Assist to Conventional Adaptor Balance to Conventional Adaptor |  |

Ordering Specifications

Unleaded Kits

| | |
|---------------|---|
| PK-EZR0100 | 3/4" Unleaded Green Nozzle, Standard Hose |
| PK-EZR0300 | 3/4" Unleaded Red Nozzle, Standard Hose |
| PK-EZR0400 | 3/4" Unleaded Black Nozzle, Standard Hose |
| VA-EZR0400-LP | 3/4" Unleaded Black Nozzle, Low Permeation Hose |

7H High Flow kits also available by request.

Diesel Kits

| | |
|---------------|--|
| PK-EZR0100-L1 | 3/4" Leaded Green Nozzle, Standard Hose |
| PK-EZR0900-L1 | 3/4" Leaded Yellow Nozzle, Standard Hose |
| PK-EZR0400-L1 | 3/4" Leaded Black Nozzle, Standard Hose |

Contact OPW Customer Service for custom models.

Ordering Specifications

Vac-Assist Decommissioning Kits

| | |
|---------------|---|
| VA-EZR0100 | 3/4" Unleaded Green Nozzle, Standard Hose |
| VA-EZR0300 | 3/4" Unleaded Red Nozzle, Standard Hose |
| VA-EZR0400 | 3/4" Unleaded Black Nozzle, Standard Hose |
| VA-EZR0400-LP | 3/4" Unleaded Black Nozzle, Low Permeation Hose |

Balance Decommissioning Kits

| | |
|------------|---|
| BA-EZR0100 | 3/4" Unleaded Green Nozzle, Standard Hose |
| BA-EZR0300 | 3/4" Unleaded Red Nozzle, Standard Hose |
| BA-EZR0400 | 3/4" Unleaded Black Nozzle, Standard Hose |

Contact OPW Customer Service for custom models.

Materials

Body: Aluminum
Lever & Lever Guard: Duratuff®
Packing: Graphite with Teflon®
Disc: Viton®
Spouts: Aluminum
Inlet Size: 3/4" NPT
Weight: 2.85 lbs. each, 44.90 lbs./case of 15
 1.3kg each, 20.4kg/case of 15



Features

- ◆ The new and improved farm hanger is now made from stamped metal and bolted to the nozzle, making it stronger and sturdier than ever.
- ◆ UL- and ULC-Listed for use in gasoline, diesel and up to 10% ethanol blends. Specific listings available at www.opwglobal.com.
- ◆ New bleeder poppet orifices allow for use in transfer pumps with or without air elimination systems.
- ◆ Prevents consumer from jamming the nozzle in an open position – blocker on lever guard.
- ◆ Durable lever guard that won't scratch

your customers' vehicles – made from Duratuff®.

- ◆ Easy to use – utilizing Accu-Stop® to-the-penny Flow Control Technology.
- ◆ Works with self-priming and non self-priming pumps.

Design working pressure

- ◆ 50 psi (3.45 bar) maximum pressure.
- ◆ When bushing from 1" hose on the 1A nozzle, use a 28S Bushing Adaptor

Ordering Specifications

| Full Hand Insulator Color | Includes spout, hanger, spring and no hold-open rack UL Listed | | Includes spout, standard spring and no hold-open rack UL Listed | | Includes spout, hanger, spring and no hold-open rack UL and ULC Listed | |
|---------------------------|---|--------------------|--|--------------------|---|--------------------|
| | For Unleaded Service | For Diesel Service | For Unleaded Service | For Diesel Service | For Unleaded Service | For Diesel Service |
| Green | 11AF-10FS | | | | | |
| Red | 11APF-30FS | | 11APF-300F | 11AF-300F | | |
| Black | 11APF-40FS | 11AF-40FS | | | 11APF-4FSC | 11AF-4FSC |

*Nozzles without a no-pressure no-flow or interlock device can not be ULC listed with Hold-Open Clips.

Replacement Spout Kits

| Product # | O.D. | | Length | | Weight | | Used On |
|-----------|-------------------------------|----|--------|-----|--------|-----|---------|
| | in. | mm | in. | mm | lbs. | kg | |
| 5BF-0112 | ¹⁵ / ₁₆ | 24 | 7 | 178 | .59 | .27 | 11AF® |
| 5BPF-0172 | ¹³ / ₁₆ | 21 | 7 | 178 | .59 | .27 | 11APF |

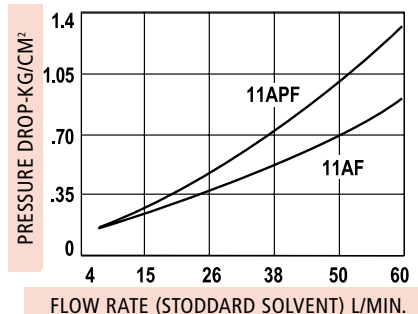
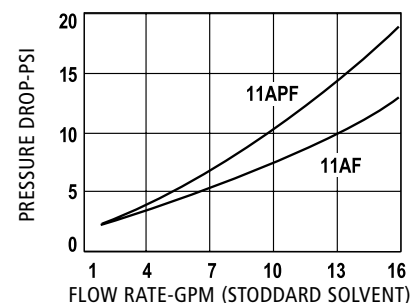
NEWGARD™ Kits See page 153.

OPW 11AF® 3/4" Automatic Nozzles

The OPW 11AF® Nozzle is a sturdy industry-proven standard used primarily for fueling up to 15 gallons per minute. The 11AF® is an automatic dispensing nozzle designed for use in transfer pump. This nozzle should not be used for retail applications, and does not include a No Pressure – No Flow or Interlock Device.

WARNING

Do not use OPW 11AF Nozzles for any retail application. It is only intended for use in non-retail applications. Use of foreign objects to hold open automatic nozzles could result in failure to shut off and personal injury.



28S-0350
Bushing Adaptor



28R-2404
Bushing Adaptor

Listings and Certifications

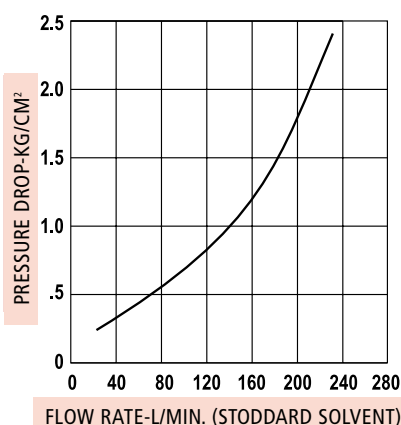
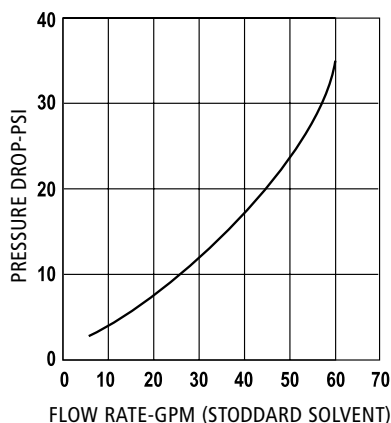


See pages 231 - 239 for certification number

OPW 7H® and 7HB® Automatic Shut-off Nozzles

For Heavy-Duty, High-Flow Truck, Bus and Fleet Service

If you operate a full-service truckstop, refuel your own fleet or manage a card-lock refueling location, the low-cost, long-life and durability of the OPW 7H® high-flow nozzle can help increase your productivity, sales and profits.



Materials

Body: Aluminum
Lever & Lever Guard: Duratuff®
Packing: Graphite with Teflon®
Disc: Viton®
Spout: Aluminum
Inlet Size: 1" NPT
Weight: 3.35 lbs. each, 52.05 lbs./case of 15
 1.51 kg each, 23.6 kg/case of 15

Features

Safe for Use

- ◆ UL- and ULC-Listed for use in gasoline, diesel and up to 10% ethanol blends. Specific listings available at www.opwglobal.com.
- ◆ Prevents gasoline spills in prepay or card-lock systems utilizing OPW's unique No Pressure – No Flow Device. The nozzle cannot be opened until the pumping system is pressurized, and closes automatically when the pressure is removed. (7HB Series only)
- ◆ Prevents consumer from jamming the nozzle in an open position – blocker on lever guard.
- ◆ FlowLock™ allows nozzle to shut-off when falling out of a fill pipe, and is tipped up, limiting spillage and unsafe conditions.
- ◆ Low reliable shut-off – specifically designed to ensure proper automatic shut-off as low as 5 gallons per minute.

Durable and Long Lasting Design

- ◆ Cycle-tested and proven to last longer than 1 million cycles – better than any other nozzle available on the market today.*

FIRST to Meet NEW UL 2586 Requirements



- ◆ Durable lever guard that won't scratch your customers' vehicles – made from Duratuff®.
- ◆ New hold-open clip spring lasts longer than previous designs.

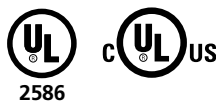
Appealing to Customers

- ◆ Easy to use – utilizing Accu-Stop® to-the-penny Flow Control Technology.
- ◆ Easy to open, even at high pressures, utilizing Dual Poppets.
- ◆ Even, smooth spray pattern – minimizes diesel foaming and false shut-offs.
- ◆ Smooth closing action and reduced line shock from incorporated dashpot technology.
- ◆ Convenient – one-finger hold-open clip that is easy to set the flow rate. (not on all models)
- ◆ Spout Retaining Ring – adds extra measure in securing nozzle spout in fill pipe where required. (not on all models)

Design working pressure

- ◆ 50 psi (3.45 bar) maximum pressure.
- * OPW internal lab testing results as of August 2010.

Listings and Certifications



See pages 231 - 239 for certification number

⚠ WARNING

In order to be UL2586 approved effective April 30, 2015, the use of a Hold-Open device is only permitted on dispensing nozzles equipped with a "B-Cap" (no pressure - no flow) or interlock feature. The use of foreign objects to hold open automatic nozzles could result in shut-off failure and personal injury.

Ordering Specifications

B-5 Nozzles compatible up to B5 (5% Biodiesel), Fuel Oil and Kerosene

| Handwarmer Color | 7H® with Spout Ring | 7H® without Spout Ring | 7HB® with Spout Ring | 7HB® without Spout Ring |
|------------------|---------------------|------------------------|----------------------|-------------------------|
| Green | 7H-0100 | 7H-5100 | 7HB-0100 | 7HB-5100 |
| Black | 7H-0400 | 7H-5400 | 7HB-0400 | 7HB-5400 |
| Yellow | 7H-0900 | 7H-5900 | 7HB-0900 | 7HB-5900 |
| Bare | — | — | 7HB-0090 | 7HB-5009 |

NOTE: All new 7H and 7HB nozzles now come with FILLGARD™. For replacement FILLGARDs, see page 153.
 *7H Nozzles are no longer permitted and sold with Hold-Open Clips per UL 2586 requirements.

Custom Colors

With minimum quantities.
 Contact OPW customer service.

Blue

Red

Silver

B-20 Nozzles compatible up to B20 (20% Biodiesel)

| Handwarmer Color | 7H® with Spout Ring | 7H® without Spout Ring | 7HB® with Spout Ring | 7HB® without Spout Ring |
|------------------|---------------------|------------------------|----------------------|-------------------------|
| Green | 7H-0100-B20 | 7H-5100-B20 | 7HB-0100-B20 | 7HB-5100-B20 |
| Black | 7H-0400-B20 | 7H-5400-B20 | 7HB-0400-B20 | 7HB-5400-B20 |
| Yellow | 7H-0900-B20 | 7H-5900-B20 | 7HB-0900-B20 | 7HB-5900-B20 |

NOTE: All new 7H and 7HB nozzles now come with FILLGARD™. For replacement FILLGARDs, see page 153.
 *7H Nozzles are no longer permitted and sold with Hold-Open Clips per UL 2586 requirements.

Replacement Parts

| Product | Part # | O.D.* | | Length | | Weight | | Used On |
|-----------------------------|-----------|---------|----|--------|-----|--------|-----|----------------|
| | | in. | mm | in. | mm | lbs. | kg | |
| 7H Spout Kit w/ spout ring | 5BH-0115 | 1 3/16* | 30 | 7 | 178 | .66 | .30 | 7H® |
| 7H Spout Kit w/o spout ring | 5BH-5115 | 1 3/16 | 30 | 7 | 178 | .66 | .30 | 7H® (w/o ring) |
| 12-inch 7H Spout Kit | 5BHB-0125 | 1 3/16 | 30 | 12 | 305 | | | 7H® |

NEWGARD™ Kits See page 153

| Product | Part # | O.D.* | | Length | | Weight | | Used On |
|------------------------------|-----------|---------|----|--------|-----|--------|-----|-----------------|
| | | in. | mm | in. | mm | lbs. | kg | |
| 7HB Spout Kit w/ spout ring | 5BBH-0136 | 1 3/16* | 30 | 7 | 178 | .65 | .30 | 7HB® |
| 7HB Spout Kit w/o spout ring | 5BBH-5136 | 1 3/16 | 30 | 7 | 178 | .66 | .30 | 7HB® (w/o ring) |

NEWGARD™ Kits See page 153

* Spout end with anchor ring is 1 31/64" O.D.

7H®, 7HB® Series Instruction Sheet Order Number: **H15985M**



OPW 5BH
7H® Spout with ring



OPW 5BBH
7HB® Spout without ring

NOTE: See OPW's Website at www.opwglobal.com for product instruction sheets, trouble-shooting guides, how-to-use guide and to view the Do's & Don'ts at the Gas Pump video.

OPW NEWGARD™ Full Hand Insulator

All OPW 7 Series, Astro Series, and 1A Series nozzles are furnished complete with NEWGARD™ hand insulators. Available in a variety of colors.

OPW NEWGARD™ Two-Piece Hand Insulator

OPW 11A® and 11B® nozzles are furnished complete with NEWGARD™ 2-piece hand insulators. For a more unique appearance, try our new two-piece design. OPW NEWGARD™ 2-piece hand insulators make it easy to match new color schemes or replace soiled insulators without removing the nozzle from the hose.

OPW 8 FILLGARD™ Splash Guard

FILLGARD™ also enhances the appearance of your gasoline nozzle, and makes dispensing gasoline more pleasant for your customers. FILLGARD™ won't deform or crack in cold weather. FILLGARD™ is not standard on new 7 Series nozzles.



Ordering Specifications

| Hand Insulator Color | NEWGARD™ 1 piece | | | | NEWGARD™ 2 piece | | FILLGARD™ | |
|-------------------------|------------------|---------|---------|---------|------------------|---------|-------------|------------|
| | 11A® | 11B® | 7H® | 7HB® | 11A® | 11B® | 11A® & 11B® | 7H® / 7HB® |
| Green | D01246M | C03647M | E00307M | E00325M | D01773M | D01529M | 8G-0100 | 8HG-0100 |
| Silver | D01174M | C03648M | 207113 | | 205217 | D02078M | 8S-0200 | |
| Red | D00907M | E00304M | | 211218 | D01775M | D01789M | 8R-0300 | 8HR-0300 |
| Black | D00909M | E00308M | E00306M | E00324M | D01719M | D01532M | 8BL-0400 | 8HBL-0400 |
| Blue | D00908M | C03649M | | H14846M | D01774M | D01790M | 8B-0500 | |
| Yellow | D00917M | C03655M | E00368M | H11923M | D01776M | D01791M | 8Y-0900 | 8HY-0900 |
| Gold | D01295M | C03653M | | | 205219 | 205206 | 8GL-0750 | |
| Orange | D01245M | C03654M | 205598 | 205599 | 205248 | 205252 | 8O-0800 | 8HO-0800 |
| | | | | | D01530M Barrel | | | |

Note: Barrel and Hand Insulator sold separately.

Custom Colors: With minimum quantities. Contact OPW Customer Service.

| | | |
|------------------------------------|-------------------------------------|--------------------------------|
| <input type="checkbox"/> White | <input type="checkbox"/> Azure Blue | <input type="checkbox"/> Brown |
| <input type="checkbox"/> Light Red | <input type="checkbox"/> Dark Blue | |

Notes:

- 1) OPW may add or delete colors without notice.
- 2) Actual color may vary from production run to production run.
- 3) Custom colors available, minimum quantities applicable.**
- 4) Custom logos available for additional charge.**

** For ordering specifications not listed in this catalog, visit our website at www.opwglobal.com or contact Customer Service at 1-800-422-2525.

Materials

Body: Special resin coated aluminum

Lever & Lever Guard: Duratuff®

Seals: Viton®

Inlet Size: M34

(adaptor required for each nozzle)

Weight: 2.41 lbs. each, 36 lbs./case of 15
1.1 kg each, 16.5 kg/case of 15

Meets ISO 22241
Compatibility
Testing for DEF
Contamination

21Gu-0500



Mis-Filling Prevention
Device (MFPD)

Features – Benefits

- ◆ Automatic Shutoff Feature shuts off nozzle when the tank is full
- ◆ Mis-filling prevention device eliminates the risk of accidental DEF filling or environmental contamination.
- ◆ Spout with magnetic interface prevents mis-filling mishaps.
- ◆ Durable streamlined nozzle design for easy, comfortable nozzle handling makes it easy to differentiate DEF products.
- ◆ Total end-to-end affordable solution is a convenient and complete system from the Industry Leader.

- ◆ Comes with Integral Contaminant-Prevention Filter; this replaceable, stainless steel, 40-mesh filter provides an added level of protection against DEF contaminants.
- ◆ Outfitted in that familiar and unmistakable "DEF Blue" with slogan badge for instant product identification.



21GU-FLTR



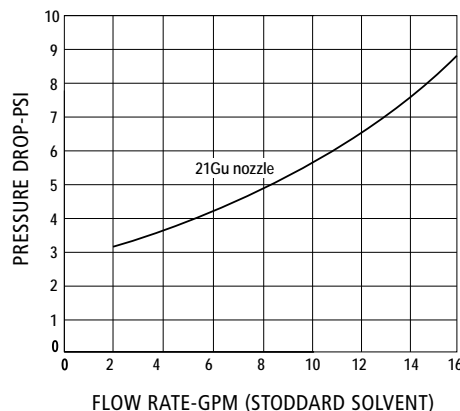
Maximum pressure and flow rate

- ◆ 40 psi (2.75 bar) maximum pressure.
- ◆ 10 gpm (37.8 lpm) maximum flow rate

OPW 21Gu™ DEF Nozzle

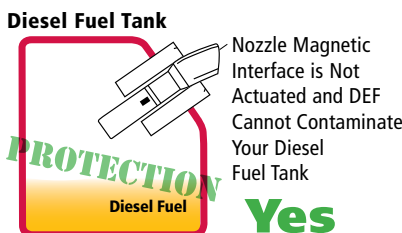
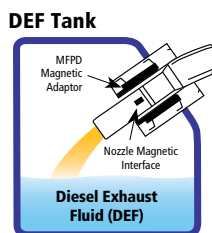
The Industry's Most Comprehensive DEF-Filling Solution

- ◆ End-to-end dispensing hardware solution for reliable, efficient DEF-filling
- ◆ Industry standard DEF-filling solution in Europe
- ◆ Unique Mis-Filling Prevention Device (MFPD) provides unparalleled filling assurance and peace of mind
- ◆ Affordable mis-filling prevention insurance designed to protect your investment against potential mis-filling mishaps



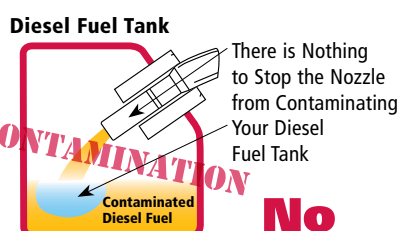
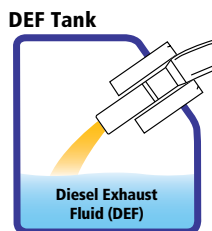
MIS-FILLING PREVENTION

WITH the OPW 21Gu nozzle and Mis-Filling Prevention Device (MFPD), your investment is safe.



Other DEF Nozzle

WITHOUT the OPW 21Gu nozzle and Mis-Filling Prevention Device (MFPD), your investment is at risk.



Are You Protected?

A fixed magnetic field within the Mis-Filling Prevention Device actuates a magnetic interface in the spout of the 21Gu nozzle to allow the flow of DEF. Without the Mis-Filling Prevention Device, the DEF nozzle will not flow. Put the nozzle in the wrong tank – say, your diesel tank – no problem, the nozzle will not flow. No other DEF-filling nozzle has this DEF mis-filling protection capability.

Listings and Certifications ISO 22241 Compliant

Nozzle Ordering Specifications

| Product # | Description |
|-----------|--|
| 21GU-0400 | Wayne® / Bennett® / Gasboy® (Model 9862XX-ZWW) Nozzle designed for use WITHOUT Mis-Filling Prevention Device |
| 21GU-040G | Gilbarco® / Gasboy® (Model 9862KX-Z) Nozzle designed for use WITHOUT Mis-Filling Prevention Device |
| 21GU-0500 | Wayne® / Bennett® / Gasboy® (Model 9862XX-ZWW) Nozzle designed for use WITH Mis-Filling Prevention Device |
| 21GU-050G | Gilbarco® / Gasboy® (Model 9862KX-Z) Nozzle designed for use WITH Mis-Filling Prevention Device |

NOTE: Each nozzle requires one adaptor fitting to convert from M34 to 1" BSPP threads.

Replacement Parts

| Product # | Description |
|--------------|---|
| 206466 | 21GU-0500 & 050G Blue Hand Insulator |
| 205077 | 21GU-0400 & 040G Black Hand Insulator |
| 21GU-SPOUT | DEF Replacement Spout designed for use WITH Mis-Filling Prevention Device |
| 21GU-SPOUT-N | DEF Replacement Spout WITHOUT Mis-Filling Prevention Device |
| 204133 | DEF Replacement Slogan Badge |
| 21GU-FLTR | Strainer and Spacer Washer |



Bennett®, Separation by Design®, Wayne® Guard (Standard) and Gasboy®



Gilbarco® Guard

21GU-SSB

Stainless Steel Swivel / Reconnectable Breakaway

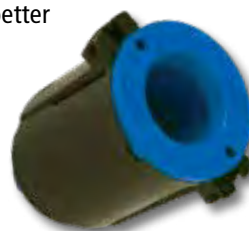
Features

- ◆ SST construction and compatible with ISO 22241 Standard
- ◆ Converts nozzle from M34 threads to 1" BSPP
- ◆ Integral reconnectable breakaway 175-330 (lbs.) 80-150 (kg)
- ◆ Includes 21GU-BCS for attractive installation and protection of vehicles



OPW MIS-FILLING PREVENTION DEVICE (MFPD)

DEF mis-filling can be expensive. The OPW 21Gu MFPD offers the industry's most effective and affordable insurance policy against mis-filling mishaps – actually stopping them before they happen. There is no better way to protect your investment and the environment.



21Gu Nozzle Adaptor Ordering Specifications

| Product # | Description |
|-----------|--|
| 21GU-SSB | DEF Stainless Steel Reconnectable Breakaway / Swivel - NOTE: One (1) 21GU-SSB is required for each nozzle. Hose connection end is 1" BSPP male thread. |
| 21GU-SCS | Replacement DEF Swivel Cover Sleeve |
| 21GU-BCS | Replacement DEF Swivel/Breakaway Cover Sleeve (Comes with 21GU-SSB) |

21Gu Mis-Filling Prevention Device

| Product # | Description |
|-----------|---|
| MFPD | 21GU Mis-Filling Prevention Device (MFPD). Order one MFPD or Bulk Packed for OEM sales (420 per case) NOTE: The MFPD is permanently installed in DEF tank fill pipe. Contact your vehicle supplier and specify the OPW DEF Mis-Filling Prevention Device. |
| MFPD-Pak | Retail Packaged Mis-Fill Prevention (Each) |

Note: Want them individually packaged for retail? Contact OPW customer service at 1-800-422-2525.

Materials

Hose:

O.D.: 1" (26 mm)

I.D.: 5/8" (16 mm)

Minimum bend radius: 3-1/2" (90 mm)

Thread connections: 1" BSPP female at both ends

Torque specification: 30-37 ft. lbs (40-50 Nm)



Features

- ◆ Specially designed for DEF-flow applications.
- ◆ Lightweight and highly flexible for easy customer handling.
- ◆ Smooth bore, seamless fluoropolymer lining for exceptional flow performance.
- ◆ Swivel end couplings provide for easy installation.
- ◆ Durable, reliable, long-life performance and maximum flow efficiency.
- ◆ Anti-kinking sleeve at nozzle end to reduce wear on hose during use.

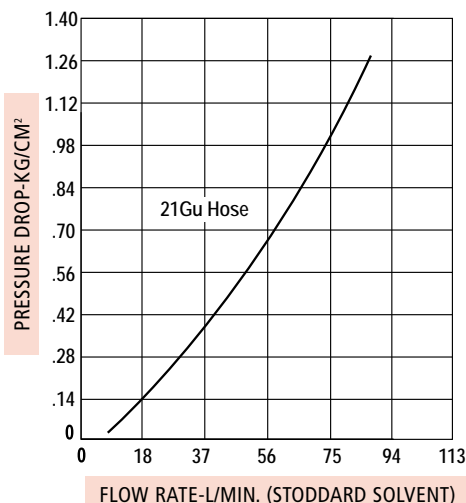
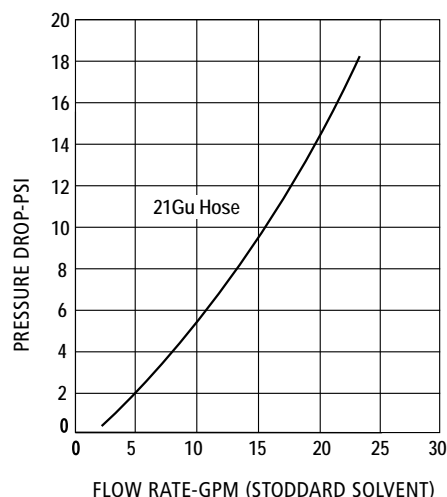
Ordering Specifications

| Product # | Description |
|-----------|--|
| 21GU-H8 | DEF Hose Assembly, 8 ft. |
| 21GU-H11 | DEF Hose Assembly, 11 ft. for Bennett® & Gasboy® Dispensers |
| 21GU-H12 | DEF Hose Assembly, 12 ft. |
| 21GU-H15 | DEF Hose Assembly, 15 ft. for Separation by Design® Dispensers |
| 21GU-H17G | DEF Hose Assembly, 17.4 ft. for Gilbarco® Retail and Wayne® Dispensers |
| 21GU-H21 | DEF Hose Assembly, 21 ft. |
| 21GU-HRS | DEF Hose Replacement Seals (10 per pack) |
| 204129 | DEF Hose Coupling (comes with hose seal) |
| 204130 | DEF Anti-kinking Sleeve |

Note: Need a different custom length? Contact OPW customer service at 1-800-422-2525.

OPW 21Gu Hose Assembly

The OPW 21Gu Series DEF Hose is the de facto standard for hoses in Europe. Designed with integral swivel couplings and an anti-kinking sleeve, the 21Gu hose is easy to install and use. The OPW 21Gu Hose meets compatibility testing as specified in ISO 22241 so that you can rest assured that your hose will last.

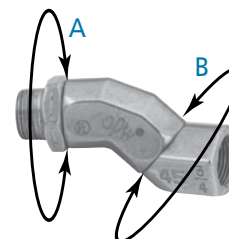
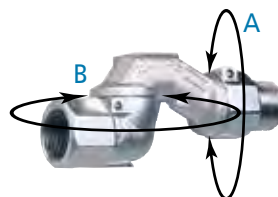


Conventional Swivels & Breakaways



- Swivel Breakaway Selection Chart..... 158
- Hose Swivels..... 159-160
- Swivel/Breakaways 161
- Reconnectable Breakaways 162-165
- Single Use Breakaways..... 163
- 66H Series Hose..... 165

SWIVELS



| Model | 365 | 241TPS | 45 |
|-------------------------------------|-----------------------------|-----------------------------|--------------------|
| Rotation A | 360° | 360° | 360° |
| Rotation B | N/A | 270° | 360° |
| O-Ring Design | Dual O-Ring – Viton®/Buna-N | Dual O-Ring – Viton®/Buna-N | Dual Seal – Viton® |
| ³ / ₄ " Model | Yes | Yes | Yes |
| 1" Model | Yes | Yes | Yes |
| Page | 159 | 160 | 159 |
| Cold Weather Option | No | No | Yes |

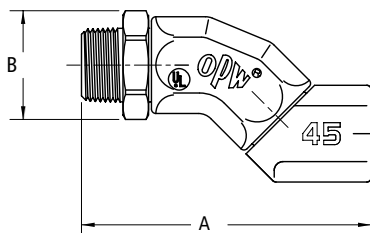
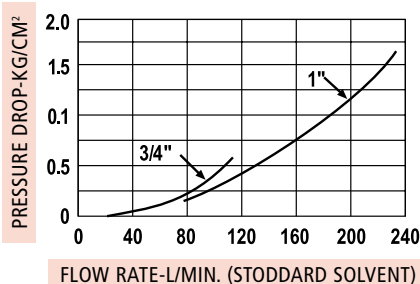
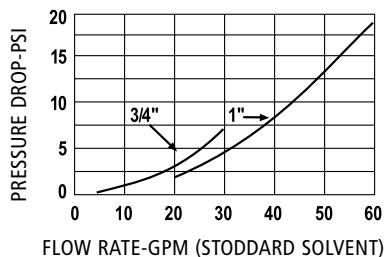
BREAKAWAYS



| Model | 66V | 68EZR | 66REC | 66SB |
|-------------------------------------|---|---|---|---|
| Style | Single Use | Reconnectable | Reconnectable | Reconnectable |
| Cost | <ul style="list-style-type: none"> • Low Initial Unit Cost • Requires Service Call To Replace | <ul style="list-style-type: none"> • Higher Initial Unit Cost • No Service Call Required To Reconnect | <ul style="list-style-type: none"> • Higher Initial Unit Cost • No Service Call Required To Reconnect | <ul style="list-style-type: none"> • Higher Initial Unit Cost • No Service Call Required To Reconnect |
| Application | <ul style="list-style-type: none"> • High Hose Dispensing • Requires Whip Hose | <ul style="list-style-type: none"> • High Hose Dispensing • Requires Whip Hose | <ul style="list-style-type: none"> • High Hose Dispensing • Requires Whip Hose | <ul style="list-style-type: none"> • No Whip Hose Required |
| ³ / ₄ " Model | Yes | Yes | Yes | Yes |
| 1" Model | Yes | Yes | N/A | Yes |
| Other Features | Available with a Whip Hose Combination | Audible Click | Audible Click | Combines Swivel & Breakaway |
| Page | 163 | 162 | 163 | 161 |
| Cold Weather Option | No | Yes | Yes | Yes |

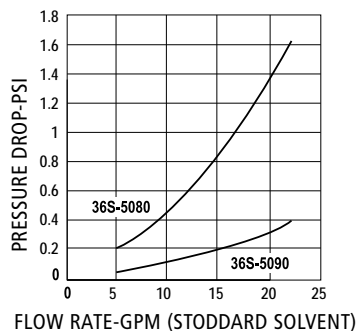
OPW 45 Hose Swivel

The OPW 45 swivel is designed for gasoline self-service applications where easy nozzle and hose handling is important for customer convenience. The 45 is installed between the nozzle and hose to reduce strain, providing flexibility so fueling hoses last longer.



OPW 36S Hose Swivel

Designed for use with fuel oil nozzles (at inlet only), the OPW 36S provides 360° swivel action. The full-circle swivel reduces the physical strain of aligning the nozzle with the fillpipe.



Materials

Body: Aluminum

Outlet Adaptor: Zinc

Inlet Adaptor: Zinc

Seals: Buna-N

Weight: 3/4": .65 lbs. each; 30 kg
1": 1.16 lbs. each; .53 kg

Packed: 20 per Case (45-5060)
30 per Case (45-5075)



OPW 45

Features

- ◆ UL and ULC listed for use in gasoline, diesel, and up to 10% ethanol blends. Specific listings available at www.opwglobal.com.
- ◆ Compact, attractive profile for a sleek, modern appearance.
- ◆ Secure design not repairable or rebuildable for certainty of operation. Every OPW 45 is factory assembled and tested.
- ◆ Better flow performance less restriction means higher refueling speeds.
- ◆ Unique 2 planes of rotation for easy nozzle positioning and hose life.
- ◆ 50 psi (3.45 bar) maximum pressure.

Ordering Specifications

| Product # | Size | Overall Length | Across Corners | Weight | |
|-------------|-----------------------|----------------|----------------|--------|-----|
| | | A | B | lbs. | kg |
| 45-5060 | 3/4" F x 3/4" M (NPT) | 4 1/8" | 1 9/16" | .65 | .30 |
| 20 per case | 19 mm x 19 mm | 105 mm | 40 mm | | |
| 45-5075 | 1" F x 1" M (NPT) | 4 3/4" | 1 7/8" | 1.16 | .53 |
| 20 per case | 25 mm x 25 mm | 121 mm | 48 mm | | |

Materials

Body: Aluminum

Adaptor: Zinc
Aluminum

Seals: Buna-N O-Ring,
Viton® O-Ring

Bearings: Nylon

36S-5080



Ordering Specifications

| Product Number | Inlet Thread x Outlet Thread | lbs. | kg |
|----------------|------------------------------|------|------|
| 36S-5080 | 3/4" M x 3/4" F (NPT) | 0.30 | 0.14 |
| | (19 mm x 19 mm) | | |
| 36S-5090 | 1" M x 1" F (NPT) | 0.40 | 0.18 |
| | (25 mm x 25 mm) | | |

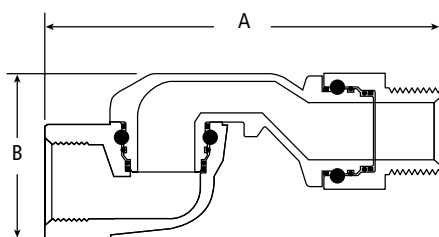
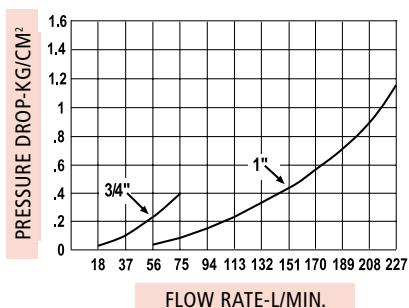
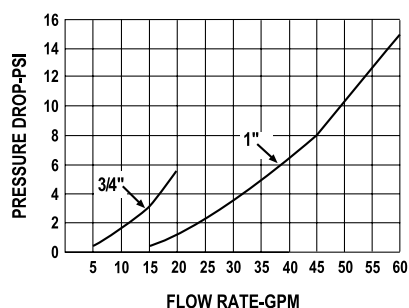
Listings and Certifications



NOTE: See OPW's Website at www.opwglobal.com for product instruction sheets, trouble-shooting guides, how-to-use guide and to view the Do's & Don'ts at the Gas Pump video.

OPW 241TPS Series Hose Swivels

The OPW 241TPS Series of swivels are designed and rigorously tested for applications where easy nozzle and hose handling is important for customer convenience. Swivels are installed in between the nozzle and the hose to provide flexibility in the system to reduce customer strain, position the nozzle properly and reduce premature hose wear.



Materials

Body: Aluminum
Inlet Adaptor: Zinc
Outlet Adaptor: Zinc
Seals: Buna-N, Viton®
Bearing: Nylon
Weight: 3/4": .65 lbs., .30 kg
 1": 1.55 lbs., .703 kg
Packed: 60 per Case



Features

- ◆ UL and ULC listed for use in gasoline, diesel, and up to 10% ethanol blends. Specific listings available at www.opwglobal.com.
- ◆ Allows for easy nozzle positioning in fill pipes – utilizing two planes of rotation.
- ◆ Reduces premature hose wear – utilizing two planes of rotation.
- ◆ Added protection vs. thermal and chemical degradation – Dual Seals.
- ◆ 50 psi (3.45 bar) maximum pressure.

Ordering Specifications

| Product # | Inlet/Outlet | Length A | Depth B |
|-------------------------|-----------------------|-------------|------------|
| 241TPS-0241 | 3/4" F x 3/4" M (NPT) | 4 7/8" | 2 3/16" |
| 241TPS-0492* (E85) | | | |
| 241TPS-75RF** (E25/B20) | 19 mm x 19 mm | 124 mm | 56 mm |
| 241TPS-1000 | 1" F x 1" M (NPT) | 6 1/32" | 2 11/32" |
| 241TPS-10RF*** (B20) | 25 mm x 25 mm | 153 mm | 64 mm |

*241TPS-0492 is UL Listed for up to 85% Ethanol.

**241TPS-75RF is UL Listed for up to 25% Ethanol and 20% Biodiesel.

***241TPS-10RF is UL Listed for up to 20% Biodiesel.

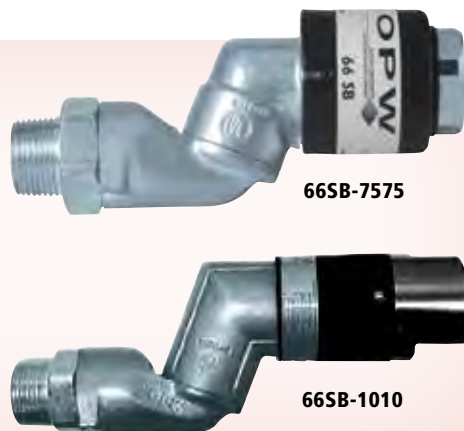
Listings and Certifications



NOTE: See OPW's Website at www.opwglobal.com for product instruction sheets, trouble-shooting guides, how-to-use guide and to view the Do's & Don'ts at the Gas Pump video.

Materials

Body: Aluminum
Sleeve: Nylon, HDPE
Seals: Viton®
Spring: Stainless steel
Poppet: Aluminum
Packed: 20 per Case



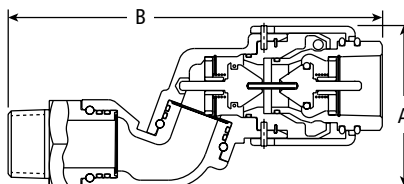
Features

- ◆ UL and ULC listed for use in gasoline, diesel and up to 10% ethanol blends. Specific listings available at www.opwglobal.com.
- ◆ Pull Force – the 66SB will break away with a pull force of no more than 350 lbs.
- ◆ Easily Reconnected at Waist Height – after relieving line pressure, simply push coupling halves together until latched. Reconnection force is approximately 15 lbs.
- ◆ Protected Coupling and Poppet – the breakaway's poppet and sealing surface are protected from impact during separation by a plastic sleeve.

- ◆ Reduces Connections – the single-unit design replaces the standard swivel, breakaway and whip hose, eliminating possible leak points.
- ◆ Double O-Ring Seal – both swivel joints are protected by a double O-Ring design.

Design working pressure

- ◆ 50 psi (3.45 bar) maximum pressure.



Ordering Specifications

| Product # | Size | Weight | |
|-----------|-------------------|--------|------|
| | | lbs. | kg |
| 66SB-7575 | 3/4" x 3/4" (NPT) | 1 | 0.45 |
| 66SB-1010 | 1" x 1" (NPT) | 1.82 | 0.83 |

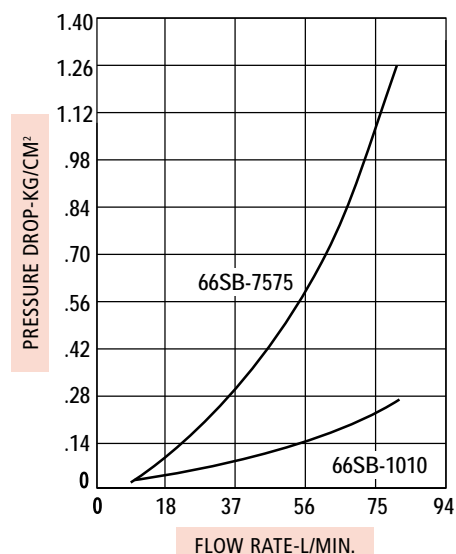
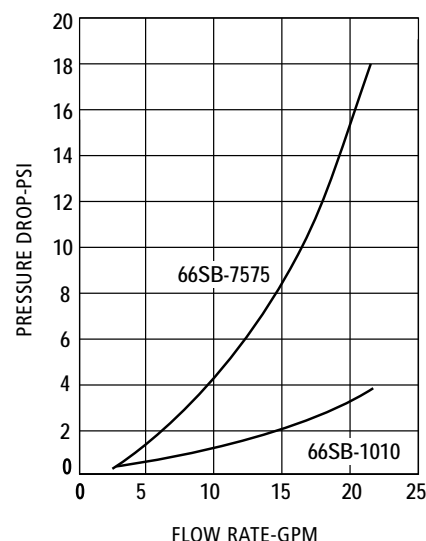
Dimensions

| Product # | A | | B | |
|-----------|----------|----|----------|-----|
| | in. | mm | in. | mm |
| 66SB-7575 | 2 1/2" | 64 | 5 29/32" | 150 |
| 66SB-1010 | 3 11/32" | 85 | 8 1/2" | 216 |

66SB Instruction Sheet Order Number: **F-69**

OPW 66SB Swivel Breakaway

The OPW 66SB Swivel Breakaway is intended for easy installation at the nozzle inlet. The compact, lightweight design incorporates a 360° swivel rotation at both the male end and middle joint, with a simple and easily-reconnectable breakaway on the opposite end.

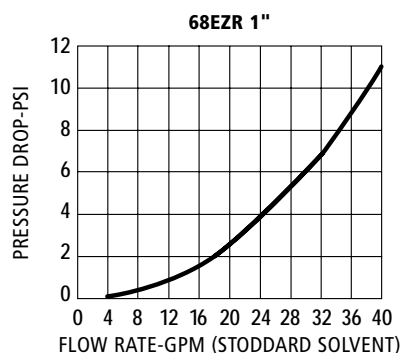
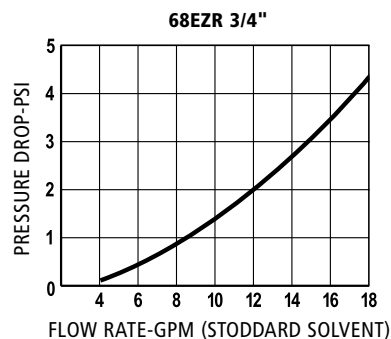


Listings and Certifications



OPW 68EZR Series 3/4" and 1" Dry Reconnectable Breakaway

The OPW 68EZR Reconnectable Breakaway has been designed for retail fueling operations to deliver an increased level of security in the event of a drive off. Not only is it the fastest and easiest breakaway in the industry to reconnect, but also the one that delivers the greatest peace of mind that it is securely reconnected. Built on the 66REC breakaway technology platform, the 68EZR delivers trusted OPW quality and proven technology at the lowest cost of ownership. The 68EZR is installed on fuel dispensing hoses and will separate when subjected to a designated pull force. Upon separation, the dual valves seat automatically, stopping the flow of fuel and limiting any fuel spillage, while protecting the dispensing equipment. For proper operation on high-hanging hoses, the OPW 68EZR must always be installed with a "straightening" hose, such as the OPW 66H. For low hose applications, the OPW 68EZR should be installed downstream of the retractor cable.



Materials

3/4" 68EZR

Body: Die-cast zinc
Protective Sleeves: Impact Resistant Super-tough Nylon
Main Seals: Viton® & Fluorosilicone
Main Spring: Stainless steel
Guide and Poppets: Acetal / Delrin
Packed: 20 per Case

1" 68EZR

Body: Aluminum
Protective Sleeves: Impact Resistant Super-tough Nylon
Main Seals: Viton® & Fluorosilicone
Main Spring: Stainless steel
Guide and Poppets: Acetal / Delrin
Packed: 20 per Case



Features

- ◆ UL and ULC listed for use in gasoline, ethanol blends up to 25% (E25), diesel, and biodiesel blends up to 20% (B20). Specific listings available at www.opwglobal.com.
- ◆ Pull Force – the 68EZR will break away with a pull force of no more than 350 lbs.
- ◆ Unique Double-Poppet Design – features low pressure drop.
- ◆ Coupling Halves – protected by proven plastic sleeves.
- ◆ Easily Reconnected – features "Push-Twist-Click" technology; simply realign the valve, push in and then twist until you hear the audible click.
- ◆ Cold weather compatible
- ◆ Reconnection force of approximately 7 lbs.
- ◆ Line Shock – the OPW 68EZR is able to absorb the effects of normal line shock through the unique design of the disconnecting features.
- ◆ 50 psi (3.45 bar) maximum allowable operating pressure.

Ordering Specifications

| Product # | Size | mm | Weight | |
|--------------|------------|----|--------|------|
| | | | lbs. | kg |
| 68EZR-7575 | 3/4" (NPT) | 19 | 1.2 | 0.54 |
| 68EZR-75RF* | 3/4" (NPT) | 19 | 1.2 | 0.54 |
| 68EZR-1010 | 1" (NPT) | 25 | 1.2 | 0.54 |
| 68EZR-10RF** | 1" (NPT) | 25 | 1.2 | 0.54 |

*68EZR-75RF is UL and ULC listed for use in gasoline, ethanol blends up to 25% (E25), diesel, and biodiesel blends up to 20% (B20).

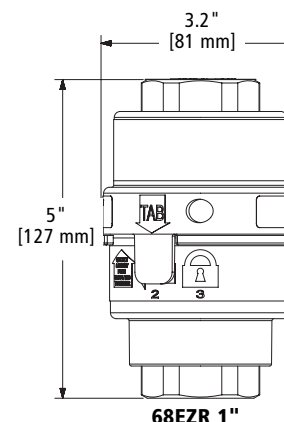
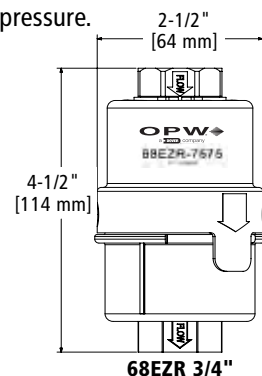
**68EZR-10RF is UL and ULC listed for use in diesel, and biodiesel blends up to 20% (B20).

Replacement Parts

| Part # | Description |
|--------|----------------|
| 211143 | 3/4" Main Seal |
| 8509 | 1" Main Seal |

68EZR Series Instruction Sheet Order Number: **208080**

Listings and Certifications



Materials

Body: Die-cast zinc
Protective Sleeves: Impact resistant nylon
Main Seals: Viton®
Main Spring: Stainless steel
Guide and Poppets: Acetal
Packed: 20 per Case

66REC

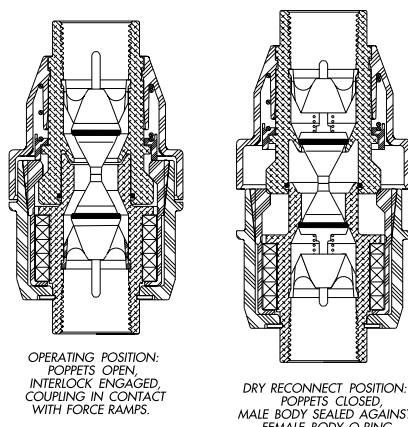


Features

- ◆ UL and ULC listed for use in gasoline, diesel and up to 10% ethanol blends. Specific listings available at www.opwglobal.com.
- ◆ Pull Force – the 66REC-1000 will break away with a pull force of no more than 350 lbs.
- ◆ Unique Double-Poppet Design – features low pressure drop.
- ◆ Coupling Halves – protected by proven plastic sleeves.
- ◆ Easily Reconnected – just “push and twist” until you hear the audible click, signifying the unit has been correctly reconnected. Reconnection force approximately 15 lbs.
- ◆ May be reconnected under wet or dry hose conditions.
- ◆ Cold weather compatible
- ◆ Line Shock – the OPW 66REC is able to absorb the effects of normal line shock through the unique design of the disconnecting features.

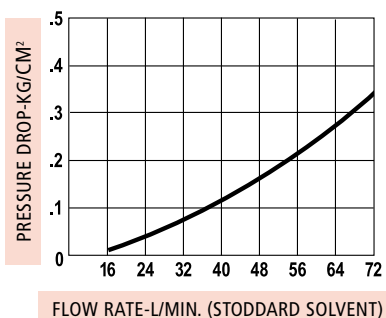
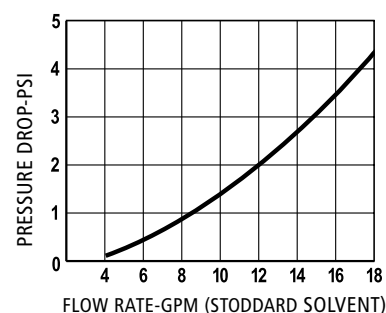
Design working pressure

- ◆ 50 psi (3.45 bar) maximum pressure.



OPW 66REC 3/4" Dry Reconnectable Breakaway

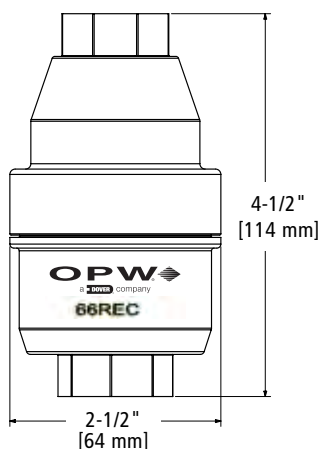
The OPW 66REC is the first dry reconnectable breakaway for the conventional dispensing market. It is designed to be installed on fuel dispensing hoses and will separate when subjected to a designated pull force. The dual valves seat automatically, stopping the flow of fuel and limiting any fuel spillage, while protecting the dispensing equipment. When reconnecting the separated halves, the 66REC seals tightly on an O-ring before the poppet stems engage to open the valve. For proper operation on high-hanging hoses, the OPW 66REC 3/4" must always be installed with a “straightening” hose with a minimum length of 9", such as the OPW 66H. For low hose applications, the OPW 66REC should be installed downstream of the retractor cable.



Ordering Specifications

| Product # | in. | mm | lbs. | kg |
|------------|------------|----|------|-----|
| 66REC-1000 | 3/4" (NPT) | 19 | 1.2 | .54 |

NOTE: See OPW's Website at www.opwglobal.com for product instruction sheets, trouble-shooting guides, how-to-use guide and to view the Do's & Don'ts at the Gas Pump video.



**Listings and
Certifications**



Materials

Body: Aluminum

Seals: Buna-N and Viton®

Weight: See matrix below

66V Breakaway Scuff Guard



66V



Features

- ◆ UL and ULC listed for use in gasoline, diesel and up to 10% ethanol blends. Specific listings available at www.opwglobal.com.
- ◆ Prevents Costly Damage to Dispensers – pulls apart at less the designed pull force during drive-offs.
- ◆ Certainty of Operation – designed for single use, so you know it is replaced instead of re-assembled.

- ◆ Prevents Hazardous and Costly Clean Up – unique double poppet design closes leak path from both dispenser and separated hose side.

Design working pressure

- ◆ 50 psi (3.45 bar) maximum pressure.

NOTE: OPW 66V Series Breakaways must always be installed with a "straightening" hose with a minimum length of 9" for the 3/4" Series and a minimum length of 12" for the 1" Series, such as the 66H Series hoses.

Ordering Specifications

| Product # | Connection Size | | Weight | | Description - Pull Force |
|--------------|-----------------------|-------------|--------|------|--|
| | in. | mm | lbs. | kg | |
| 66V-0300 | 3/4" F x 3/4" F (NPT) | 19 F x 19 F | 0.60 | 0.27 | Valve / No More Than 300 lb. |
| 66V-030RF** | 3/4" F x 3/4" F (NPT) | 19 F x 19 F | 0.60 | 0.27 | Valve / No More Than 300 lb. |
| 66V-0492* | 3/4" F x 3/4" F (NPT) | 19 F x 19 F | 0.60 | 0.27 | Valve for up to E85 / No More Than 300 lb. |
| 66V-1300 | 1" F x 1" F (NPT) | 25 F x 25 F | 0.98 | 0.45 | Valve / No More Than 300 lb. |
| 66V-130RF*** | 1" F x 1" F (NPT) | 25 F x 25 F | 0.98 | 0.45 | Valve / No More Than 300 lb. |
| 66V-1350 | 1" F x 1" F (NPT) | 25 F x 25 F | 0.98 | 0.45 | Valve / No More Than 350 lb. |
| 66V-135RF*** | 1" F x 1" F (NPT) | 25 F x 25 F | 0.98 | 0.45 | Valve / No More Than 350 lb. |

* 66V-0492 is UL Listed for up to 85% Ethanol

** 66V-030RF is UL Listed for up to 25% Ethanol and 20% Biodiesel

*** 66V-130RF and 66V-135RF are UL Listed for up to 20% Biodiesel

Accessories

| | | | | | |
|----------|-----------------------|-------------|------|------|---|
| 66-0075 | 3/4" F x 3/4" M (NPT) | 19 F x 19 M | 1.46 | 0.66 | Valve w/ 9" Hose / No More Than 300 lb. |
| 66-1300 | 1" F x 1" M (NPT) | 25 F x 25 M | 2.50 | 1.13 | Valve w/ 12" Hose / Maximum 300 lb. |
| 66S-0075 | 3/4" | 19 | 0.20 | 0.10 | Black Vinyl Scuff Guard Cover |
| 66S-1300 | 1" | 25 | 0.20 | 0.10 | Black Vinyl Scuff Guard Cover |

66H Series of Hoses

The 66H Series Hoses are UL approved, steel reinforced hardwall flexible to -40°F. 3/4 inch inside diameter with 3/4 inch male NPT chrome crimped ends.

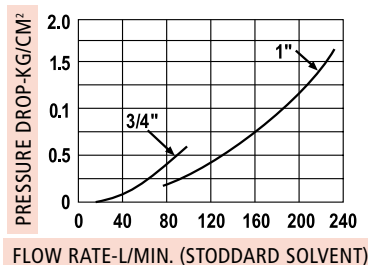
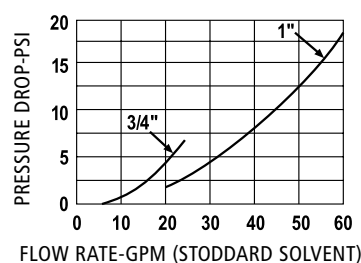
Compatible with fuel blends up to E-15 & B-20. Maximum working pressure 50PSI. Also available in Low Permeation per UL330.

Ordering Specifications

| Product # | Length | Connection Size | | Weight | | Description |
|--------------|------------------|-----------------------|-------------|--------|------|---|
| | | in. | mm | lbs. | kg | |
| 66H-0975 | 9 inch (23 cm) | 3/4" M x 3/4" M (NPT) | 19 M x 19 M | 0.75 | 0.34 | Straightening Hose |
| 66H-0975-LP | 9 inch (23 cm) | 3/4" M x 3/4" M (NPT) | 19 M x 19 M | 0.75 | 0.34 | Straightening Hose LOW PERMEATION per UL330 |
| 66H-1300 | 12 inch (30 cm) | 1" M x 1" M (NPT) | 25 M x 25 M | 1.40 | 0.63 | Straightening Hose |
| 66H-08575 | 8.5 feet (2.6 m) | 3/4" M x 3/4" M (NPT) | 19 M x 19 M | 4 | 1.8 | Curb Hose |
| 66H-08575-LP | 8.5 feet (2.6 m) | 3/4" M x 3/4" M (NPT) | 19 M x 19 M | 4 | 1.8 | Curb Hose LOW PERMEATION per UL330 |

OPW 66V Series Breakaways

The OPW 66V Series breakaways are designed and rigorously tested for use in today's fuels. Installed on fuel dispensing hoses, they will separate at the designed pull force, reducing expensive damage to the dispenser and piping system. Internal dual valves close automatically during separation, stopping the flow of fuel from both the dispenser and the separated hose, reducing environmental and health risks of potential spilled fuel.



66V Series 3/4" Instruction Sheet Order Number: H10993PA

66V Series 1" Instruction Sheet Order Number: H10993PA

66S Series Instruction Sheet Order Number: H11015PA

Listings and Certifications



We don't stop at the nozzle.
We've got you covered with swivels, breakaways and hoses.

OPW Swivels Compatibility



| Model | 365 | 241TPS | 45 |
|-----------|--------------------|----------------------------------|------------------|
| Up to E10 | 365-5080 | 241TPS-0241 | 45-5060 |
| Up to E25 | | 241TPS-75RF | |
| Up to E85 | | 241TPS-0492 | |
| Up to B5 | 365-5080, 365-5090 | 241TPS-0241, 241TPS-1000 | 45-5060, 45-5075 |
| Up to B20 | | 3/4" 241TPS-75RF, 1" 241TPS-10RF | |

OPW Breakaway Compatibility



Now Approved
 For E25,
 Ethanol Blend



| Model | 66V | 68EZR | 66REC | 66SB |
|-----------|--|--------------------------|------------|------------------------|
| Up to E10 | 66V-0300 | 68EZR-7575 | 66REC-1000 | 66SB-7575 66SB-1010 |
| Up to E25 | 66V-030RF | 68EZR-75RF | | |
| Up to E85 | 66V-0492 | | | |
| Up to B5 | 66V-0300 66V-1300 66V-1350 | 68EZR-7575 68EZR-1010 | 66REC-1000 | 66SB-7575 66SB-1010 |
| Up to B20 | 3/4" 66V-030RF 1" 66V-130RF 1" 66V-135RF | 68EZR-75RF 68EZR-10RF | | |

Hose Compatibility



Straightening Hose:
 66H-0975 - 9 inch (23 cm)



Curb Hose: 66H-08575
 8.5 foot (2.6 m)

| Model | Whip Hose (9 in) | Curb Hose (8.5 ft) |
|-----------|------------------|--------------------|
| Up to E10 | 66H-0975 | 66H-08575 |
| Up to E25 | 66H-0975-E25 | 66H-08575-E25 |
| Up to E85 | 66H-0975-E85 | 66H-08575-E85 |
| Up to B5 | 66H-0975 | 66H-08575 |
| Up to B20 | 66H-0975 | 66H-08575 |
| Low Perm | 66H-0975-LP | 66H-08575-LP |

E25, B20
Hose Kits Available

Contact Your OPW Distributor or Sales Representative



Materials

Body: Aluminum nickel-plated
Spring: Steel zinc-plated
Guide: Ceramic-filled plastic
Adaptor: Steel zinc-plated
Inlet and Outlet Size: 3/4" NPT



44-0044

44N-1044

Features

- ◆ UL and ULC listed for use in gasoline, diesel and up to 10% ethanol blends. Specific listings available at www.opwglobal.com.
- ◆ Compact, attractive profile – for a sleek, modern appearance.
- ◆ Includes a 3/4" NPT pipe nipple.
- ◆ The OPW 44-0044 is designed to be installed at the dispenser outlet or between the dispenser and the breakaway valve, thus removing it from the abusive action sometimes

seen at the nozzle.

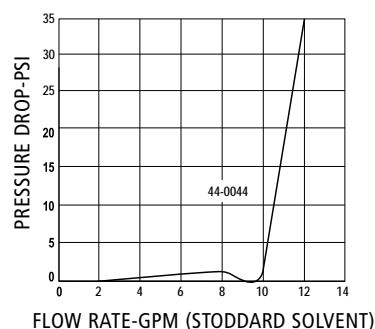
- ◆ A flow indication arrow – is indicated on the flow limiter for easy installation.

Design working pressure

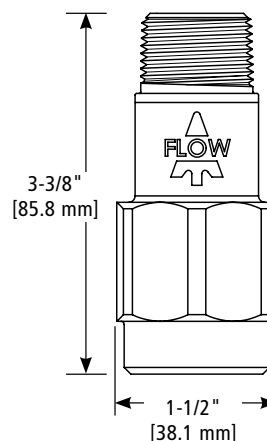
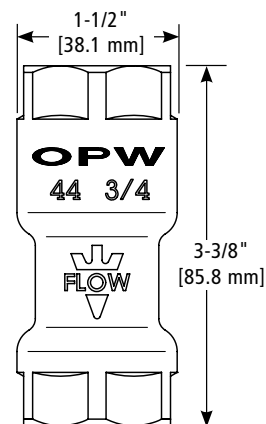
- ◆ 50 psi (3.45 bar) maximum pressure.

OPW 44 Flow Limiter

The OPW 44 Flow Limiter allow your customers to comply with the EPA 10 gpm maximum flow rate mandate which went into effect July 1, 1996. The OPW 44-0044 Flow Limiter is designed to control the maximum fuel flow rate to 10 gpm.



44-0044



Ordering Specifications

| Product # | Length | Weight | |
|-----------|---------------------|--------|-----|
| | in. | lbs | kg |
| 44-0044 | 3/4 F x 3/4 F (NPT) | 1.2 | .54 |

44 Series Instruction Sheet Order Number: **H12918PA**

NOTE: See OPW's Website at www.opwglobal.com for product instruction sheets, trouble-shooting guides, how-to-use guide and to view the Do's & Don'ts at the Gas Pump video.

Listings and Certifications



See pages 231 - 239 for certification

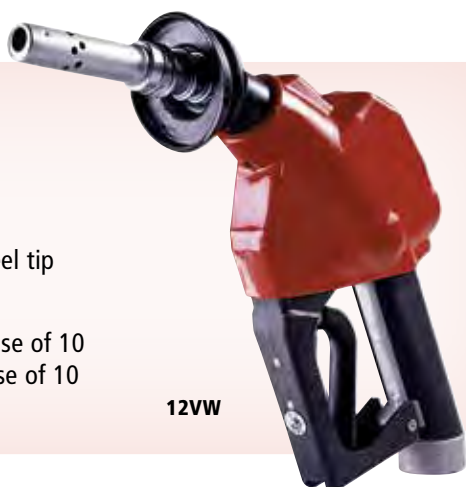
Vacuum-Assist Vapor Recovery Hanging Hardware



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- Swivel Breakaway Combos..... 171
- Reconnectable Breakaways 172
- Single-Use Breakaways..... 159
- Accessories, Adaptors and Converters 174

Materials

Body: Aluminum
Lever & Lever Guard: Duratuff®
Packing: Graphite with Teflon®
Disc: Viton®
Spout: Aluminum w/ Stainless Steel tip
Inlet Size: M34 Metric
Weight: 3.1 lbs. each; 31.0 lbs./case of 10
 1.41 kg each; 14.1 kg/case of 10



12VW

Features

Safe for Use

- ◆ UL listed for use in gasoline, diesel and up to 10% ethanol blends. Specific listings available at **www.opwglobal.com**.
- ◆ Prevents gasoline spills in prepay or card-lock systems utilizing OPW's unique No Pressure – No Flow Device. – The nozzle cannot be opened until the pumping system is pressurized and closes automatically when the pressure is removed.
- ◆ Prevents consumer from jamming the nozzle in an open position – blocker on lever guard.
- ◆ FlowLock™ allows nozzle to shut off when falling out of a vehicle, and is tipped up, limiting spillage and unsafe conditions.
- ◆ Vapor Escape Guard (VEG) improves vapor collection.
- ◆ Lever-activated vapor valve only opens when product is flowing controlling the amount of vapors collected from the vehicle.
- ◆ Stainless steel insert in spout to last longer than standard aluminum-only spouts.
- ◆ Durable lever guard that won't scratch your customers' vehicles – made from Duratuff®.
- ◆ New hold-open clip spring lasts longer than previous designs.
- ◆ Internal vapor path – no replacement parts needed.

Appealing to Customers

- ◆ Easy to use – utilizing Accu-Stop® to-the-penny Flow Control Technology.
- ◆ Attractive 2-Piece NEWGARD™ Hand Insulator is the most comfortable nozzle in the industry to use.
- ◆ Convenient – one-finger hold-open clip that is easy to set the flow rate (not on all models).

Design working pressure

- ◆ 50 psi (3.45 bar) maximum pressure.
- * **OPW internal lab testing results as of August 2010.**

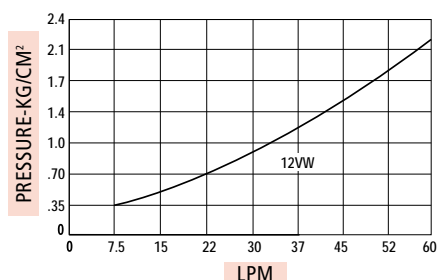
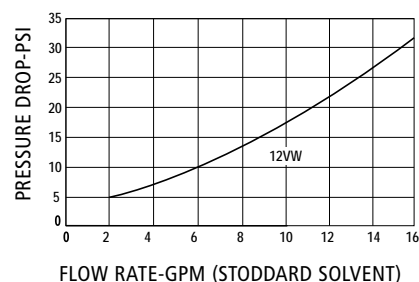
Durable and Long Lasting

- ◆ Cycle tested and proven to last longer than 1 million cycles – better than any other nozzle available on the market today*.

OPW 12VW Vacuum-Assist Nozzles

The OPW 12VW Series automatic nozzles are one of OPW's premium nozzles for Vacuum-Assist vapor recovery systems. Designed with an integrated vapor-valve, they are certified on the most used vapor recovery systems in the world. The 12VW is the most trusted vapor recovery nozzle in the world for the applications it is certified on including:

- Dresser/Wayne Wayne® Vac
- Gilbarco® VaporVac®
- Schlumberger
- Vacurite



**Listings and
Certifications**



CARB

California Air Resources Board

Listings and Certifications

Certifications and Listings

Gilbarco® VaporVac®

| | | |
|---------------------------------|------------------------|------------------------|
| CARB Initial Certification Date | April 2000 | July 2000 |
| CARB Certification Number | G-70-153* / G-70-199** | G-70-150* / G-70-199** |

* Latest version.

**Approval for 350ml liquid retention requirement.

Ordering Specifications

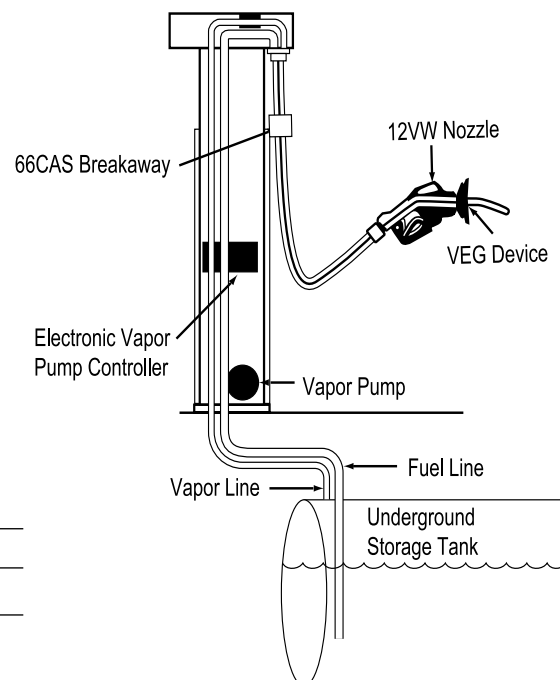
| Standard Hand Insulator Color | 12VW New Unleaded, with Hold-open Rack | 12VW w/ AdMaster™ |
|-------------------------------|--|-------------------|
| Green | 12VW-0100 | |
| Silver | 12VW-0200 | |
| Red | 12VW-0300 | |
| Black | 12VW-0400 | 12VW-0400-AD |
| Blue | 12VW-0500 | |
| Gold | 12VW-0750 | |
| Yellow | 12VW-0900 | |
| Bare | 12VW-0000 | |

Replacement and Repair Parts

| Product | Description | Part# |
|-----------|--|----------|
| Spout Kit | Replacement aluminum unleaded spout with VEG | 5VW-2000 |
| ECD Kit | Replacement ECD and hardware | 3VW-0450 |

12VW Series Instruction Sheet Order Number: **H15890PAE**

Typical Installation



OPW 6 NEWGARD™ Two-Piece Hand Insulator

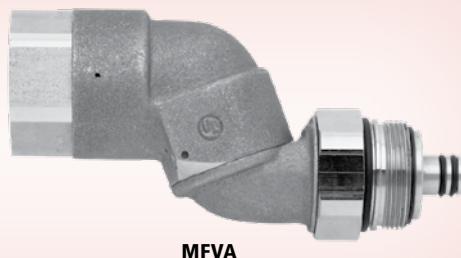
Ordering Specifications

| Hand Insulator Color | 12VW New Unleaded, with Hold-Open Rack |
|-----------------------|--|
| Green | H13964M |
| Silver | H14662M |
| Red | H13942M |
| Black | H13941M |
| Blue | H14580M |
| Gold | H14661M |
| Yellow | H13943M |
| Hand Insulator Barrel | D02141M |



Materials

Body: Aluminum
Outlet Adaptor: Aluminum
Inlet Adaptor: Aluminum
Seals: Viton and Buna-N
Weight: 1.5 lbs. each, 0.68 kg



MFVA

Features

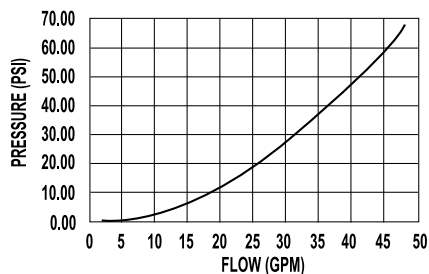
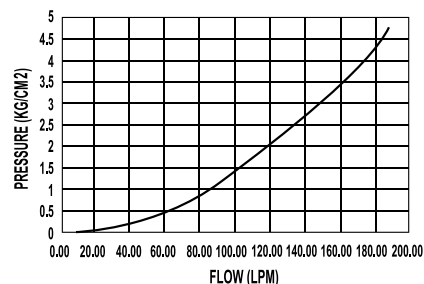
- ◆ **UL listed** for use in gasoline, diesel and up to 10% ethanol blends. Specific listings available at www.opwglobal.com.
- ◆ **Easier Hose Movement** – filling the vehicle is much easier, because hoses do not kink and are much freer to move.
- ◆ **Improved Wear** – reduces stress and wear on hoses.
- ◆ **Two-Plane Rotation** – the first swivel plane allows for 360° of motion perpendicular to the axis of the nozzle.
- ◆ The second swivel plane allows for 360° of motion parallel to the axis of the nozzle for easy nozzle positioning in the fillpipe.
- ◆ **Compact, Attractive Profile** – provides a sleek, modern appearance, allowing hoses to hang straight down instead of at an angle.
- ◆ **Secure Design** – not repairable or rebuildable for certainty of operation. Every MFVA is factory assembled and tested.
- ◆ **Special Swivel Outlet Design** – male adaptor is specially designed so that tightening of the threaded joint will not inhibit swivel rotation.

Design working pressure

- ◆ 50 psi (3.45 bar) maximum pressure.

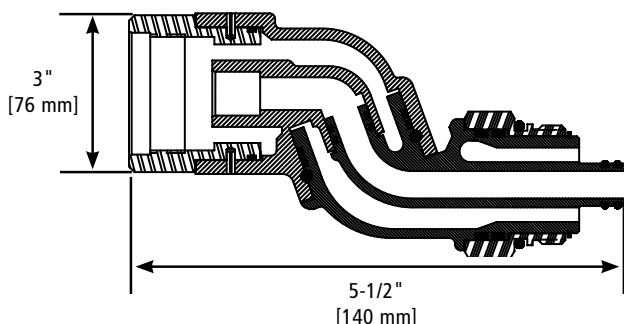
OPW MFVA Inverted Swivel

The OPW MFVA Inverted Swivel is designed for vapor recovery applications where easy nozzle and hose handling is important for customer convenience. When attached between the nozzle and the hose, the OPW MFVA two-plane swivel allows your customer a much fuller range of motion in positioning the nozzle to fill the vehicle. Your customer can access the fillpipe from virtually any angle with minimal effort. The OPW MFVA attaches between the hose and the nozzle to reduce strain, providing flexibility so fueling hoses last longer. The OPW MFVA provides 360° swivel action for easy nozzle positioning into the fillpipe.



Ordering Specifications

| Product # | Description | Threads |
|-----------|----------------------|------------|
| MFVA | Vacuum Assist Swivel | M34 Metric |



**Listings and
Certifications**

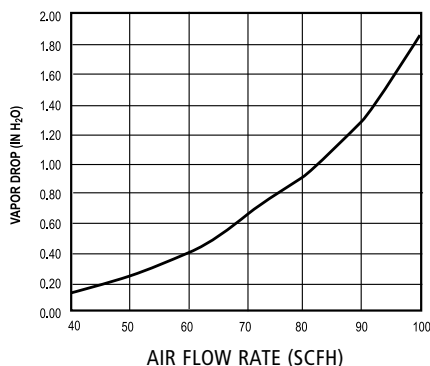


CARB

California Air Resources Board

OPW 66ISB Vacuum-Assist Stage II Vapor Recovery Reconnectable Swivel/Breakaways

Reconnectable, vapor poppeted Vacuum-Assist Swivel/Breakaways available. Designed for those who want to provide customers with the convenience of a 2-plane swivel and the added safety of a breakaway.



Materials

Body: Aluminum
Sleeve: Nylon, HDPE
Seals: Viton®
Spring: Stainless steel
Poppet: Aluminum
Weight: 1.3 lbs., 0.60 kg



66ISB-5100

Features

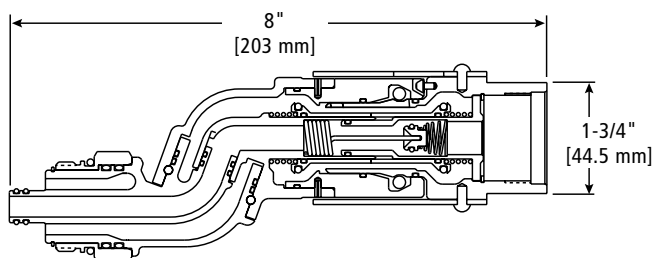
- ◆ UL and ULC listed for use in gasoline, diesel and up to 10% ethanol blends. Specific listings available at www.opwglobal.com.
- ◆ Engineered to separate with an axial pull force of no more than 350 lbs.
- ◆ 66ISB-5100 comes with vapor poppet.
- ◆ Swivel rotation of 360° in both planes.
- ◆ Push-back reconnect style.
- ◆ Easier reconnection at waist height.
- ◆ Extends hose life.
- ◆ Double O-rings at each joint.

Design working pressure

- ◆ 50 psi (3.45 bar) maximum pressure.

Ordering Specifications

| Product # | Threads |
|------------|----------------------|
| 66ISB-5100 | M34 Metric Breakaway |



Listings and Certifications



California Air Resources Board

CARB Certified and UL Listed Per Standard 567.

Materials

Body: Aluminum
Main Seals: Viton
Guide and Poppets: Acetal
Protective Sleeves: Impact Resistant Nylon®
Main Spring: Stainless steel
Weight: 1.0 lbs., 0.96 kg



66CAS-0300

Features

- ◆ UL listed for use in gasoline, diesel and up to 10% ethanol blends. Specific listings available at www.opwglobal.com.
- ◆ Dual Poppets – close to prevent product spillage and vapor leakage.
- ◆ Dual poppeted breakaways are recommended for use in any vacuum-assist systems, especially nozzles with integral vapor valves.
- ◆ Sleek, Attractive Appearance – to enhance station image.
- ◆ Quick Reconnect – requires only 15 lbs. of force to reconnect.
- ◆ Dry Reconnect – designed to help prevent liquid from spraying the operator during the reconnection operation.
- ◆ Rugged, Durable Construction – outer sleeve to protect coupling and sealing parts from damage for long, trouble-free service life.
- ◆ Nozzle and Hose Compatibility – interfaces with Stage II vapor recovery nozzles by OPW, and with all manufacturers of vapor recovery hoses (features the popular M34 metric thread).

Construction/Design

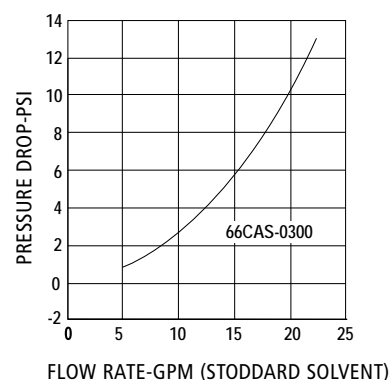
- ◆ Outer sleeve to protect sealing and coupling parts in a driveaway.
- ◆ Field-proven, double-poppet design that seals both ends of the product line and the dispenser side of the vapor line in a driveaway.
- ◆ Inverted metric coaxial hose fitting for installation into any vacuum-assist dispenser.
- ◆ Easily replaces any inverted breakaway currently in use today.

Design working pressure

- ◆ 50 psi (3.45 bar) maximum pressure.

OPW 66CAS Dry Reconnect Inverted Breakaways

The OPW 66CAS Dual Poppeted, Dry Reconnect Inverted Breakaway is designed to close off the liquid path and the vapor path in the event of a drive-away. Engineered to separate at maximum of 350 pounds of axial pull force, the OPW 66CAS Breakaway is also designed to handle line shock better than a single use breakaway, while protecting your dispensing system from catastrophic damage. The OPW 66CAS is developed for use with inverted coaxial metric hoses and designed to meet today's demanding standards.

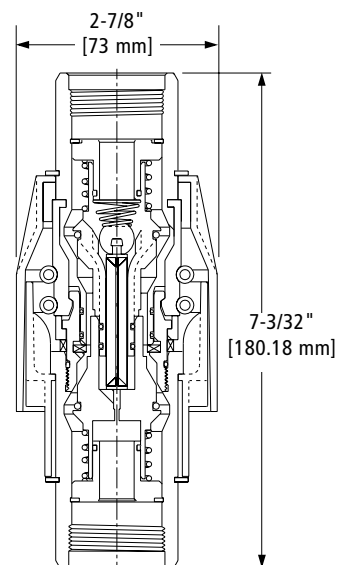


Ordering Specifications

| Product # | Threads |
|--------------------------------|----------------------|
| 66CAS-0300 | M34 Metric Breakaway |
| 66CAS Series Instruction Sheet | |
| Order Number: H13008M | |

Replacement Parts

| Product # | Threads |
|------------|----------------------|
| 66SRK-1000 | Seal Replacement Kit |



**Listings and
Certifications**



CARB

California Air Resources Board

Balance Vapor Recovery Hanging Hardware



- Reconnectable Breakaways 175

Materials

Body: Aluminum
Seals: Buna-N
Weight: 0.75 lbs.,
0.34 kg



VAR75

Features

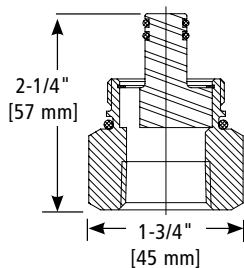
- ◆ Lightweight, maintenance free and easy to install.
- ◆ Adapts M-34 thread to a 3/4" NPT thread.

Design working pressure

- ◆ 50 psi (3.45 bar) maximum pressure.

Ordering Specifications

| Part No. | Description |
|----------|--|
| VAR75 | Vac-assist to 3/4" NPT Conventional Converter |



Materials

Body: Aluminum
Seals: Buna-N
Weight: 0.75 lbs.,
0.34 kg



28C

Features

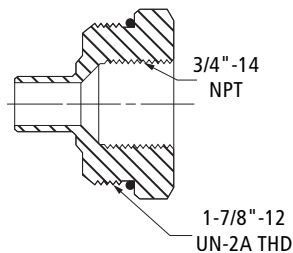
- ◆ Lightweight, maintenance free and easy to install.
- ◆ Adapts 1-7/8 – 12 UN thread to a 3/4" NPT thread

Design working pressure

- ◆ 50 psi (3.45 bar) maximum pressure.

Ordering Specifications

| Part No. | Description |
|----------|---|
| 28C-0028 | Coax Vapor Recovery x 3/4" NPT Bushing |



OPW VAR75 Converter Vac-Assist to 3/4" NPT

Converts vacuum-assist nozzle to a conventional hose or a vacuum-assist dispenser for use with a conventional hose.

OPW 28C Balance Coax Adaptor

The OPW Balance Adaptor is designed to convert Balance Coax dispensers into a conventional hose point. Simply remove the existing balance hose and thread the 28C into the existing dispenser; then thread in your new Conventional hose.

Materials

Body: Die-cast zinc
Protective Sleeves: Impact modified nylon
Main Seals: Viton®
Main Spring: Stainless steel
Guide and Poppets: Acetal
Weight: 0.97 lbs., 0.44 kg **66CLP-5100**



OPW 66CLP Balance Phase II Enhanced Vapor Recovery Reconnectable Breakaway

For more than a decade, the 66CLP has earned the reputation as the industry standard in preventing fuel vapors from escaping during a separation incident on balance systems. Its proven design minimizes downtime and allows all hose points to be put back in service as quickly and easily as possible after a separation event. The OPW 66CLP is also approved for VST Phase II Enhanced Vapor Recovery Systems.

Features

- ◆ UL listed for use in gasoline, diesel and up to 10% ethanol blends. Specific listings available at **www.opwglobal.com**.
- ◆ Separates at 350 pounds of axial force.
- ◆ Push-back reconnect style.
- ◆ Durable, lightweight construction.
- ◆ Minimal pressure drop.

Design working pressure

- ◆ 50 psi (3.45 bar) maximum pressure.

Ordering Specifications

Product # Description

66CLP-5100 Vapor Poppeted Reconnectable Balance Breakaway

66CLP Instruction Sheet Order Number: **F-70**

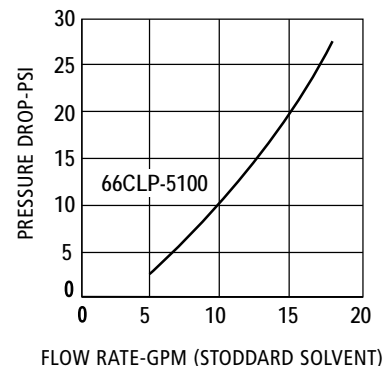
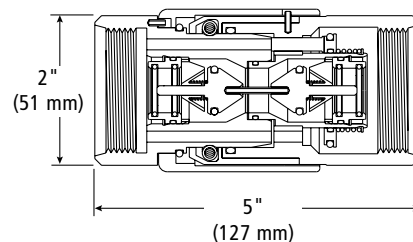
Replacement Parts

Product # Description

204870 O-ring

204872 Spring

204811 Outer Cover



Listings and Certifications

CARB Certification Numbers

Executive Order VR-203-N (for Balance Phase II Enhanced Vapor Recovery (EVR) Systems Not Including In-Station Diagnostics (ISD))

Executive Order VR-204-N (for Balance Phase II Enhanced Vapor Recovery (EVR) Systems Including In-Station Diagnostics (ISD) Systems)

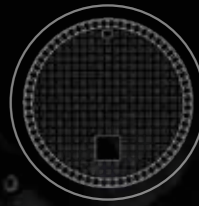
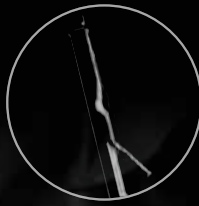
Listings and Certifications



CARB

California Air Resources Board

— FlexWorks — Edge DWSC — 71SD-T — Fibrelite —



ElectroTite



OPW 14E

ECO Nozzle

Fueling Site 2020 - Phase 1: Above and Below Ground Assembly

DEFINING | WHAT'S NEXT

For more than 125 years, OPW has been leading the way in fueling innovation worldwide. We have built our legendary reputation by advancing business partnerships with our distributors that help petroleum marketers provide an optimum fueling experience for their consumers.

At OPW, we are constantly looking to the future, refining our existing solutions and pioneering new technologies in a never-ending quest to deliver what matters most to consumers: a safe, clean, efficient, comfortable, environmentally conscious, water-tight, compliant and reliable fueling environment.

We are doing more than leading the way. We are *defining what's next*.

Industrial Products



- DEF Nozzle..... 178
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OPW 19DEF Series Industrial Automatic Nozzle

When you're responsible for ensuring the safe, reliable and affordable dispensing of Diesel Exhaust Fluid (DEF) for on-road, off-road, commercial and industrial heavy-duty trucks, farming or other diesel powered vehicles, you rely on the most trusted name in dispensing nozzles – OPW.

The NEW OPW 19DEF Series Industrial Automatic Nozzle is specifically designed for your commercial and industrial fleet operations, offering unmatched reliability with the features you want.

OPW 19DEF Series Swivels

Reconnectable Swivel Breakaway



- Designed to connect to the inlet of the nozzle. - No whip hose needed
- The industries best swiveling ability
- Breakaway is reconnectable with built in swivel / Retaining jaws and seals are replaceable
- Breakaway will separate at no more than 350 pounds of force. (axial or angular)

Hose Swivel



- Hose swivel designed for 3/4" DEF hose (Clamps not included)
- The industries best swiveling ability

Swivel



- The industries best swiveling ability

Design Working Pressure

- ◆ 50 PSI (3.45 bar) maximum pressure

NOTE: The OPW 19DEF Equipment is for commercial fleet applications only and are not UL Listed for gasoline dispensing facilities.

Materials

Packing & Disc: Fluorocarbon

Lever & Lever Guard: Duratuff®

Spout: Stainless Steel

O.D. 19mm (0.75 in) per ISO 22241 Specifications

Inlet Size: 3/4" NPT or 3/4" BSPP

Weight: 2.73 lbs. each, 43.1 lbs./case of 15, 1.25 kg each, 19.9 kg/case of 15



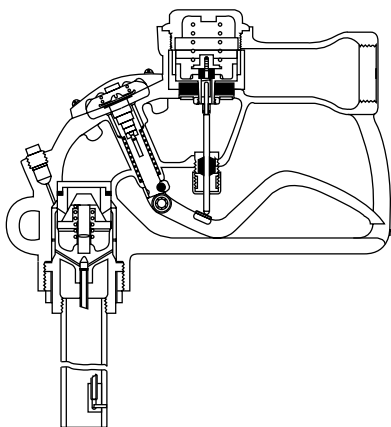
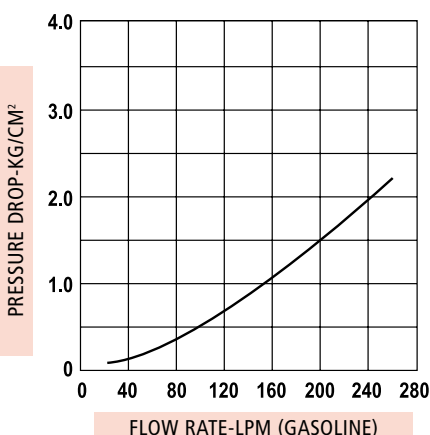
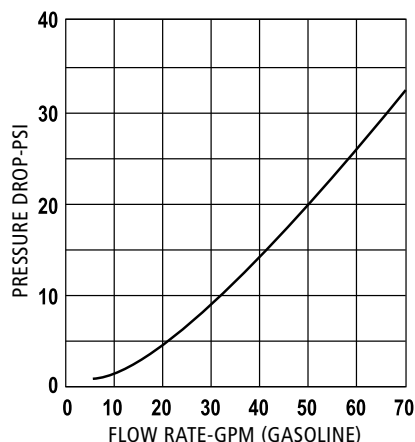
Features - Benefits

- ◆ Stainless Steel Spout – provides optimum DEF purity and prevents corrosion
- ◆ Lowest Overall Cost of Ownership – reliable, long lasting design based on proven OPW quality platform and industry standard-setting technology
- ◆ Ease of Use – sleek, lightweight design with patented Accu-Stop® Flow Control Technology and convenient one-finger hold-open clip to set flow rate
- ◆ User Comfort – attractive 2-Piece NEWGARD™ Hand Insulator is the most comfortable nozzle in the industry in hot or cold weather
- ◆ Vehicle Protection – our Duratuff® lever guard not only provides for rugged durability when dropped but also won't scratch your fleet vehicle
- ◆ Meets ISO 22241 Requirements – all materials of construction are 100% 3rd party tested and approved for DEF compatibility

| Product # | Description |
|-------------------------|---|
| Nozzles | |
| 19DEF-0500SS | Nozzle, DEF - 3/4" Female NPT inlet, for use WITHOUT Mis-Filling Prevention Device |
| 19DEF-050LSS | Nozzle, DEF - 3/4" Female BSPP inlet, for use WITHOUT Mis-Filling Prevention Device |
| 19DEFM-0500SS | Nozzle, DEF - 3/4" Female NPT inlet, for use WITH Mis-Filling Prevention Device |
| 19DEFM-050LSS | Nozzle, DEF - 3/4" Female BSPP inlet, for use WITH Mis-Filling Prevention Device |
| Swivel Breakaway | |
| 19DB-0075 | Breakaway, DEF, 3/4" NPT |
| 19DB-0075L | Breakaway, DEF, 3/4" BSPP |
| Hose Swivel | |
| 19DHS-0075 | Hose Swivel, DEF, 3/4" NPT |
| 19DHS-0075L | Hose Swivel, DEF, 3/4" BSPP |
| Swivel | |
| 19DS-0075 | Swivel, DEF, 3/4" NPT |
| 19DS-0075L | Swivel, DEF, 3/4" BSPP |
| Hose Adaptors | |
| 19DM-0100 | 3/4" MNPT to 1" MNPT - Connecting nozzle to 1" NPT Female hose |
| 19DF-0100 | 3/4" MNPT to 1" FNPT - Connecting nozzle to 1" NPT Male hose |
| 19DML-0100 | 3/4" MBSPP to 1" MBSPP - Connecting nozzle to 1" BSPP Female hose |
| 19DFL-0100 | 3/4" MBSPP to 1" FBSP - Connecting nozzle to 1" BSPP Male hose |
| 19DML-0075 | 3/4" MBSPP to 3/4" MBSPP - Connecting nozzle to 3/4" BSPP Female hose |

OPW 1290 and 1291C Automatic Shut-Off Nozzles

For Heavy-Duty, High-Flow Truck, Bus and Home Fuel Oil Delivery Service



Materials

Body: Aluminum

Main stem: Stainless steel

Packing: Graphite with Teflon®

Main Disc: Viton®

Inlet Size: 1-1/2" NPT



1291C-0050

Features

- ◆ Venturi-Type Shut-Off Mechanism – for automatic shut-off.
- ◆ Aluminum Body – lighter in weight and easier to maneuver than other nozzles on the market.
- ◆ Two-position hold-open device*.
- ◆ One-Hand Control of Hold-Open Mechanism – means easy setting of flow rate.
- ◆ Right Angle Design – provides larger lever area for better grips and easier control, permitting the nozzle to fit into awkward spaces close to walls and into corners.

- ◆ Easily-Replaced Spout – simply remove the spout retainer nut.
- ◆ Built-In Outlet Check Valve – meets all known requirements of the Division of Measurement Standards.
- ◆ Dual Poppets – make nozzle easy to open against high inlet pressure.

Design working pressure

- ◆ 50 psi (3.45 bar) maximum pressure.
- ◆ Service Temperature range: -20° F to 140° F

Ordering Specifications

| Product # | Description | Inlet Thread | | | |
|-------------|-------------|--------------|----|------|-----|
| | | in. | mm | lbs. | kg |
| 1290-0050 | New | 1 1/2" | 38 | 6.8 | 3.1 |
| 1291C-0050* | New | 1 1/2" | 38 | 6.8 | 3.1 |
| 1290G-0050 | New | 1 1/2" | 38 | 6.8 | 3.1 |

Government National Stock #s:

1290-0050; NSN 4930-01-290-0756

1290G-0050; NSN 4930-01-352-1660 green anodized

1290GS-0050; NSN 4930-01-352-1661 tan anodized

(1290GS-AR50; tan anodized without Kamlok coupler and dust plug)

Replacement Spout

| Product # | Description | O.D. | | Length | | Weight | |
|-----------|--------------------------|--------|----|--------|-----|--------|------|
| | | in. | mm | in. | mm | lbs. | kg |
| 5D-0125 | 8-1/2", 1290, Spout Kit | 1 3/8" | 35 | 8 1/2" | 215 | 1.5 | 0.68 |
| 5D-0126C | 8-1/2", 1291C, Spout Kit | 1 3/8" | 35 | 8 1/2" | 215 | 1.5 | 0.68 |

1290 Series Instruction Sheet Order Number: **H09238PA**

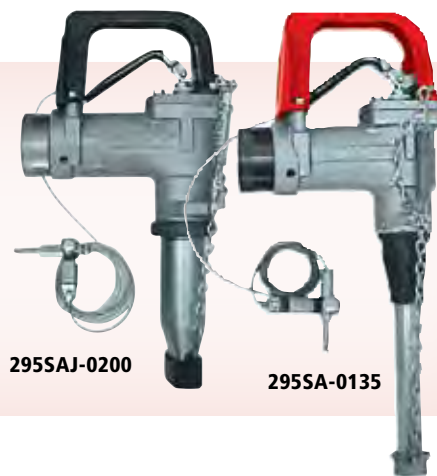
Listings and Certifications



***1291C Nozzles are not permitted and sold with Hold-Open Clips per ULC S620 requirements.**

Materials

Body: Cast aluminum
Main Stem: Stainless steel
Stem Seal: Buna-N O-Ring
Disc: Viton®
Spout: Aluminum



Features

- ◆ Aluminum Body – lighter weight, easier to maneuver.
- ◆ Dual Poppets – easy-to-open nozzle against high inlet pressures.
- ◆ Color-Coded Composite Lever Guards – helps distinguish between AVGAS and Jet A. Easily replaced in lever guard kit.
- ◆ Right Angle Design – provides larger lever area for better grip and easier control.
- ◆ Vinyl-Coated Lever – insulates fingers against cold.
- ◆ 100 Mesh Strainer – prevents foreign matter from entering fuel tank; easy to remove and clean.
- ◆ Dust Cap – keeps spout free from dirt and stops fuel drippage when connected.
- ◆ Adjustable Dash Pot – permits adjusting the main poppet closure rate over a wide range of flows to overcome line shock with minimum afterflow.
- ◆ Easily replaced spout – the spout is easily threaded into the body. Replacement spouts are readily available from OPW.
- ◆ Built-In Swivel – eliminates twisting and kinking of the hose. This swivel is electroless nickel-plated and has full-bearing surfaces.
- ◆ NPT Female Threads at Inlet End of 295SA – accepts all 1", 1-1/4" or 1-1/2" male connections.
- ◆ NPT Female Threads At Inlet End Of 295SAJ – accepts all 1-1/2" male connections.
- ◆ Unique Jet Aircraft Spout Design of 295SAJ – to help prevent inadvertent fueling of piston engine aircraft with turbine fuel.
- ◆ Ground Wire Assembly – included on all aviation nozzles.

Design working pressure

- ◆ 110 psi (7.58 bar) maximum pressure

Level Guard Replacement Kits

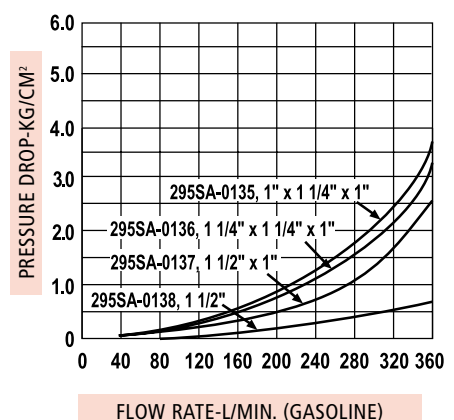
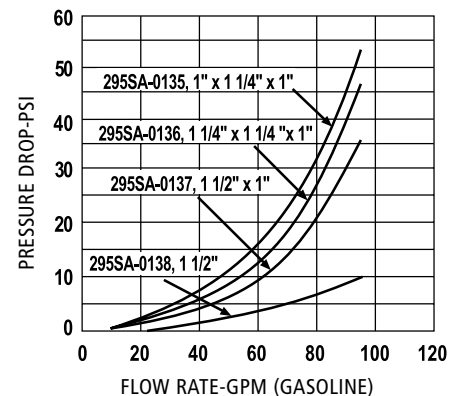
| Product # | Nozzle |
|-------------|---|
| 295KLG-0300 | 295SA-0135, 0136, 0137, 295SAC-0156, 0157 Red |
| 295KLG-0350 | 295SA-0138, 275SAC-0158 Red |
| 295KLG-0400 | 295SAJ-0200, 295SACJ-0200 Black |

All lever guard kits include new lever sub-assembly.
 295 Series Instruction Sheet Order Number: **H09237PA**

Manual Overwing Aircraft Nozzles

295SA – AVGAS

295SAJ – Jet Fuel



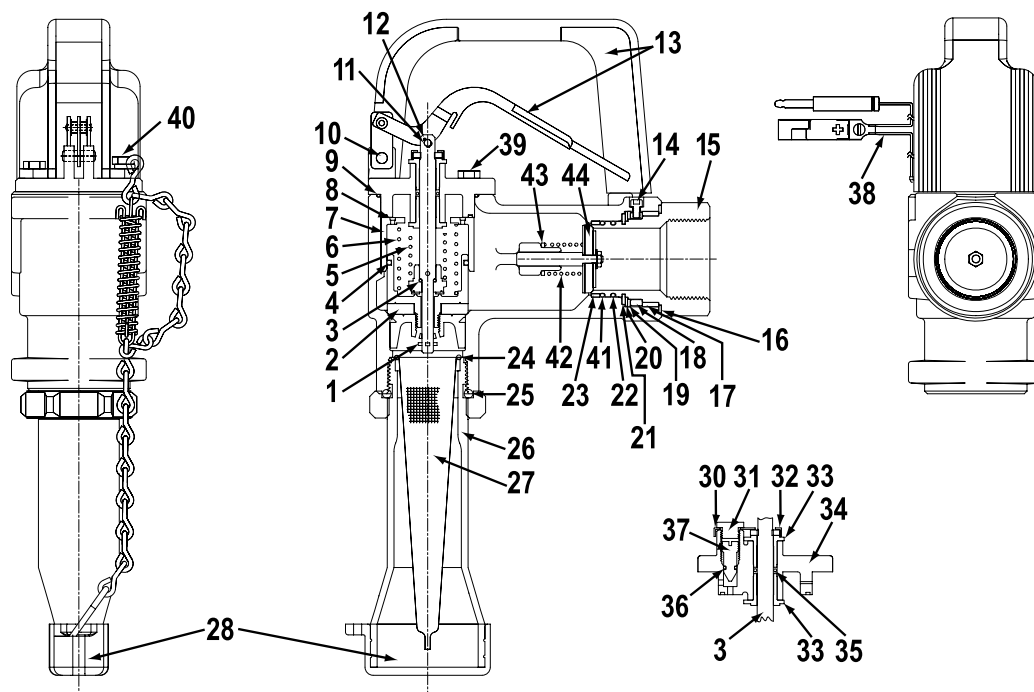
Ordering Specifications

| Product # | Inlet Thread | | | | Spout O.D | |
|---------------|--------------|----|------|------|-----------|----|
| | in. | mm | lbs. | kg | in. | mm |
| 295SA-0135 | 1 | 25 | 4.60 | 2.10 | 1 | 25 |
| 295SA-0136 | 1 1/4 | 32 | 4.50 | 2.00 | 1 | 25 |
| 295SA-0137 | 1 1/2 | 38 | 4.50 | 2.00 | 1 | 25 |
| 295SA-0138 | 1 1/2 | 38 | 5.10 | 2.30 | 1 5/8 | 41 |
| 295SAJ-0200 | 1 1/2 | 38 | 5.60 | 2.50 | 2 2/3 | 54 |
| 295SAC-0156* | 1 1/4 | 32 | 4.50 | 2.00 | 1 | 25 |
| 295SAC-0157* | 1 1/2 | 38 | 4.50 | 2.00 | 1 | 25 |
| 295SAC-0158* | 1 1/2 | 38 | 5.15 | 2.30 | 1 5/8 | 41 |
| 295SACJ-0200* | 1 1/2 | 38 | 5.65 | 2.60 | 2 2/3 | 54 |

* Check Valve

NOTE: See OPW's Website at www.opwglobal.com for product instruction sheets, trouble-shooting guides, how-to-use guide and to view the Do's & Don'ts at the Gas Pump video.

Replacement Parts - OPW 295SA/295SAC & 295SAJ



| Key | Part # | Description | 295SA-0135 inlet/ spout 1" x 1" | 295SA-0136 & 295SAC-0156 inlet/ spout 1 1/4" x 1" | 295SA-0137 & 295SAC-0157 inlet/ spout 1 1/2" x 1" | 295SA-0138 & 295SAC-0158 inlet/ spout 1 1/2" x 1 1/2" | 295SAJ-0200 & 295SACJ-0200 inlet/ spout 1 1/2" x 1 1/2" |
|-----|-------------|---------------------|------------------------------------|---|---|---|---|
| 1 | H02477M | Cotter Pin | • | • | • | • | • |
| 2 | H07719 | Main Poppet S/A | • | • | • | • | • |
| 3 | H09420 | Stem & Sec. Poppet | | | | • | • |
| 3 | H09417 | Stem & Sec. Poppet | • | • | • | | |
| 4 | H12706M | O-Ring | • | • | • | • | • |
| 5 | H09367M | Spring | • | • | • | • | • |
| 6 | H05064M | Spring | • | • | • | • | • |
| 7 | H05088M | Skirt | • | • | • | • | • |
| 8 | H05198M | Seal | • | • | • | • | • |
| 9 | H04828M | Seal | • | • | • | • | • |
| 10 | H03981RE | Pin | • | • | • | • | • |
| 11 | 215290 | Cotter Pin | • | • | • | • | • |
| 12 | H07580M | Rivet | • | • | • | • | • |
| 13 | 295KLG-0300 | Lever Guard Kit* | • | • | • | | |
| 13 | 295KLG-0350 | Lever Guard Kit* | | | | • | |
| 13 | 295KLG-0400 | Lever Guard Kit* | | | | | • |
| 14 | H13774M | Screw (3 req'd)* | • | • | • | • | • |
| 15 | 295SWK-0007 | Swivel Repair Kit** | • | | | | |
| 15 | 295SWK-0009 | Swivel Repair Kit** | | • | | | |
| 15 | 295SWK-0014 | Swivel Repair Kit** | | | | • | • |
| 15 | 295SWK-0013 | Swivel Repair Kit** | | | • | | |
| 16 | H08886M | Dust Seal | | | | • | • |
| 16 | H01227M | Dust Seal | • | • | • | | |
| 17 | H08887M | Bearing | | | | • | • |
| 17 | H08879M | Bearing | • | • | • | | |
| 18 | H09713RS | Retainer | | | | • | • |
| 18 | H09712RS | Retainer | • | • | • | | |

* Replacement part for nozzles built after 08/1998. Part is unavailable for nozzles built before this date.

** Includes 295SRK-0001 or 295SRK-0002 and contact ring.

Replacement Parts-OPW 295SA/SAC & SAJ Aircraft Nozzles

| Key | Part # | Description | 295SA-0135 inlet/ spout 1" x 1" | 295SA-0136 & 295SAC- 0156 inlet/spout 1 1/2" x 1" | 295SA-0137 & 295SAC- 0157 inlet/spout 1 1/2" x 1" | 295SA-0138 & 295SAC- 0158 inlet/spout 1 1/2" x 1 1/2" | 295SAJ-0200 & 295SACJ-0200 inlet/ spout 1 1/2" x 1 1/2" |
|-----|------------|------------------|------------------------------------|---|---|---|---|
| 19 | H08881M | Thrust Bearing | • | • | • | | |
| 19 | H08889M | Thrust Bearing | | | | • | • |
| 20 | H08882M | Lock Ring | • | • | • | | |
| 20 | H08890M | Lock Ring | | | | • | • |
| 21 | H09365M | Retaining Ring | • | • | • | | |
| 21 | H09366M | Retaining Ring | | | | • | • |
| 22 | H12319M | O-Ring, Buna-N | • | • | • | | |
| 22 | H12320M | O-Ring, Buna-N | | | | • | • |
| 23 | H08884M | Bearing | • | • | • | | |
| 23 | H08892M | Bearing | | | | • | • |
| 24 | H06026M | O-Ring | • | • | • | | |
| 24 | H07670M | O-Ring | | | | • | |
| 24 | H11499M | O-Ring | | | | | • |
| 25 | H05297M | O-Ring | • | • | • | | |
| 25 | H07766M | O-Ring | | | | • | |
| 25 | H10458M | O-Ring | | | | | • |
| 26 | 297SA-9050 | Spout S/A | • | • | • | | |
| 26 | 297SA-9060 | Spout S/A | | | | • | |
| 26 | 696J-7010 | Spout S/A | | | | | • |
| 27 | 190S-7063 | Strainer | • | • | • | | |
| 27 | 153-0910 | Strainer | | | | • | |
| 27 | 153J-0100 | Strainer | | | | | • |
| 28 | H10387 | Cap & Chain S/A | • | • | • | | |
| 28 | H10388 | Cap & Chain S/A | | | | • | |
| 28 | 296CJ-0100 | Cap & Chain S/A | | | | | • |
| 29 | H09212 | Body Cap S/A** | • | • | • | | |
| 29 | H09213 | Body Cap S/A** | | | | • | • |
| 30 | H05135M | Retainer | • | • | • | • | • |
| 31 | H08441RS | Screw | • | • | • | • | • |
| 32 | H05087M | Felt Wiper | • | • | • | • | • |
| 33 | H05063M | Bushing | • | • | • | • | • |
| 34 | C02115A | Cap | • | • | • | | |
| 34 | C02117A | Cap | | | | • | • |
| 35 | H12707M | O-Ring | • | • | • | • | • |
| 36 | H12705M | O-Ring | • | • | • | • | • |
| 37 | H04825M | Adj. Screw | • | • | • | • | • |
| 38 | 190WM-8001 | Ground Wire S/A | • | • | • | • | • |
| 39 | H07062M | Screw (4 req'd) | • | • | • | • | • |
| 40 | H06045M | Screws (2 req'd) | • | • | • | • | • |
| 41 | H13776M | O-Ring, Viton® | | | | • | • |
| 41 | H13775M | O-Ring, Viton® | • | • | • | | |

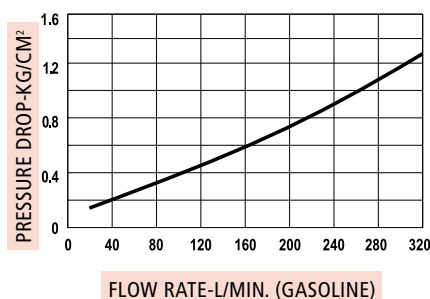
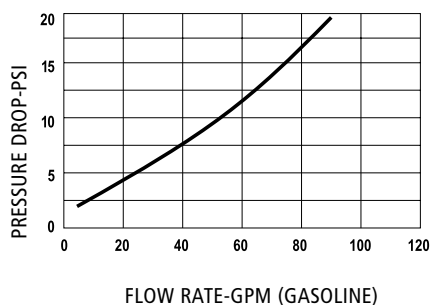
** Body Cap sub-assembly includes parts 30-37.

Replacement Parts - OPW 295SAC & 295SACJ Only

| Key | Part # | Description | 295SAC-0156 | 295SAC-0157 | 295SAC-0158 | 295SACJ-0200 |
|-----|---------|---------------|-------------|-------------|-------------|--------------|
| 42 | H07595M | Spring SST | • | • | | |
| 42 | H07593M | Spring SST | | | • | • |
| 43 | H07613M | Washer, nylon | • | • | • | • |
| 44 | H09214 | Poppet S/A | • | • | | |
| 44 | H09215 | Poppet S/A | | | • | • |

OPW 295AF - Manual Aircraft Nozzles

For Overwing Aircraft Service



Replacement Parts

| Part # | Description |
|------------|---------------------------------|
| 153AF-0100 | 100 Mesh Strainer |
| 190WF-8002 | Ground Wire S/A w/ Dust Cap |
| C03420NM | Protector Ring |
| C03422 | Dust Cap |
| 297AF-9070 | 1 1/2" Aluminum Spout for 295AF |
| E00274AG | Arctic Guard for 295AF |

Materials

Body: Cast aluminum
Main Stem: Stainless steel
Stem Seal: Buna-N O-Ring
Main Poppet Disc: Viton®
Spout: 297AF-9070



Features

- ◆ Aluminum Body – lighter weight, easier to maneuver.
- ◆ Dual Poppets – easy-to-open nozzle against high inlet pressures.
- ◆ Replaceable Lever Guard – easy, low-cost replacement.
- ◆ Right Angle Design – provides larger lever area for better grip and easier control.
- ◆ Vinyl-Coated Lever – insulates fingers against cold.
- ◆ 100 Mesh Strainer – prevents foreign matter from entering fuel tank; easy to remove and clean.
- ◆ Dust Cap – keeps spout free from dirt and stops fuel drippage when connected.
- ◆ Spout Protector Ring – to protect aircraft tanks and wing surface; adjustable. Furnished as standard.
- ◆ Special Heavy-Duty Spout – knurled to facilitate daily strainer service.
- ◆ NPT Female Threads at Inlet End – standard pipe threads all 1-1/2" male connections.
- ◆ Static Ground Wire – with air force plug meets MS 25384-5.
- ◆ Dash-Pot Action – for smoother closing action and reduced line shock.

Design working pressure

- ◆ 110 psi (7.58 bar) maximum pressure

Ordering Specifications

| Product # | Inlet Thread | | | |
|------------|--------------|----|------|------|
| | in. | mm | lbs. | kg |
| 295AF-0100 | 1 1/2" | 38 | 6.40 | 2.90 |

Gov't. Nat'l. Stock #: 4930-01-293-4472

295 Series Instruction Sheet Order Number: **H09237PA**

Materials

Body: Cast aluminum

Main Stem: Stainless steel

Stem Seal: Graphite with Teflon®

Disc: Viton®

Spout: OPW 296 brass or
297 aluminum (optional)



190-0115

(Spout optional, see Page 189)

Features

- ◆ Aluminum Body – lighter weight, easier to maneuver.
- ◆ Dual Poppets – allow for low flow metering (this nozzle is not intended for high pressure pump applications).
- ◆ Replaceable Hold-Open Rack – for use when fueling large-capacity tanks. Nozzle must be attended at all times during usage.
- ◆ Right Angle Design – provides larger lever area for better grip and easier control; permits nozzle to fit into awkward spaces close to walls and into corners.
- ◆ Drag Lugs – protect the nozzle when dragged across rough surfaces; enhances long-life durability.
- ◆ Easily Replaced Spout – the spout is easily threaded into the body. Replacement spouts are readily available from OPW.
- ◆ NPT Female Threads at Inlet End – standard pipe threads accept all standard 1", 1-1/4", 1-1/2" and 2" male connections.

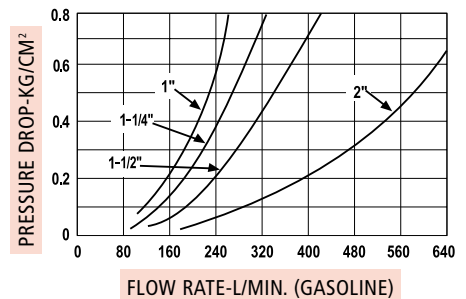
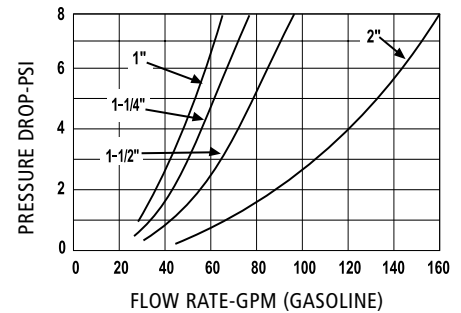
Design working pressure

- ◆ 50 psi (3.45 bar) maximum pressure

OPW 190 High-Flow Manual Nozzles

For High-Flow, Bulk Fuel Oil Delivery Service

Designed to handle high flow when line pressure is not a critical consideration or otherwise absorbed.



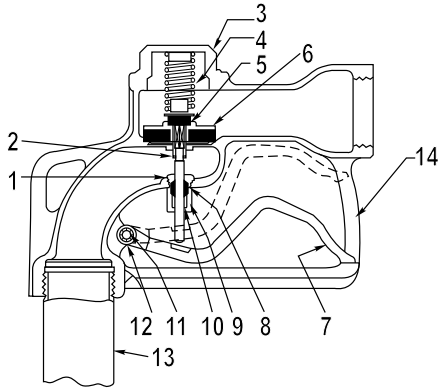
Ordering Specifications

| Product # | Inlet Thread | | Spout Diameter | | lbs. | kg |
|-----------|--------------|----|----------------|----|------|-----|
| | in. | mm | in. | mm | | |
| 190-0112 | 1" | 25 | 1 1/4" | 32 | 2.3 | 1.0 |
| 190-0113 | 1 1/4" | 32 | 1 1/4" | 32 | 2.3 | 1.0 |
| 190-0114 | 1 1/2" | 38 | 1 1/2" | 38 | 3.0 | 1.4 |
| 190-0115 | 2" | 51 | 2" | 51 | 5.8 | 2.6 |
| 190G-B104 | 1 1/2" | 38 | 1 1/2" | 38 | 5.1 | 2.3 |

w/ Spout and Ground Wire

Gov't. Nat'l. Stock #: 4930-01-360-5540

NOTE: See OPW's Website at www.opwglobal.com for product instruction sheets, trouble-shooting guides, how-to-use guide and to view the Do's & Don'ts at the Gas Pump video.



Replacement Parts - OPW 190 Nozzles

| Key | Part # | Description | 190-0112 | 190-0113 | 190-0114 | 190-0115 | 190-B104 |
|-----------|------------|-------------------------|----------|----------|----------|----------|----------|
| 1 | H00195RB | Stuffing Box | • | • | • | | • |
| 1 | H00250RB | Stuffing Box | | | | • | |
| 2 | H00538RE | Stem | • | • | • | | |
| 2 | H06742RE | Stem | | | | • | |
| 3 | H09600AH | Cap | • | • | • | | |
| 3 | H09601AH | Cap | | | | • | |
| 3 | H11592AH | Cap | | | | | • |
| 4 | H00136M | Spring | • | • | • | | • |
| 4 | H03666M | Spring | | | | • | |
| 5 | 190K-0001 | Upper Poppet S/A | • | • | • | | • |
| 5 | H01814 | Upper Poppet S/A | | | | • | |
| 6 | H01817 | Lower Poppet S/A | • | • | • | | • |
| 6 | H01818 | Lower Poppet S/A | | | | • | |
| 7 | H11925M | Lever | • | • | • | | • |
| 7 | H06733M | Lever | | | | • | |
| 8 | C04495M | Packing | • | • | • | • | • |
| 9 | H07012M | Packing Gland | • | • | • | | • |
| 9 | H00520RB | Packing Gland | | | | • | |
| 10 | H00113RA | Packing Nut | • | • | • | | |
| 10 | H00252RA | Packing Nut | | | | • | |
| 10 | H00113RAG | Packing Nut | | | | | • |
| 11 | H08163M | Push Nut | • | • | • | • | • |
| 12 | H08164RE | Pin | • | • | • | | • |
| 12 | H08165RE | Pin | | | | • | |
| 13 | 297-9020 | Spout (optional) | • | • | | | |
| 13 | 297-9030 | Spout (optional) | | | • | | |
| 13 | 297-9040 | Spout (optional) | | | | • | |
| 13 | 296-0040 | Spout, Brass (optional) | | • | | | |
| 13 | 296-0060 | Spout, Brass (optional) | | | • | | |
| 13 | 296-0080 | Spout, Brass (optional) | | | • | | |
| 14 | C04698M | Rack | • | • | • | • | • |
| 14 | H14105M | Screw | • | • | • | • | • |
| Not Shown | | | | | | | |
| | 296CA-4000 | Dust Cap* | | | | | • |
| | 153-0910 | Strainer | | | | | • |

*See page 189 for Dust Caps

Materials

Body: Cast aluminum
Main Stem: Stainless steel
Stem Seal: Buna-N O-Ring
Main Poppet Disc: Viton®
Spout: OPW 297 aluminum (optional)



295SC-0141
(Spout optional, see Page 189)

Features

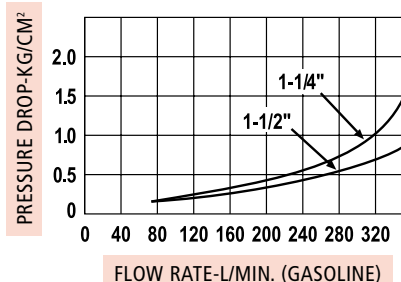
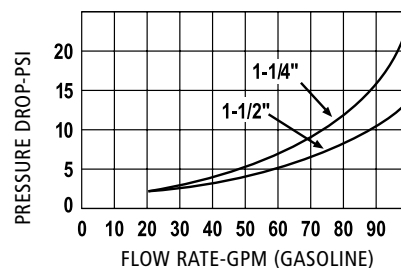
- ◆ Aluminum Body – lighter weight, easier to maneuver.
- ◆ Dual Poppets – easy-to-open nozzle against high inlet pressures.
- ◆ Replacement Hold-Open Rack – one-hand control of hold-open mechanism means easy setting of flow speed. Nozzle must be attended at all times during usage.
- ◆ Replaceable Composite Lever Guard – easy, low-cost replacement.
- ◆ Right Angle Design – provides larger lever area for better grip and easier control; permits nozzle to fit into awkward spaces close to walls and into corners.
- ◆ Adjustable Dash Pot – permits adjusting the main poppet closure rate over a wide range of flows to overcome line shock with minimum afterflow.
- ◆ Built-In Swivel – eliminates twisting and kinking of the hose. This swivel is hard-coated aluminum and has full-bearing surfaces.
- ◆ Built-In Check Valve – prevents hose drainage after pump is turned off.
- ◆ Vinyl-Coated Lever – insulates fingers against cold.
- ◆ Easily Replaced Spout – the spout is easily threaded into the body. Replacement spouts are readily available from OPW.
- ◆ NPT Female Threads at Inlet End – standard pipe threads accept all 1-1/4" or 1-1/2" male connections.

Design working pressure

- ◆ 110 psi (7.58 bar) maximum pressure

OPW 295SC High-Flow Manual Nozzles

For High-Flow, Bulk Fuel Oil Delivery Service



Lever Guard Replacement Kit

| Part # | Description |
|-------------|---------------------------|
| 295KLG-0200 | Short Grey for 295SC-0139 |
| 295KLG-0250 | Long Grey for 295SC-0141 |

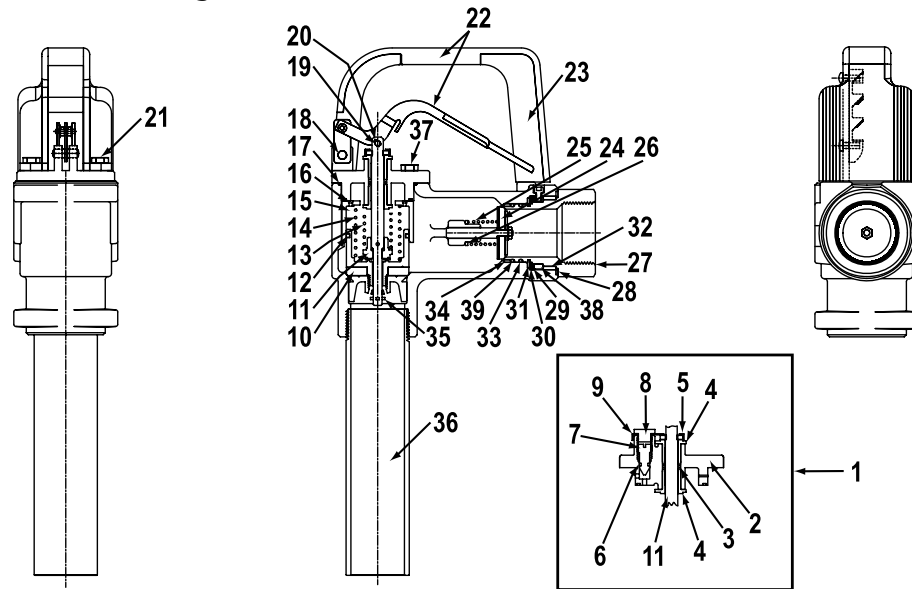
295 Series Instruction Sheet Order Number:
H09237PA

Ordering Specifications

| Product # | Inlet Thread | | | |
|------------|--------------|----|------|-----|
| | in. | mm | lbs. | kg |
| 295SC-0139 | 1 1/4" | 32 | 3.75 | 1.7 |
| 295SC-0141 | 1 1/2" | 38 | 4.33 | 2.0 |

NOTE: See OPW's Website at www.opwglobal.com for product instruction sheets, trouble-shooting guides, how-to-use guide and to view the Do's & Don'ts at the Gas Pump video.

Replacement Parts - OPW 295SC High-Flow Nozzles



| Key | Part # | Description | 1 1/4" 11 1/2" NPT | 1 1/2" 11 1/2" NPT |
|-----|-------------|--------------------|-----------------------|-----------------------|
| 1 | H09212 | Cap S/A | • | |
| 1 | H09213 | Cap S/A | | • |
| 2 | C02115A | Cap | • | |
| 2 | C02117A | Cap | | • |
| 3 | H12707M | O-Ring | • | • |
| 4 | H05063M | Bushing (2 req'd) | • | • |
| 5 | H05087M | Felt Wiper | • | • |
| 6 | H12705M | O-Ring | • | • |
| 7 | H04825M | Adjusting Screw | • | • |
| 8 | H08441RS | Screw | • | • |
| 9 | H05135M | Retainer | • | • |
| 10 | H07719 | Main Poppet S/A | • | • |
| 11 | H09417 | Stem & Sec. Poppet | • | |
| 11 | H09420 | Stem & Sec. Poppet | | • |
| 12 | H12706M | O-Ring | • | • |
| 13 | H09367M | Spring | • | • |
| 14 | H05064M | Spring | • | • |
| 15 | H05088M | Skirt | • | • |
| 16 | H05198M | Seal | • | • |
| 17 | H04828M | Seal | • | • |
| 18 | H03981RE | Pin | • | • |
| 19 | H05000M | Cotter Pin | • | • |
| 20 | H07580M | Rivet | • | • |
| 21 | H06045M | Screw (2 req'd) | • | • |
| 22 | 295KLG-0200 | Guard Kit | • | |
| 22 | 295KLG-0250 | Guard Kit | | • |
| 23 | C04698M | Hold-Open Rack | • | • |
| 23 | H14105M | Screw | • | • |
| 24 | H09214 | Poppet S/A | • | |

| Key | Part # | Description | 1 1/4" 11 1/2" NPT | 1 1/2" 11 1/2" NPT |
|-----|-------------|--------------------|-----------------------|-----------------------|
| 24 | H09215 | Poppet S/A | | • |
| 25 | H07593M | Spring | | • |
| 25 | H07595M | Spring | • | |
| 26 | H07613M | Washer | • | • |
| 27 | 295SWK-0009 | Swivel Repair Kit* | • | |
| 27 | 295SWK-0014 | Swivel Repair Kit* | | • |
| 28 | H08886M | Dust Seal | | • |
| 28 | H01227M | Dust Seal | • | |
| 29 | H08881M | Thrust Bearing | • | |
| 29 | H08889M | Thrust Bearing | | • |
| 30 | H08882M | Lock Ring | • | |
| 30 | H08890M | Lock Ring | | • |
| 31 | H09365M | Retaining Ring | • | |
| 31 | H09366M | Retaining Ring | | • |
| 32 | H08879M | Bearing | • | |
| 32 | H08887M | Bearing | | • |
| 33 | H12319M | O-Ring | • | |
| 33 | H12320M | O-Ring | | • |
| 34 | H08884M | Bearing | • | |
| 34 | H08892M | Bearing | | • |
| 35 | H02477M | Cotter Pin | • | • |
| 36 | 297-9020 | Spout | • | |
| 36 | 297-9030 | Spout | | • |
| 37 | H07062M | Screw (4 req'd) | • | • |
| 38 | H09712RS | Retainer | • | |
| 38 | H09713RS | Retainer | | • |
| 39 | H13776M | O-Ring, Viton® | | • |
| 39 | H13775M | O-Ring, Viton® | • | |

* Includes 295SRK-0001 or 295SRK-0002 and contact ring.

Materials

Body: Cast aluminum
Main Stem: Stainless steel
Stem Seal: Graphite with Teflon®
Disc: Viton®
Spout: OPW 296 brass or
 297 alum. (optional)



210-0105
(Spout optional, see Page 189)

Features

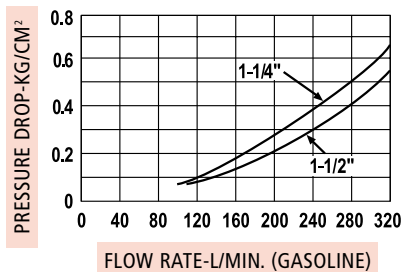
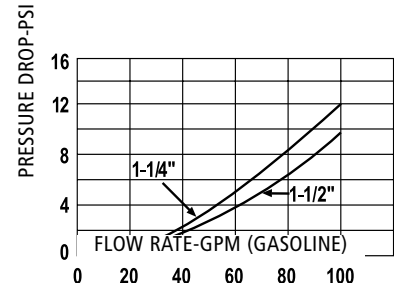
- ◆ Aluminum Body – lighter weight, easier to maneuver.
- ◆ Dual Poppets – allows for low-flow metering.
- ◆ Replaceable Hold-Open Rack – for use when fueling large-capacity tanks. Nozzle must be attended at all times during usage.
- ◆ Dash Pot – non-adjustable, to minimize closing line shock.
- ◆ Right Angle Design – provides larger lever area for better grip and easier control; permits nozzle to fit into awkward spaces close to walls and into corners.
- ◆ Drag Lugs – protect the nozzle when dragged across rough surfaces; adds to long life with rough usage.
- ◆ Easily Replaced Spout – the spout is simply threaded into the body. Replacement spouts are readily available from OPW.
- ◆ NPT Female Threads at Inlet End – standard pipe threads accept all standard 1 1/4" and 1 1/2" male connections.

Design working pressure

- ◆ 50 psi (3.45 bar) maximum pressure

OPW 210 High-Flow Manual Nozzles

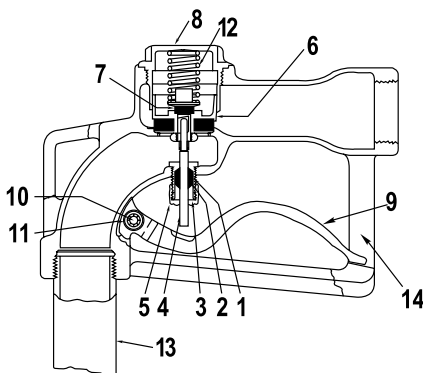
For High-Flow, Bulk Fuel Oil Delivery Service



Replacement Parts

| Key | Part # | Description |
|-----|-----------|------------------------------------|
| 1 | H00195RB | Stuffing Box |
| 2 | C04495M | Packing |
| 3 | H07012M | Packing Gland |
| 4 | H05719RE | Stem* |
| 5 | H00113RA | Packing Nut |
| 6 | H01841 | Lower Disc S/A* |
| 7 | 190K-0001 | Upper Poppet |
| 8 | H01461AH | Cap |
| 9 | H00999M | Lever |
| 10 | H08165RE | Pin |
| 11 | H08163M | Push Nut (2 required) |
| 12 | H00136M | Spring |
| 13 | 297-9020 | Spout (optional) - 1 1/4" aluminum |
| 13 | 297-9030 | Spout (optional) - 1 1/2" aluminum |
| 13 | 296-0040 | Spout (optional) - 1 1/4" brass |
| 13 | 296-0060 | Spout (optional) - 1 1/2" brass |
| 14 | C04698M | Rack |
| 14 | H14105M | Screw |

* Replacement part for nozzles built after 04/1998. Part is unavailable for nozzles built before this date.



Ordering Specifications

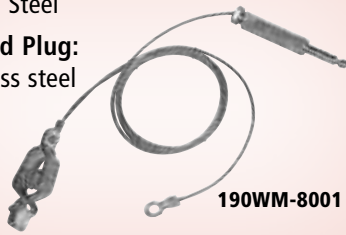
| Product # | in. | mm | lbs. | kg |
|-----------|--------|----|------|-----|
| 210-0104 | 1 1/4" | 32 | 3.95 | 1.8 |
| 210-0105 | 1 1/2" | 38 | 4.40 | 2.0 |

NOTE: See OPW's Website at www.opwglobal.com for product instruction sheets, trouble-shooting guides, how-to-use guide and to view the Do's & Don'ts at the Gas Pump video.

Materials

Cable: Steel

Ground Plug:
Stainless steel



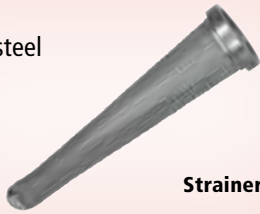
190WM-8001

Ordering Specifications

| Product # | Length | | Used On |
|------------|--------|------|---------|
| | ft. | m | |
| 190WM-8001 | 6' | 1.83 | 295SA |
| 190WF-8002 | 6' | 1.83 | 295AF |

Materials

Screen:
Stainless steel



Strainer

Ordering Specifications

| Product # | Size | | Used On |
|------------|--------|----|-----------------------------|
| | in. | mm | |
| 153-0910 | 1 1/2" | 38 | 190G, 295SA |
| 153J-0100 | 1 1/2" | 38 | 295SAJ |
| 190S-7063 | 1" | 25 | 295SA Series w/ 1" Spout |
| 153AF-0100 | 1 1/2" | 38 | 295AF |

Materials

Body: Anodized
Aluminum

Spring: Bronze

Stem: Bronze

Disc: Buna-N

Body: Rubber

Spring: Stainless

Stem: Bronze

Disc: Buna-N



296CA



296CJ

Ordering Specifications

| Product # | Size | | Spout | Used On |
|------------|--------|----|-----------------|------------------|
| | in. | mm | | |
| 296CA-4000 | 1 5/8" | 41 | 296 | 190 1" |
| 296CA-4005 | 1 5/8" | 41 | 296 | 1 1/4", 1 1/2" |
| 296CJ-0100 | 1 1/2" | 38 | 696J only | 295SAJ 1 1/2" |
| H10387 | 1" | 26 | 297SA 1" | 295SA |
| H10388 | 1 1/2" | 38 | 297SA 1 1/2" | 295SA |

Manual Nozzle Accessories OPW 190 Ground Wire

The OPW 190 ground wire assembly is designed for use on 295 series aircraft nozzles. The OPW 190WM is designed for use with the 295SA and includes a cable, attaching eyelet, ground plug and clamp. The OPW 190WF is for use with the 295AF aircraft nozzle and includes a cable, eyelet, ground plug and dust cap.

OPW Strainers

OPW strainers prevent foreign matter from entering fuel tanks. They are held in position by a tube and have a 100-mesh screen.

OPW 296 Protective Caps

OPW 296 Protective Caps are for use with OPW 296 and 297SA nozzle spouts. Each cap also comes with a chain and tension spring. The size ordered should be the same size as the spout O.D.

Spout Ordering Specifications

| Product # | Size | | O.D. | | Length | | Weight | | Used On | Description |
|------------|--------------|----|---------|----|--------|-----|--------|------|--|-------------|
| | in. | mm | in. | mm | in. | mm | lbs. | kg | | |
| 296-0040 | 1 1/4 (NPT) | 32 | 1 3/8 | 35 | 9 | 229 | 0.90 | 0.41 | 190-0113; 210-0104; 190-0112 | Brass |
| 296-0060 | 1 1/2 (NPT) | 38 | 1 3/8 | 35 | 9 | 229 | 0.98 | 0.45 | 190-0114; 210-0105 | Brass |
| 296-0080 | 1 1/2 (NPT) | 38 | 1 5/8 | 41 | 9 | 229 | 1.05 | 0.48 | 190-0114; 210-0105 | Brass |
| 297-9020 | 1 1/4 (NPT) | 32 | 1 21/32 | 42 | 8 | 203 | 0.50 | 0.23 | 190-0113; 210-0104; 295SC-0139; 190-0112 | Aluminum |
| 297-9030 | 1 1/2 (NPT) | 38 | 1 29/32 | 48 | 8 | 203 | 0.60 | 0.27 | 190-0114; 210-0105; 295SC-0141 | Aluminum |
| 297-9040 | 2 (NPT) | 51 | 2 3/8 | 60 | 8 | 203 | 0.80 | 0.36 | 190-0115 | Aluminum |
| 297SA-9050 | 1 1/4 (NPSM) | 32 | 1 | 25 | 9 | 229 | 0.60 | 0.27 | 295SA-0135, 0136, 0137 & 295SAC-0156 | Aluminum |
| 297SA-9060 | 1 1/2 (NPSM) | 38 | 1 5/8 | 41 | 7 | 178 | 0.80 | 0.36 | 295SA-0138, 295SAC-0157, 295SAC-0158 | Aluminum |
| 696J-7010 | 1 1/2 (NPSM) | 38 | 2 2/3 | 54 | 7 1/4 | 184 | 0.80 | 0.36 | 295SAJ-0200 | Aluminum |



OPW 296



OPW 297



OPW 297SA
(9050)



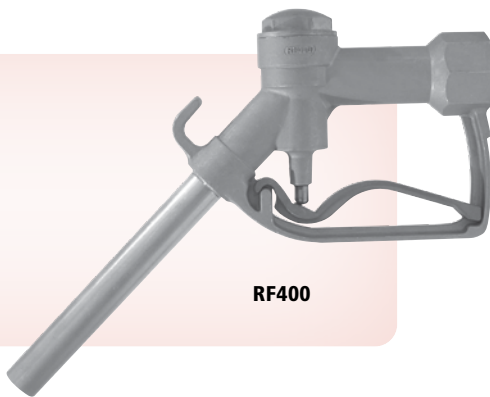
OPW 297SA
(9060)



OPW 696J

Materials

Body: Aluminum
Main Stem: Brass
Main Poppet Disc: Viton®
Spout: Aluminum
Weight: 0.5 lbs, 0.23 kg

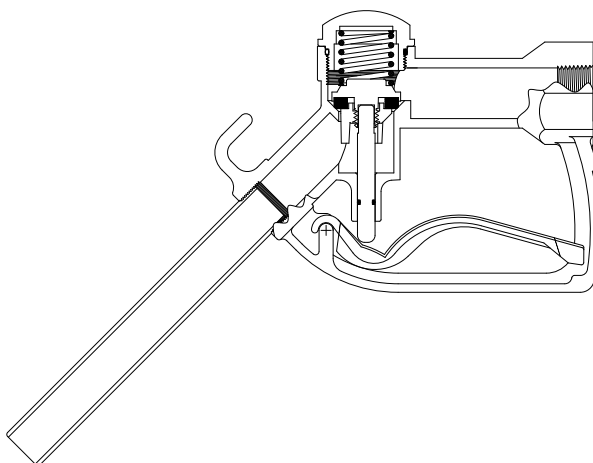


Features

- ◆ UL listed for use in gasoline, diesel and up to 10% ethanol blends. Specific listings available at www.opwglobal.com
- ◆ Manual Nozzle – no automatic shut-off.
- ◆ Built in hanger for quick use in field.
- ◆ **Design working pressure**
 ◆ 50 psi (3.45 bar) maximum pressure

Ordering Specifications

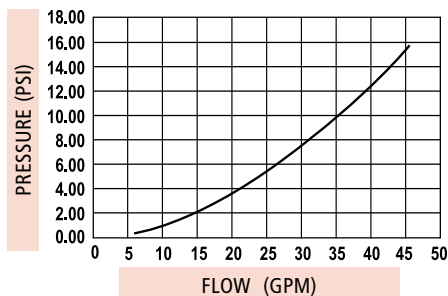
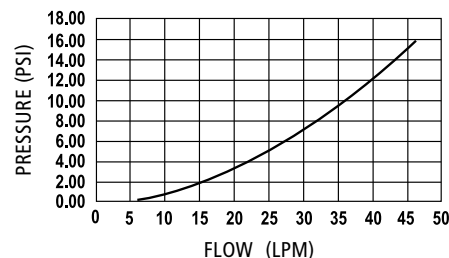
| Product # | Description | Inlet Thread | | Spout Diameter | |
|-----------|--------------------|--------------|----|----------------|----|
| | | in. | mm | in. | mm |
| RF400-75 | ¾", leaded spout | ¾ | 19 | 1 5/16 | 23 |
| RF400-75P | ¾", unleaded spout | ¾ | 19 | 1 3/16 | 20 |
| RF400-10 | 1", leaded spout | 1 | 25 | 1 5/16 | 23 |
| RF400-10P | 1", unleaded spout | 1 | 25 | 1 3/16 | 20 |



OPW RF400 Manual Utility Farm Nozzle

For General Utility Farm Usage

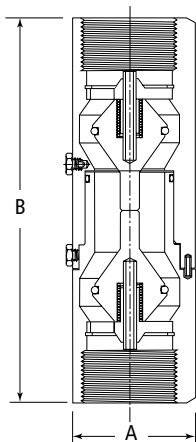
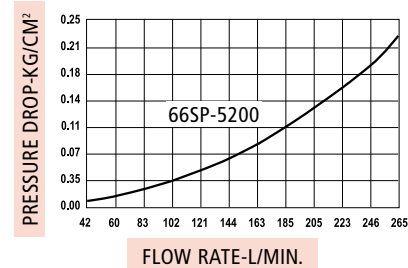
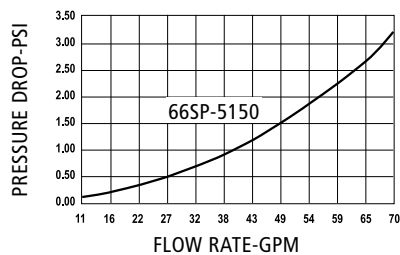
The OPW RF400 nozzle is designed for use in non retail, commercial, industrial and agriculture use where an automatic nozzle is not needed.



OPW 66SP High-Volume Breakaways

The 66SP is designed for installation on fuel dispensing hoses that require a substantial volume of flow, and therefore the potential for a high-volume spill.

The 66SP utilizes shear pin technology to ensure separation at proper pull forces, and limit unwanted valve closures that stop or limit fuel flow. Once separated, a qualified service technician can easily repair the breakaway with an OPW 66PRK Shear Pin Replacement Kit.



Materials

Body: Aluminum

Seals: Viton®, Buna-N and Fluorosilicone

Spring: Stainless steel

Poppet: Aluminum

Weight:

66SP-5150: 1.93 lbs, .87 kg

66SP-5200: 3.80 lbs, 1.72 kg

66SP-5150



66SP-5200



Features

- ◆ **Pull Force** – the 66SP will separate with a maximum pull force of 600 lbs., and limits fuel spillage from either hose end.
- ◆ **Easily Repaired** – after separation, the 66SP can be repaired and put back in service with the OPW 66PRK Shear Pin Replacement Kit.
- ◆ **Heavy-Duty Construction** – physically designed for durability in high-volume environments, including a protective, nickel plated body.
- ◆ **Low Pressure Drop** – valve design ensures superior flow rate for high-volume fills.
- ◆ **Special Seals** – special fluorosilicone (66SP-5200 only) O-rings help protect the valve in harsh, high-volume environments.

Design working pressure

- ◆ 50 psi (3.45 bar) maximum pressure

Ordering Specifications

| Product # | Inlet Thread | Weight | | A | | B | |
|-----------|--------------|--------|------|-----|----|-----|-----|
| | | lbs. | kg | in. | mm | in. | mm |
| 66SP-5150 | 1½" (NPT) | 1.93 | 0.87 | 2¼" | 57 | 7⅝" | 194 |
| 66SP-5200 | 2" (NPT) | 3.80 | 1.72 | 3½" | 89 | 7⅞" | 197 |

Replacement Parts

| Product # | Description |
|------------|---|
| 66PRK-5015 | Shear Pin Replacement Kit for 66SP-5150 |
| 66PRK-5020 | Shear Pin Replacement Kit for 66SP-5200 |

66SP Series Instruction Sheet Order Number: **H40128M**

Materials

Body: Aluminum

Adaptor: Zinc
Aluminum

Seals: Buna-N O-Ring,
Viton® O-Ring

Bearings: Nylon  UL Listed MH4542



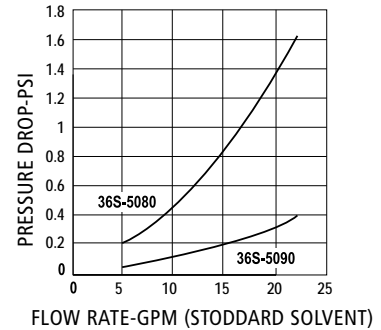
36S-5080

Ordering Specifications

| Product Number | Inlet Thread x Outlet Thread | | lbs. | kg |
|----------------|------------------------------|-----------------|------|------|
| 36S-5080 | 3/4" M x 3/4" F (NPT) | (19 mm x 19 mm) | 0.30 | 0.14 |
| 36S-5090 | 1" M x 1" F (NPT) | (25 mm x 25 mm) | 0.40 | 0.18 |

OPW 36S Hose Swivel

Designed for use with fuel oil nozzles (at inlet only), the OPW 36S provides 360° swivel action. The full-circle swivel reduces the physical strain of aligning the nozzle with the fillpipe.



Materials

Body: Electroless nickel-plated

Bearings: Molded plastic

Seals: Buna-N O-Ring,
felt dust seal, Viton® O-Ring



25-0110

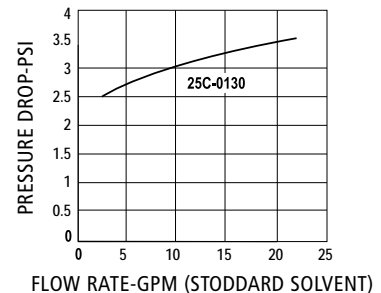
Ordering Specifications

| Product # | Inlet Thread | | Weight | |
|-----------|--------------|----|--------|-----|
| | in. | mm | lbs. | kg |
| 25-0110 | 1 1/4" (NPT) | 32 | 0.95 | .43 |
| 25-0120 | 1 1/2" (NPT) | 38 | 1.06 | .48 |
| 25C-0130* | 1 1/4" (NPT) | 32 | 0.95 | .43 |

*With Check Valve

OPW 25 Hose Swivel

Designed for use with fuel oil nozzles (at inlet only), the OPW 25 provides 360° swivel action. The full-circle swivel reduces the physical strain of aligning the nozzle with the fillpipe.



OPW 2" Single-Plane Hose Swivel

Durable brass construction with high flow rate.

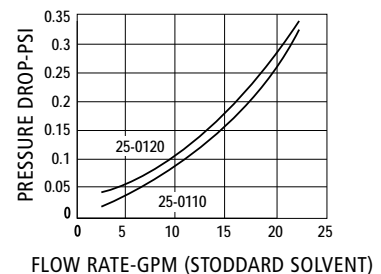
Materials

Body: Brass

Seals: Buna-N O-Rings



| Product # | in. | mm | lbs. | kg |
|-----------|-----|------|------|-----|
| 2-0055 | 2 | 50.8 | 1 | .45 |



Materials

Body: Electroless nickel-plated

Bearings: Molded plastic

Seals: Buna-N O-Ring,
felt dust seal, Viton® O-Ring

| Product # | Description |
|-------------|----------------------------------|
| 295SRK-0001 | 25 and 295 Series 1", 1 1/4" NPT |
| 295SRK-0002 | 25 and 295 Series 1 1/2" NPT |

OPW 295SRK

Designed for use on 25 Series swivels and 295 nozzles, the OPW 295SRK consists of a dust seal, 2 O-rings, 3 button-head screws, hex key and thread sealant.

OPW 29 Check Valve

The OPW 29 is designed for use between the hose and nozzle, and helps prevent draining of the hose when the power is shut-off.

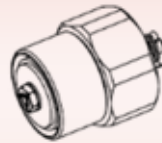
Materials

Body: Bronze

Spring: Bronze

Stem: Bronze

Disc: Buna-N



29-0004

Ordering Specifications

| Product # | Inlet | | Outlet | |
|-----------|----------------|----|----------|----|
| | in. | mm | in. | mm |
| 29-0004 | 1" F (NPT) | 25 | 1" M | 25 |
| 29-0016 | 1 1/2" F (NPT) | 38 | 1 1/2" M | 38 |

Features

- ◆ External-type inlet check valve.
- ◆ Standard pipe threads.
- ◆ Poppet opens at 2 1/2 PSI for 1" size;
1 1/2 PSI for 1 1/2" size

Hose Retractors



- Spring Balance Hose Retractors.....195 - 197
- Counterweight Hose Retractors..... 198

Materials

Housing: Cast aluminum

Cable: Black polyester

Post: Aluminum



Nozzle Hook
and Hood Kit Not
Sold by OPW.

POMEKO 102 Spring Balance Single Hose Retractors

POMEKO 102 Spring Balance Single Hose Retractors keep excess hose off the ground and out of the way, prolonging hose life and reducing potential hazards. The POMEKO 102 is a California Air Resources Board (CARB) certified Stage II component for use with single and dual hose dispensers as per Executive Order G-70-52-AM.

Features

- ◆ Easy to Use – the spring-loaded reel and stretch-resistant cable provide smooth and steady tension throughout hose extension and return.
- ◆ Easy to maintain – the removable sideplate provides full access to the mechanism for easy tension adjustment and unit maintenance. A convenient safety thumb screw is provided to lock the reel in place during tension adjustment.
- ◆ Field Adjustable for Various Hose, Nozzle, Swivel, Breakaway Combinations – no need for upgrading components if a breakaway or swivel is added to the hose assembly. Simply change the tension setting on the spring-loaded hose reel.
- ◆ Multiple Mounting Options – the POMEKO 102 retractor housing is tapped on the top for bolting to overhead crossbars, and on the side for mounting to vertical posts. The 102 is available as a retractor kit (including post, retractor and mounting hardware) or as separate components. Models are also available for aboveground storage tank (AST) applications. AST models include a 44" (112 cm) post with a freestanding base.

102 Spring Balance Hose Retractor
Instruction Sheet Order Number:
H15853PA



Post Mounted

NOTE: See OPW's Website at www.opwglobal.com for product instruction sheets, trouble-shooting guides, how-to-use guide and to view the Do's & Don'ts at the Gas Pump video.

Ordering Specifications

Vertical Retractor Kits (Box, Post, Bracket, Foot & Hardware)

| Model Number | Mounting Method | Clamp Fits | Weight | |
|--------------|-----------------------------|---------------------------|--------|-----|
| | | | lbs. | kg |
| 6102-1039P | 39" Retractor/Post Kit | (Hose Clamp Not Included) | 12 | 5.4 |
| 6102-1078P | 78" Retractor/Post Kit | (Hose Clamp Not Included) | 14 | 6.4 |
| 6102-AST | 44" AST Retractor /Post Kit | (Hose Clamp Not Included) | 9 | 4.1 |

Ordering Specifications

Separate Retractor Components (Box Only)

| Model Number | Description | Mounting Method | Clamp Fits | | | | Weight | |
|--------------|---|---------------------------------|---------------------------|----|--------------|----------|--------|-----|
| | | | Hose O.D. | | Hose I.D. | | lbs. | kg |
| | | | in. | mm | in. | mm | | |
| 6102-1000 | Standard Duty Retractor Box, 2 -10 lb retraction strength | Overhead Crossbar/Vertical Post | (Hose Clamp Not Included) | | | | 7 | 3.2 |
| 6102-1100 | Heavy Duty Retractor Box, 12-20 lb retraction strength | Overhead Crossbar/Vertical Post | | | | | 7 | 3.2 |
| 6102-4000 | | Overhead Crossbar/Vertical Post | 1 3/8" | 35 | 1" | 25 | 7 | 3.2 |
| 6102-6000 | | Overhead Crossbar | 1 1/32" | 26 | 5/8" or 3/4" | 16 or 19 | 7 | 3.2 |
| 6102-8000 | | Overhead Crossbar | 1" | 25 | 5/8" | 16 | 7 | 3.2 |

*POMECO recommends using C05238M, C05261M or P100-3F/P100-44/P100-2AST for use with 102 Series retractors.
Other size tubes and clamps available upon request.



Hose Clamp

Ordering Specifications

Hose Clamps

| Model Number | Hose Clamp Size † |
|--------------|---------------------------------------|
| PB-1340 | Coaxial Hose |
| PB-1344 | Balanced Coaxial, Goodyear Premier |
| PB-1373 | Standard 1" O.D. Hose (5/8" I.D.) |
| PB-1394 | Standard 1 1/8" O.D. Hose (3/4" I.D.) |
| PB-1396 | Standard 1 3/8" O.D. Hose (1" I.D.) |
| PB-1398 | Standard Hose (3/4" I.D.) |
| PB-1527 | Standard Hose (1/2" I.D.) |

† Other sizes available upon request

Options Replacement Parts

| Model Number | Hose Clamp Size |
|-------------------|-------------------------------------|
| C05238M | Post Kit, 39" (99 cm), 1 1/8" x 2" |
| C05261M | Post Kit, 78" (198 cm), 1 1/8" x 2" |
| H15212M | 10 ft. Replacement Cable |
| P338SPOOL | Spool of Retractor Cable, 338 ft. |
| H15210M (P102-02) | Replacement Cable Guide |
| H15211M | Replacement Reel |
| P100-4STF | AST Replacement Base |
| P100-2AST | Sliding Bracket (AST) |
| P33P | Head Kit |

Materials

Housing: Cast aluminum

Cable: Black polyester

Bracket: Steel

Features

- ◆ Easy to Install – each model number designates a custom designed retractor package that mounts in the canopy of a particular manufacturers MPD. Packages are shipped complete with the appropriate number of retractors and all the necessary mounting hardware for a clean, professional installation.
- ◆ Easy to Use – the spring-loaded reels and stretch-resistant cables provide smooth and steady tension throughout hose extension and return.
- ◆ Easy to Maintain – the removable sideplate provides full access to the mechanism for easy tension adjustment and unit maintenance. A convenient safety thumb screw is provided on each retractor to lock the reel in place during tension adjustment.



POMEKO 102 Spring Balance MPD Hose Retractor Packages

POMEKO 102 Spring Balance MPD Hose Retractors keep excess hose off the ground and out of the way, prolonging hose life and preventing extra length hoses from cluttering the island. The 102 MPD hose retractors are especially well-suited for use on Multiple Product Dispensers (MPD) with Stage II Vapor Recovery hose/nozzle assemblies. The POMEKO 102 is a California Air Resources Board (CARB) certified Stage II component for use with MPDs as per Executive Order G-70-52-AM.



Ordering Specifications

| Model Number | Manufacturer/Dispenser | Hoses Per Side*** | Weight | |
|--------------|-----------------------------|-------------------|--------|------|
| | | | lbs. | kg |
| 6102-DW1037 | Dresser Wayne (37" Frame) | 1 | 40 | 18.2 |
| 6102-DW1048 | Dresser Wayne (48" Frame) | 1 | 50 | 22.7 |
| 6102-DW2037 | Dresser Wayne (37" Frame) | 2 | 50 | 22.7 |
| 6102-DW2048 | Dresser Wayne (48" Frame) | 2 | 58 | 26.3 |
| 6102-DW3048 | Dresser Wayne (48" Frame) | 3 | 72 | 32.6 |
| 6102-GB1N | Gilbarco (Advantage Narrow) | 1 | 46 | 20.9 |
| 6102-GB1W | Gilbarco (Advantage Wide) | 1 | 50 | 22.7 |
| 6102-EC01 | Gilbarco (Encore) | 1 | 77 | 34.9 |
| 6102-EC02 | Gilbarco (Encore) | 2 | 77 | 34.9 |

*Specify dispenser model and serial number when ordering

***Hose clamps must be ordered separately for MPD models

NOTE: All 6102 MPDs come with two brackets and the number of hose retractors per side.

Options Replacement Parts

| Model Number | Hose Clamp Size |
|--------------|---------------------------|
| H15210M | Replacement Cable Guide |
| H15212M | Replacement Cable -10 ft. |
| H15211M | Replacement Reel |
| D02147M | Replacement Housing |

| Model Number | Hose Clamp Size |
|------------------|----------------------------|
| H15265M (P102-2) | Sliding Bracket |
| C05239M | Foot (Bottom) |
| D02628M | Bracket Only for 06102-DW3 |
| D02629M | Bracket Only for 06102-DW4 |



Hose Clamp

Ordering Specifications Hose Clamps

| Model Number | Hose Clamp Size † |
|--------------|---------------------------------------|
| PB-1344 | Balanced Coaxial, Goodyear Premier |
| PB-1373 | Standard 1" O.D. Hose (5/8" I.D.) |
| PB-1394 | Standard 1 1/8" O.D. Hose (3/4" I.D.) |
| PB-1396 | Standard 1 3/8" O.D. Hose (1" I.D.) |
| PB-1398 | Standard Hose (3/4" I.D.) |

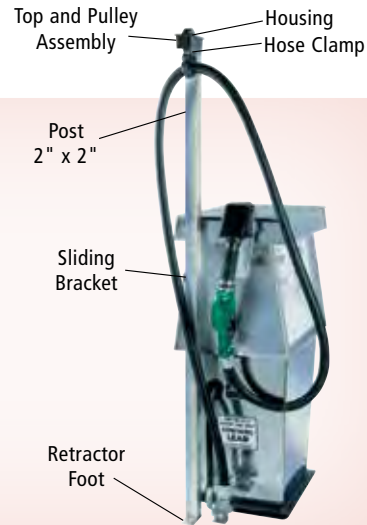
† Other sizes available upon request

POMECO 100 Counterweight Hose Retractors

POMECO 100 Counterweight Hose Retractors keep excess hose off the ground and out of the way, prolonging hose life and reducing potential hazards. The POMECO 100 is a California Air Resources Board (CARB) certified Stage II component for use with single and dual hose dispensers as per Executive Order G-70-52-AM.

Materials

Housing:
Impact-resistant plastic
Cable: Black polyester
Post: Aluminum (2" x 2")



Features

- ◆ Easy to Use – counterweights are precisely matched to each hose configuration to ensure that a minimal pulling force is needed throughout hose extension.
- ◆ Easy to Maintain – the 100 has just two moving parts, ensuring a long service life with a minimum of maintenance.
- ◆ Multiple Hose Configurations – the 100 is available in a multitude of configurations to meet virtually any conventional or vapor recovery hose/nozzle configuration. Models are also available for air and water hose applications to keep hoses clear of vehicles when not in use.

Ordering Specifications

Conventional and Vapor Recovery Applications

| Model # | Hose Configuration | Hose Length | | Clamp Fits | | Hose I.D. | | Height | | Weight | |
|-----------|----------------------|-------------|-----------|---------------------------|----|------------|----------|--------|-----|--------|------|
| | | | | Hose O.D. | | | | | | | |
| | | ft. | m | in. | mm | in. | mm | in. | cm | lbs. | kg |
| 6100-4000 | Conventional | 12-14 | 3.7 - 4.3 | 1 3/8 | 35 | 1 | 25 | 79 | 201 | 33 | 15.0 |
| 6100-5000 | Conventional | 15-18 | 4.6 - 5.5 | 1 3/8 | 35 | 1 | 25 | 92 | 234 | 38 | 17.2 |
| 6100-6000 | Conventional | 12-14 | 3.7 - 4.3 | 1 1/2 | 26 | 5/8 or 3/4 | 16 or 19 | 79 | 201 | 30 | 13.6 |
| 6100-7000 | Conventional | 15-20 | 4.6 - 6.1 | 1 1/2 | 26 | 5/8 or 3/4 | 16 or 19 | 92 | 234 | 31 | 14.1 |
| 6100-8000 | Conventional | 12-14 | 3.7 - 4.3 | 1 | 25 | 5/8 | 16 | 79 | 201 | 29 | 13.2 |
| 6100-9000 | Conventional | 15-20 | 4.6 - 6.1 | 1 | 25 | 5/8 | 16 | 92 | 234 | 30 | 13.6 |
| 6100-AGNV | Inverted Coaxial | 11-13 | 3.4 - 4.0 | (Hose Clamp Not Included) | | | | 79 | 201 | 33 | 15.0 |
| 6100-AGLC | Coaxial | 11-13 | 3.4 - 4.0 | (Hose Clamp Not Included) | | | | 79 | 201 | 26 | 11.8 |
| 6100-AGBR | Coaxial w/ Breakaway | 11-13 | 3.4 - 4.0 | (Hose Clamp Not Included) | | | | 79 | 201 | 31 | 14.1 |

100 Series Counterweight Hose Retractor Instruction Sheet
Order Number: **H15852PA**

See page 197 for hose clamp
Ordering Specifications

NOTE: See OPW's Website at www.opwglobal.com for product instruction sheets, trouble-shooting guides, how-to-use guide and to view the Do's & Don'ts at the Gas Pump video.

Options and Replacement Parts

| Part # | Description | Counterweight Length | | Weight | |
|---------|--|----------------------|------|--------|------|
| | | in. | cm | lbs. | kg |
| H15262 | Counterweight for 4000/AGNV Models | 27 | 68.5 | 24 | 10.8 |
| H15263 | Counterweight for 5000 Model | 31 | 78.7 | 27 | 12.2 |
| H15260 | Counterweight for 6000, 8000 and AGLC Models | 20 | 50.8 | 17 | 7.7 |
| H15261 | Counterweight for 7000, 9000, AGBR Models | 25 | 63.5 | 22 | 9.9 |
| H15265M | Sliding Bracket, Dispenser Mount | | | | |
| C05235M | Replacement Tube, 2" x 2" x 75" (191 cm) | | | | |
| C05236M | Replacement Tube, 2" x 2" x 88" (224 cm) | | | | |

| Part # | Description |
|-----------|--|
| D02671M | Replacement Housing, Plastic |
| H15266 | Top and Pulley Assembly |
| H15264 | 12 ft. Replacement Cable |
| C05239M | Retractor Foot |
| P100-4STF | Freestanding Retractor Base |
| P338SPOOL | Replacement Cable Spool, 338 ft. of wire |
| H15210M | Cable Guide |
| H13588M | Retaining Ring |

Aboveground Storage Tank Equipment

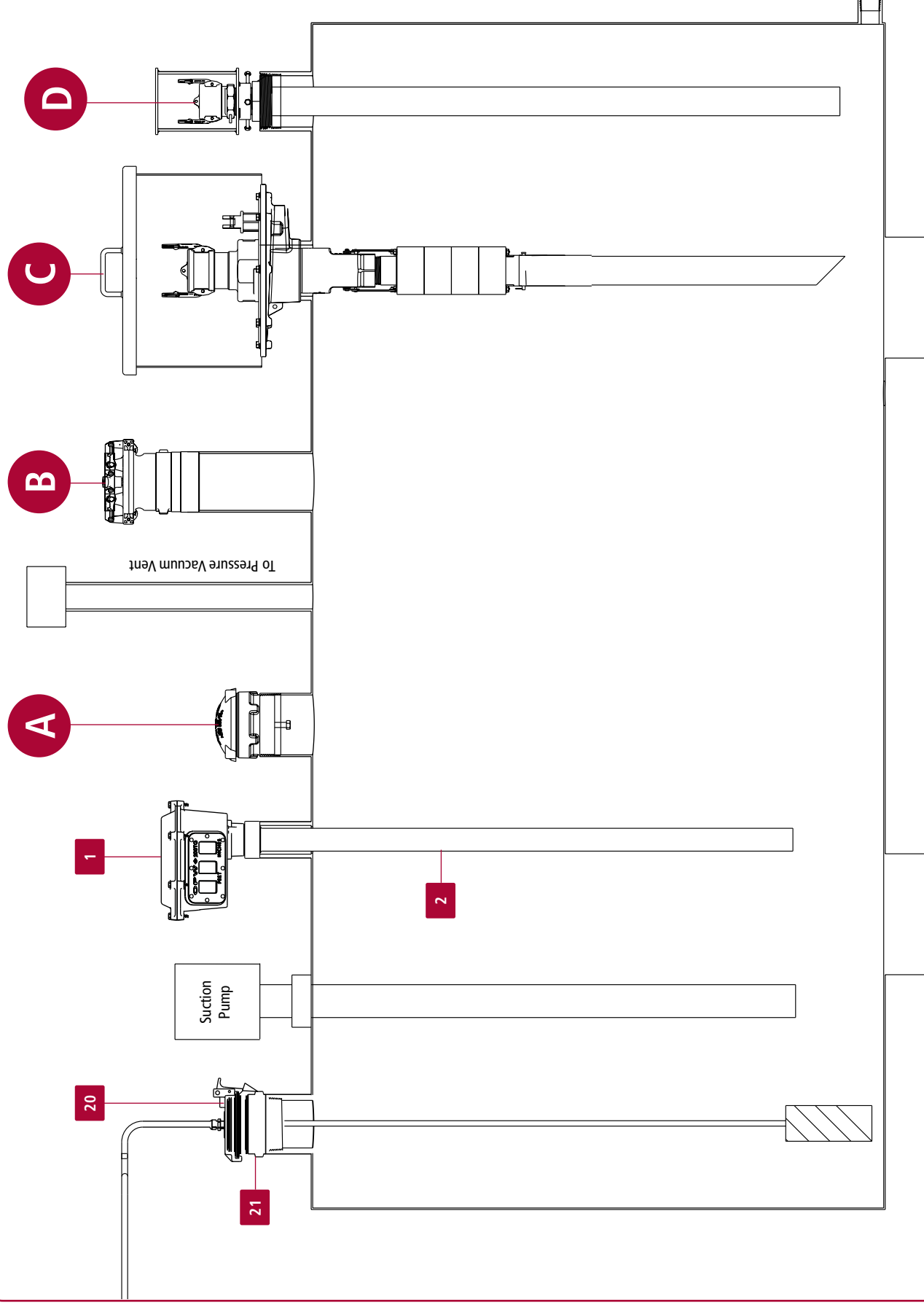


Above Ground Tank Diagrams

| | |
|--|-----------|
| – Non-EVR Direct Fill AST Application | 200 - 201 |
| – Non-EVR Remote Fill / Remote Dispensing AST Application..... | 202 - 203 |
| • Spill Containment | 204 - 205 |
| • Overfill Prevention | 206 - 207 |
| • Fuel Delivery Coupler / Accessories | 208 - 209 |
| • Mechanical Tank Gauges | 210 |
| • Tank Alarms | 211 |
| • Tank Venting | 212 - 215 |
| • Anti-Siphon Valves | 216 |
| • Solenoid Valves | 217 |
| • Two-Way Ball Valve | 218 |
| • Emergency Shut-Off Valves | 219 |
| • Swing Check Valves | 220 |

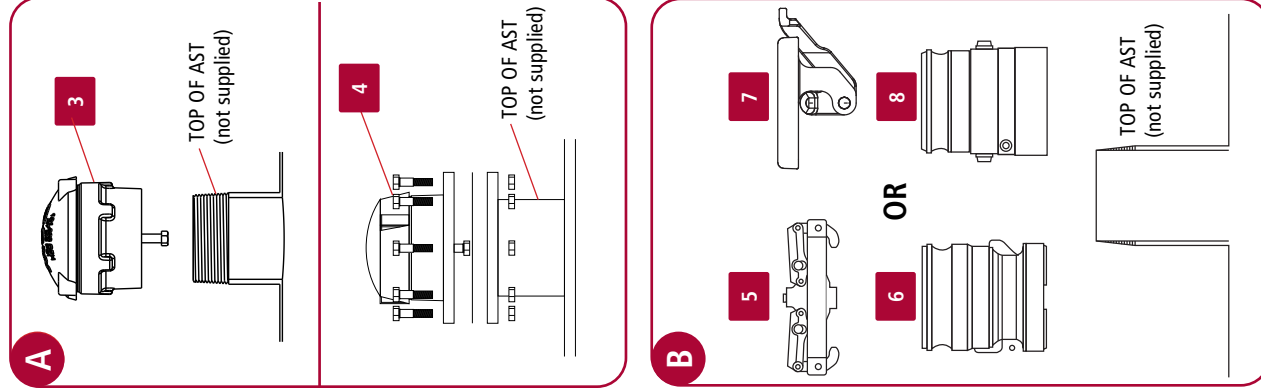
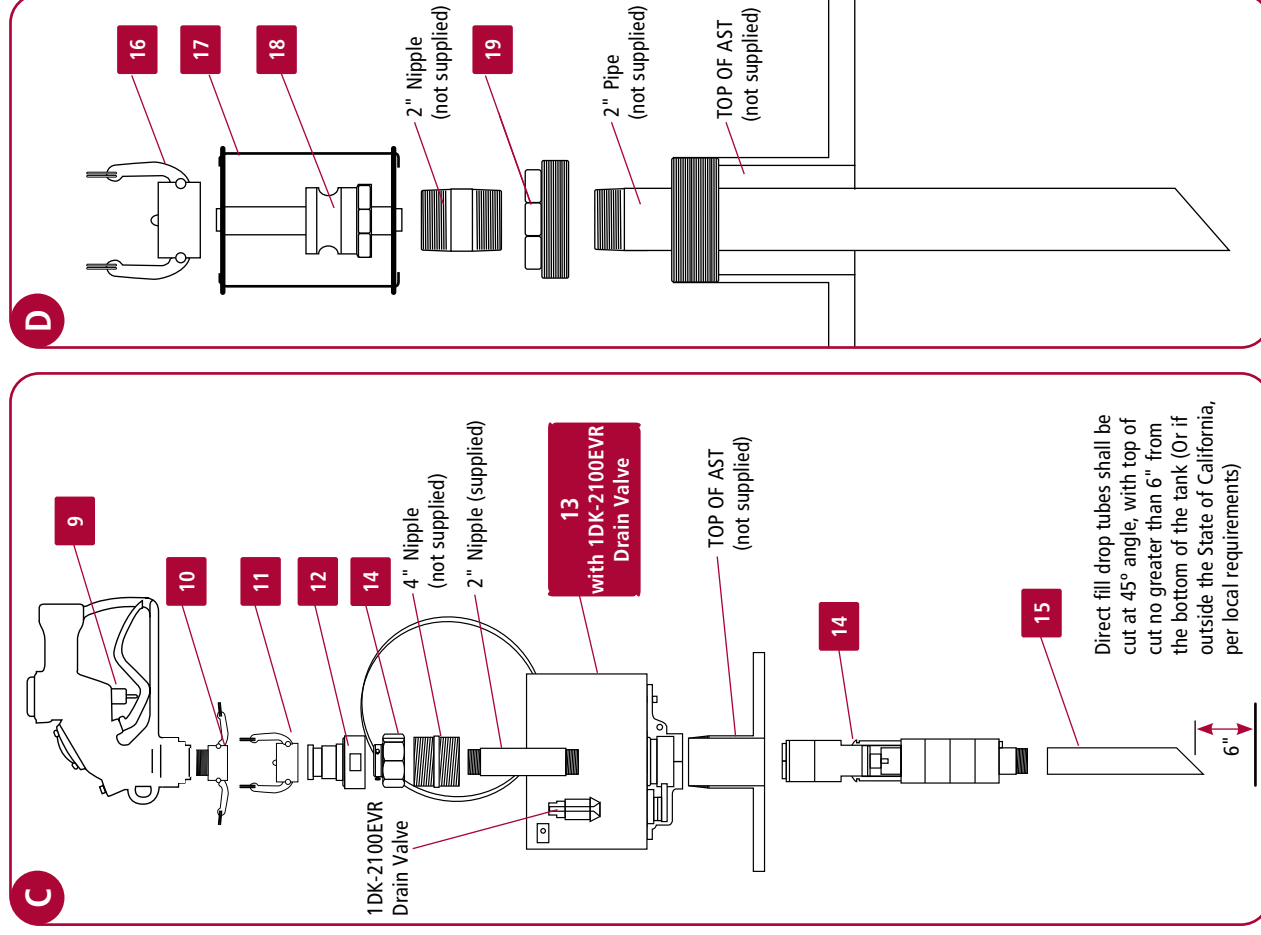
Above Ground Storage Tank - Direct Fill

Typical Non-EVR Direct Fill AST Application



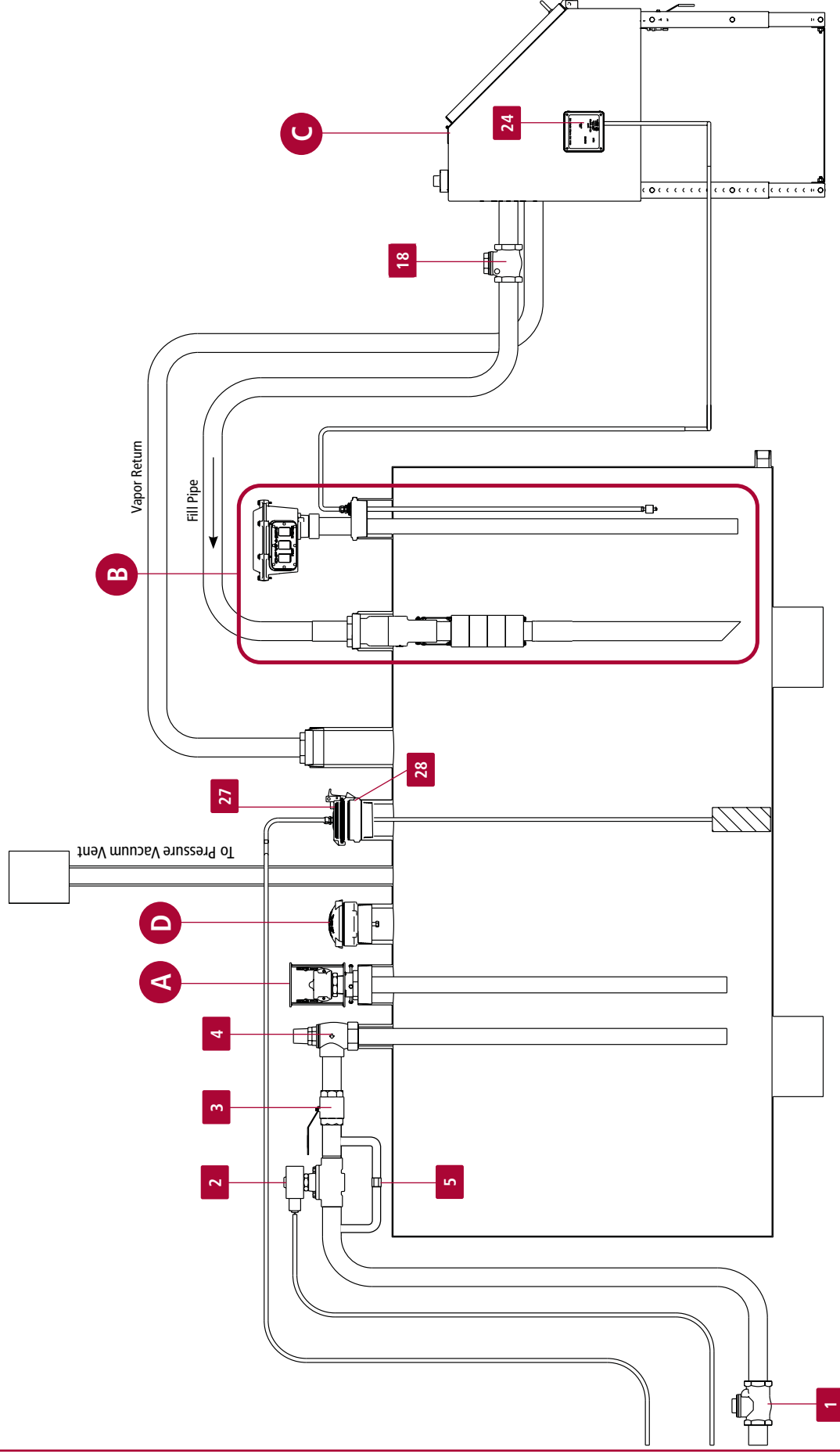
| PRODUCT KEY | | |
|-------------|--|---------|
| | OPW PART / DESCRIPTION | PAGE |
| 1 | 200TG-ENG Series Tank Gauge (optional / see Note below) | 210 |
| 2 | 61T Series Drop Tube | 210 |
| 3 | 301 Series Emergency Vent - NPT Mount | 212 |
| 4 | 301 Series Emergency Vent - Flanged Mount | 212 |
| 5 | 1711T-7085-EVR Cap | 106 |
| 6 | 1611AV Series Vapor Recovery Adaptor | 220 |
| 7 | 1711LPC-0300 Low Profile Cap | 220 |
| 8 | 61VSA Series Vapor Recovery Adaptor | 105 |
| 9 | 190 or 210 High-Flow Bulk Nozzle | 220-220 |
| 10 | 633BD Kamlok™ Coupler | 208 |
| 11 | A) 634B-0150 Dust Cap or 634BK-0090 Lockable Dust Cap fits 633AST-2061 Spout Adaptor B) 634B-0170 Dust Cap or 634BK-0100 Lockable Dust Cap fits 633AST-3061 Spout Adaptor | 208 |
| 12 | 633AST-2061 (2" x 2") or 633AST-3061 (3" x 3") - Tank Inlet Spout Adaptor | 208 |
| 13 | 332 Series Spill Container | 204 |
| 14 | 61fSTOP-XXXX Series Overfill Prevention Valve | 206 |
| 15 | 61FT Series Drop Tube | 208 |
| 16 | 634B-0150 or 634BK-0090 Cap | 208-209 |
| 17 | 204247 Fill Prevention Cage | 208 |
| 18 | 633AST Series Adaptor | 208 |
| 19 | 53-00XX Series Double Tapped Bushing | 133 |
| 20 | 62M Series Monitoring Probe Cap & Adaptor | 107 |
| 21 | FSA-400 Face Seal Adaptor | 80 |

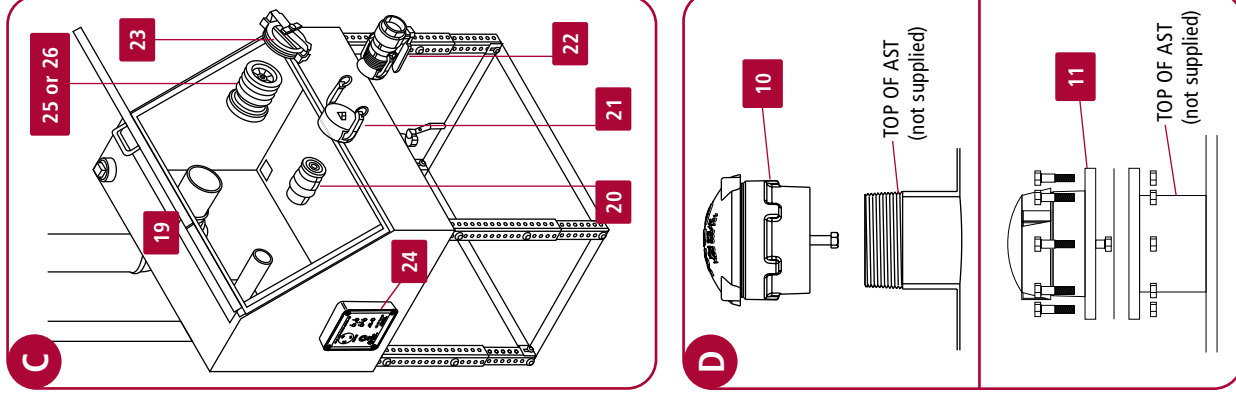
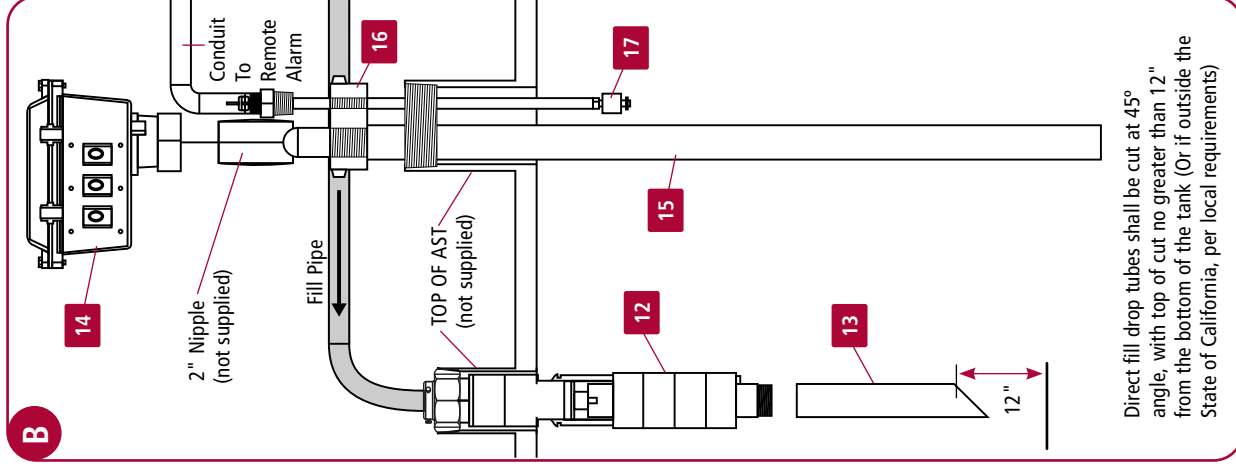
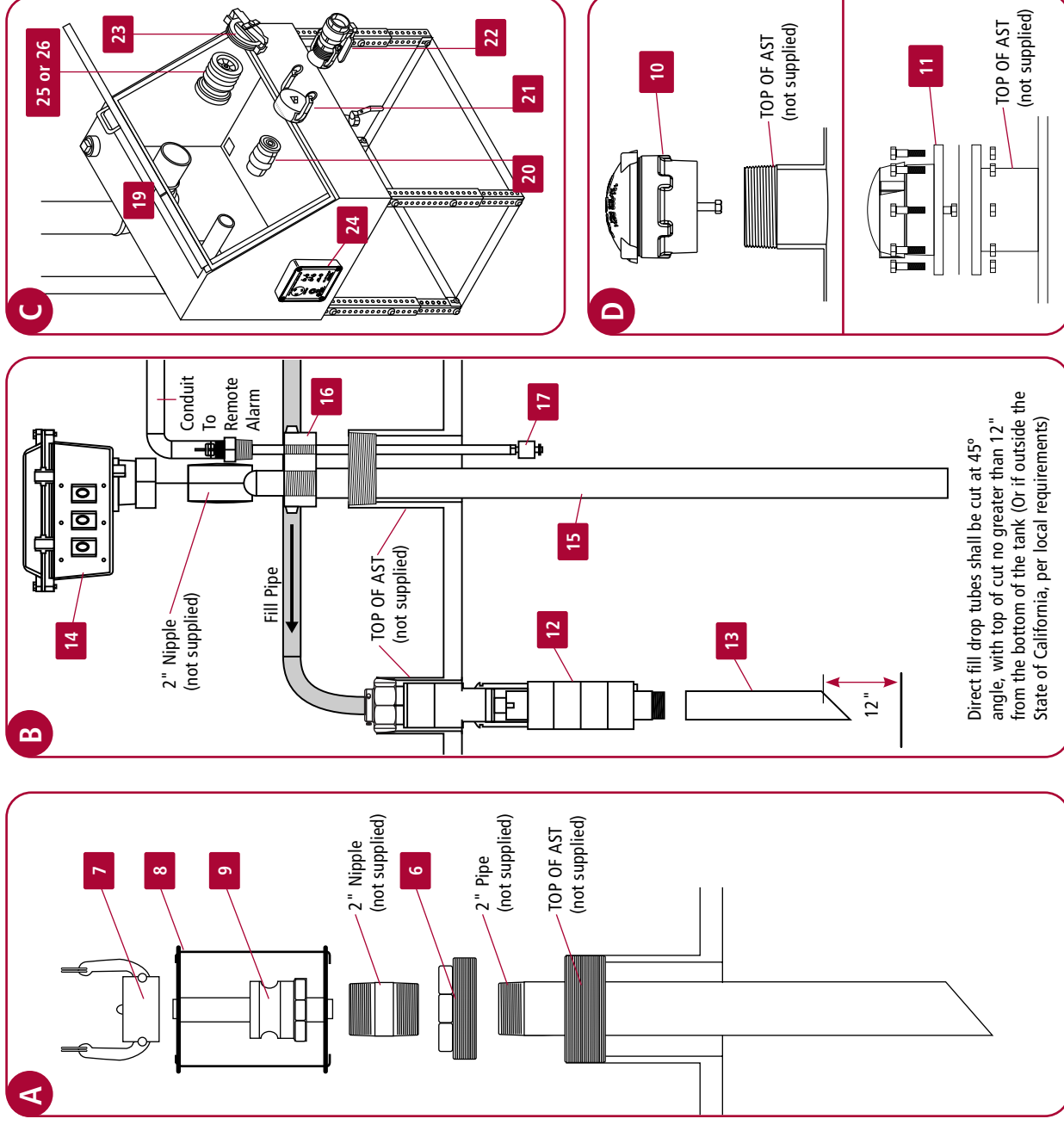
NOTE: The OPW 200TG and 144TA/444TA are not required for EVR compliance, but if a tank gauge or tank alarm is used on your tank that these two OPW products are the only CARB AST EVR certified tank gauge and alarm.



Above Ground Storage Tank - Remote Fill - Remote Dispensing

Typical Non-EVR Remote Fill / Remote Dispensing AST Application



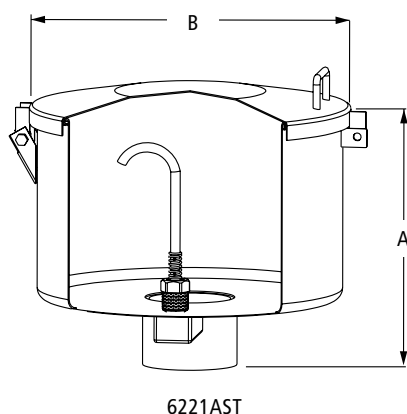
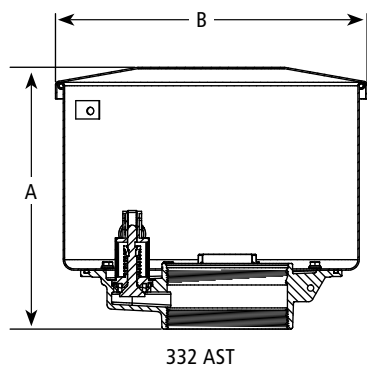


| PRODUCT KEY | | |
|-------------|--|---------|
| KEY | OPW PART / DESCRIPTION | PAGE |
| 1 | 178S Series Emergency Valve | 219 |
| 2 | 821 Series Solenoid Valve | 217 |
| 3 | 21BV Series Ball Valve | 218 |
| 4 | 199ASV Series Anti-Siphon Valve | 216 |
| 5 | 82RV Series Pressure Relief Valve | 217 |
| 6 | 53-00XX Series Double Tapped Bushing | 133 |
| 7 | 634B-0150 or 634BK-0090 Cap | 208-209 |
| 8 | 204247 Fill Prevention Cage | 208 |
| 9 | 633AST-2190 Adaptor | 208 |
| 10 | 301 Series Emergency Vent - Threaded Mount | 212 |
| 11 | 301 Series Emergency Vent - Flanged Mount | 212 |
| 12 | 615TOP-XXXX Series Overfill Prevention Valve | 206-207 |
| 13 | 61FT Series Drop Tube | 207 |
| 14 | 200TG-ENG Series Tank Gauge (optional / see Note below) | 210 |
| 15 | 61T Series Drop Tube | 210 |
| 16 | TGTA-0400 4" Gauge/Alarm Combo Fitting (optional) | 211 |
| 17 | 44TA-LIFS Liquid Level Float Switch | 211 |
| 18 | 175 Series Swing Check Valve | 220 |
| 19 | 6211R Series Remote Spill Container | 205 |
| 20 | 1611AN-0200 or 1612AN-0200 - 2" Remote Fill or 1611AN-0300 or 1612AN-0300 - 3" Remote Fill Kamvalok Adaptor | 209 |
| 21 | A) 634B-0140 Dust Cap fits 633AST-0150 Adaptor B) 634B-0150 Dust Cap fits 633AST-2061 or 633AST-0200 Adaptor C) 634B-0160 Dust Cap fits 1611AN-0200 or 633ST-0250 or 1611AN-2040 or 1612AN-2040 Adaptors D) 634B-0170 Dust Cap fits 1611AN-3060 or 1612AN-3060 Adaptors | 208 |
| 22 | 1711D / 1712D Series Kamvalok Coupler | 209 |
| 23 | 1711T-7085-EVR Cap or 1711LPC-0300 Low Profile Cap | 106 |
| 24 | 144TA/444TA Series Tank Alarm (optional / see Note below) | 211 |
| 25 | 1611AV Vapor Recovery Adaptor | 105 |
| 26 | 61VSA Series Vapor Recovery Adaptor | 104 |
| 27 | 62M Series Monitoring Probe Cap & Adaptor | 107 |
| 28 | FSA-400 Face Seal Adaptor | 80 |

NOTE: The OPW 200TG and 144TA/444TA are not required for EVR compliance, but if a tank gauge or tank alarm is used on your tank that these two OPW products are the only CARB AST EVR certified tank gauge and alarm.

POMECO/OPW 332AST & 6221AST Direct-Fill Above Ground Storage Tank Spill Containers

POMECO/OPW Direct-Fill AST Spill Containers are designed to prevent spilled product from entering soil near the fill and vapor return riser connections on an above ground storage tank during normal tank filling operation. The spill containers catch spillage to help prevent soil contamination and groundwater pollution. POMECO/OPW Direct-Fill AST Spill Containers thread on the top of an above ground tank and allow for drainage of spilled product back into the tank.



Dimensions

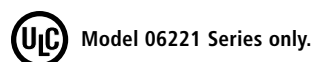
| Model # | Capacity | | A | | B | |
|-------------|----------|-------|-----|----|-----|----|
| | gal. | liter | in. | cm | in. | cm |
| 6221 | 7 | 26.5 | 14½ | 37 | 17 | 43 |
| | 3.5 | 13.2 | 9¼ | 24 | 17 | 43 |
| 332 | 7 | 26.5 | 14 | 35 | 17 | 43 |

Features

- ◆ **Easy Installation** – 4" NPT threaded base screws directly to the tank riser pipe. No further adjustments are needed
- ◆ **Integral Drain Valve** – allows high-speed drainage of spilled product back into the tank
- ◆ **Capacity** – available in 7-gallon (26.5 liter) container capacity. Larger 7-gallon capacity spill containers provide additional clearance for 61 fSTOP Overfill Prevention Valves (3.5 gallon-221 only)
- ◆ **Rain-Shedding Cover Design** – hooded cover design helps prevent water or snow entry by extending the lip of the cover over the body of the spill container
- ◆ **Welded-Hinge, Lockable Hatch** – the cover includes a provision for a padlock and a welded-hinge assembly for added security
- ◆ **12 Gauge Epoxy-Powder Coated Construction** – heavy-duty materials, compatible with hydrocarbons, for long service life and added security
- ◆ **332AST and 6221AST Spun Steel Design** – spun steel construction provides a lightweight, one-piece design for easy installation and a clean, sleek appearance on above ground tanks.



- ◆ **6211AST Heavyweight, Welded Base Design** – Thick, welded stainless steel base and walls provide solid strength for heavy-duty applications
- ◆ **All Models Are ULC Listed** – clearly labeled to identify the listing
- ◆ **CARB EVR Certified**



332AST Spill Containers
Instruction Sheet Order Number: 203168

6211-AST Spill Containers
Instruction Sheet Order Number: 202207

Ordering Specifications:

CARB APPROVED AST EQUIPMENT

| Product # | Description | Liters | lbs. | kg |
|--------------|---|----------------------|------|-------|
| 332-ASTW74 | 7 gallon, 4.0" NPT EVR Approved | 26.4 liter, 4.0" NPT | 38 | 17.23 |
| 6221-ASTW32 | 3.5 gallon, 2.0" NPT White - No Drain Valve | 13.2 liter, 4.0" NPT | 18 | 8.16 |
| 6221-ASTW34 | 3.5 gallon, 4.0" NPT White - No Drain Valve | 13.2 liter, 4.0" NPT | 19 | 8.61 |
| 6221-ASTW72 | 7 gallon, 2.0" NPT White | 26.4 liter, 2.0" NPT | 20 | 9.07 |
| 6221-ASTW74 | 7 gallon, 4.0" NPT White | 26.4 liter, 4.0" NPT | 25 | 11.33 |
| 6211SS-AST74 | 7 gallon, AST Stainless Steel Spill Container | 26.4 liter, 4.0" NPT | 25 | 11.33 |

Listings and Certifications

CARB Certified AST Phase I Enhanced Vapor Recovery (EVR) System

Features

- ◆ **Easy Installation** – a 4" flexible boot on the back panel allows for a quick, simple connection to the remote fill or vapor lines. Optional reducer inserts are available to accommodate 3" and 2" piping connections
- ◆ **Models to Accommodate Various Fill Pipe Configurations** – available in 15, 20 and 30-gallon container capacity. Smaller 15-gallon models are designed for a single-fill or vapor return connection. Larger 20 and 30-gallon models accept both fill and vapor return piping in a dual-port configuration. The 30-gallon model will accommodate both fill and vapor return piping in a single-port configuration and allow the use of 3" Dry Disconnects (OPW 1611AN and 1711D) in a dual-port configuration
- ◆ **Rain-Shedding Cover Design** – hooded cover design helps prevent water or snow entry by extending the lip of the cover over the body of the spill container
- ◆ **12-Gauge Epoxy-Powder Coated Steel or Stainless Steel Containment Box** – heavy duty materials, compatible with hydrocarbons, for long service life and added security



- ◆ **Welded-Hinge, Lockable Hatch** – cover includes a provision for a padlock and a welded-hinge assembly for added security
- ◆ **Easy Product Drainage** – lockable ball valve drain provides for quick and easy product removal
- ◆ **Height Adjustable** – adjustable legs enable the spill container to be set at a variety of heights, from 16½" to 30". Each leg is independently adjustable to account for uneven ground conditions
- ◆ **CARB Certified**
- ◆ **Custom Sizes Available Upon Request**

Ordering Chart

| 6 | R – | | | | |
|-------|-----|----|---|----|----|
| 211 | | 15 | 0 | B2 | L |
| 211SS | | 20 | 1 | B3 | LD |
| | | 30 | 2 | B4 | N |
| | | | | N | ND |

211 – 12 Gauge Powder-Coated Steel Construction
211SS – Stainless Steel Construction

15 – 15 Gallon Capacity
20 – 20 Gallon Capacity
30 – 30 Gallon Capacity

0 – No entry holes
1 – 1, 4" Entry hole
2 – 2, 4" Entry holes (30 Gallon Only)

B – Booted entry fittings in holes
N – No fittings in holes
2 – 2" Fitting
3 – 3" Fitting
4 – 4" Fitting

L – Adjustable legs and No base drain valve
LD – Adjustable legs with base drain valve
N – No legs and No base drain valve
ND – No legs with base drain valve

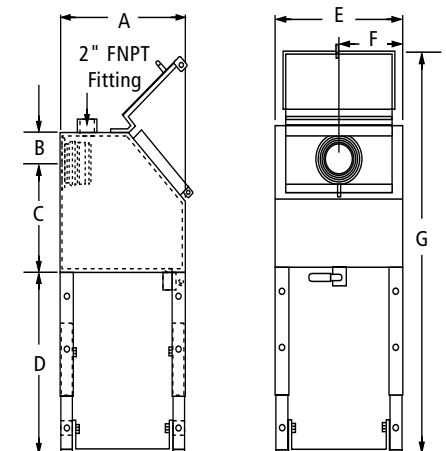
Note: an item must be selected for each column.

Dimensions

| | 15 Gallon | | 20 Gallon | | 30 Gallon | |
|---|------------------------|------------|-------------------------|------------|-------------------------|------------|
| | Weight 91 lbs. (41 kg) | | Weight 135 lbs. (61 kg) | | Weight 175 lbs. (79 kg) | |
| | in. | cm | in. | cm | in. | cm |
| A | 18½ | 46 | 24 | 61 | 21 | 53 |
| B | 7¾ | 19 | 7½ | 19 | 10½ | 27 |
| C | 13⅝ | 35 | 16½ | 42 | 16½ | 42 |
| D | 16½ to 30 | 42 to 76 | 16½ to 30 | 42 to 76 | 16½ to 30 | 42 to 76 |
| E | 18½ | 46 | 24 | 61 | 34 | 86 |
| F | 9⅞ | 23 | 12 | 30½ | 9½ | 24 |
| G | 47 to 60½ | 119 to 154 | 56½ to 80 | 144 to 203 | 56½ to 80 | 144 to 203 |

POMECO/OPW 211-RMOT Remote-Fill Above Ground Storage Tank Spill Containers

POMECO/OPW Remote-Fill AST Spill Containers are designed to prevent spilled product from entering soil near the remote, horizontal-fill and vapor return connections on an above ground storage tank during normal tank filling operation. The spill containers catch spillage to help prevent soil contamination and groundwater pollution. POMECO/OPW Remote-Fill AST Spill Containers slip on the remote-fill and vapor return piping connected to an above ground tank. Compatible with methanol, ethanol, jet and AV-Gas fuels.



Replacement Parts

| Part # | Description |
|-----------------|------------------------------------|
| 201758 | 4 x 2 Reducer Insert |
| 201759 | 4 x 3 Reducer Insert |
| PBOOT | Nitrile (Fuel-Resistant) Boot |
| H14228M | Band Clamp for PBOOT |
| 202312 | Aluminum Flange |
| 21BV-0075 | Fullport ¾" |
| 6211R-15-LegKit | Galvanized Steel Leg Kit - 15 Gal. |
| 6211R-20-LegKit | Galvanized Steel Leg Kit - 20 Gal. |
| 6211R-30-LegKit | Galvanized Steel Leg Kit - 30 Gal. |
| PC04427 | Brass Drain Valve |

211R Instruction Sheet Order Number:
H15857PA

OPW 61fSTOP "THE STOPPER" Overfill Prevention Valves

The OPW 61fSTOP Overfill Prevention Valve ("The Stopper") is designed to prevent overfilling of above ground storage tanks by providing a positive shut-off during a pressurized-fill (pump-on fill) delivery. "The Stopper" threads into the fill opening and is an integral part of the fill tube. The OPW61fSTOP is fully adjustable to allow for easy installation in new or existing above ground tanks of various heights and storage capacities.

The Stopper is a single-action, complete shut-off valve. When the liquid level rises to your specific, pre-determined tank capacity, the valve mechanism is released and automatically closes with the flow of the product. Any excess product left between the valve and the fuel delivery coupler is drained into the tank through internal drain vents. The drain vents on the 61fSTOP act as an anti-siphon, by introducing air/vapor into the fill line, to help isolate the tank from a potential siphon due to a broken or leaking fill pipe.

The 61fSTOP, available in either 2" or 3" full-flow models, maximizes flow rates and minimizes delivery times. The 2" 61fSTOP requires a 4" tank opening and minimum tank ullage (space from the top of the stored product to the inside top of the tank) of 8" on the 61fSTOP-1000 Cylindrical Float model and a minimum ullage of 4" on the 61fSTOP-2000 Float Arm model. The 61fSTOP-1000, with the cylindrical float, eliminates the need to position the valve to avoid tank walls or cross-bracing. The 61fSTOP-2000 with the float arm allows for increased usable storage capacity in the tank, and is well-suited for small capacity rectangular ASTs. The 3" 61fSTOP requires a 6" tank opening and incorporates a cylindrical float requiring 8" of tank ullage space.

Materials

Valve Body, Adaptor and Collar: Cast aluminum
Poppet: Cast aluminum, hard-coated
Cam: Stainless steel
Follower: Brass
Shaft: CRS zinc-plated
Bearing: Sintered bronze
Float: Closed-cell nitrile
Nipple: 2" - 3" schedule 40 steel pipe
Lower Nipple: 2" - 3" schedule 40 steel pipe with Duragard® coating

Features

- ◆ **A Special Crossbar Tank-Inlet Adaptor** – is provided with each Stopper to provide for tight-fills and help prohibit open-fills. Mounting hardware, upper drop tube and 14" lower drop tube provided (longer-length drop tubes can be purchased or added)
- ◆ **Completely Automatic Operation** – no pre-checks to perform, no resets, and no overrides to be broken or abused
- ◆ **Direct or Remote-Fill Compatible** – fuel delivery couplers can be connected directly to the 61fSTOP, or steel pipe can be threaded into the top of the valve and piped to a remote location where the couplers are contained in a 211-RMOT Spill Container
- ◆ **Integral Anti-Siphon Valve** – drain vents on the 61fSTOP act as an anti-siphon, by introducing air/vapor into the fill line after the valve actuates, to help isolate the tank from a potential siphon due to a broken or leaking remote-fill pipe
- ◆ **150 psi (10 bar) Pressure Rated*** with Low Pressure Drop – to enable quick, safe delivery of fuel into the tank
- ◆ **25 GPM (95 lpm) Minimum Flow Rate Required**
- ◆ **UL and ULC Listed** – to satisfy Third Party accreditation requirements of many jurisdictions
- ◆ **CARB Approved**

*OPW does not recommend pumping pressures above 100 psi for Class 1B fuels and we make no warranties for products use in conjunction with the 61fSTOP.

NOTE: OPW recommends the use of the 61fSTOP with clean product only. Debris and other products such as contaminated waste oil may cause improper operation of the valve.

NOTE: The 61fStop can be used in gravity drop provided the minimum flow rate is maintained.

A tight shut-off is not achieved in the closed position. However with a minimum tank size of 1,000 gallons, the leak rate will provide a 30-minute warning before the tank is full.



**Approvals
and Listings**



**CARB Certified
AST Phase I Enhanced Vapor Recovery (EVR) System**

Ordering Specifications and Dimensions

| Product # | Description | A | | B | | C | | D | | E | | F | |
|---------------|---|-----|-----|--------------------------------|------|-----|-----|------|------|---------------------------------|----|-----|------|
| | | in. | cm | in. | cm | in. | cm | in. | cm | in. | cm | in. | cm |
| 61fSTOP-1000 | 2" Cyl. Float | 3 | 7.6 | 10 | 25.4 | 2 | 5.1 | 9 | 22.4 | 3 ¹⁵ / ₁₆ | 10 | n/a | n/a |
| 61fSTOP-100M* | 2" Cyl. Float for Methanol | 3 | 7.6 | 10 | 25.4 | 2 | 5.1 | 9 | 22.4 | 3 ¹⁵ / ₁₆ | 10 | n/a | n/a |
| 61fSTOP-2000 | 2" Float Arm | 3 | 7.6 | 10 | 25.4 | 1/2 | 3.8 | 5-18 | 22.4 | 1 ³¹ / ₃₂ | 5 | 6 | 15.2 |
| 61fSTOP-200M* | 2" Float Arm for Methanol | 3 | 7.6 | 10 | 25.4 | 1/2 | 3.8 | 5-18 | 22.4 | 1 ³¹ / ₃₂ | 5 | 6 | 15.2 |
| 61fSTOP-3050 | 3" Cyl. Float | 3 | 7.6 | 10 ⁵ / ₈ | 27 | 2 | 5.1 | 8 | 20.3 | 5 ¹ / ₈ | 13 | n/a | n/a |
| 61fSTOP-305A* | 3" Cyl. Float for Aviation, Methanol and AV-GAS | 3 | 7.6 | 10 ⁵ / ₈ | 27 | 2 | 5.1 | 8 | 20.3 | 5 ¹ / ₈ | 13 | n/a | n/a |
| 61fSTOP-100M* | 2" Cyl. Float for E85 | 3 | 7.6 | 10 | 25.4 | 2 | 5.1 | 9 | 22.4 | 3 ¹⁵ / ₁₆ | 10 | n/a | n/a |
| 61fSTOP-200M* | 2" Cyl. Float for E85 | 3 | 7.6 | 10 | 25.4 | 1/2 | 3.8 | 5-18 | 22.4 | 1 ³¹ / ₃₂ | 5 | 6 | 15.2 |

*Recommended for E85

Replacement Parts 2"

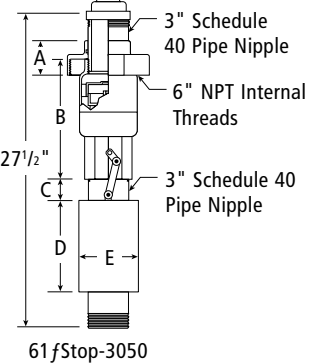
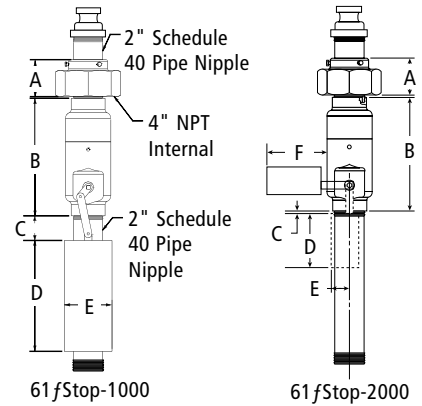
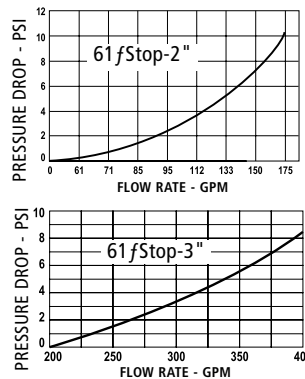
| Product # | Description |
|-----------|---------------------|
| C04093M | 4" Retaining Collar |
| C04114RS | 14" Nipple |

Replacement Parts 3"

| Product # | Description |
|-----------|---------------------|
| D02037M | 6" Retaining Collar |
| C04474RS | 14" Nipple |

61fSTOP Weights

| Product # | Weight | |
|--------------|--------|------|
| | lbs. | kg |
| 61fSTOP-1000 | 13 | 5.89 |
| 61fSTOP-2000 | 12 | 5.44 |
| 61fSTOP-3050 | 22 | 9.97 |



CARB Approved AST Equipment

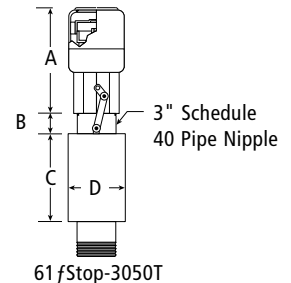
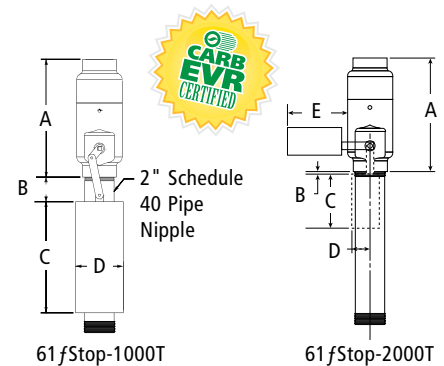
| Product # | Description | A | | B | | C | | D | | E | |
|---------------|-------------------------------|--------------------------------|------|-----|-----|------|------|---------------------------------|----|-----|------|
| | | in. | cm | in. | cm | in. | cm | in. | cm | in. | cm |
| 61FSTOP-1000T | 2" NPT with cylindrical float | 10 | 25.4 | 2 | 5.1 | 9 | 22.4 | 3 ¹⁵ / ₁₆ | 10 | n/a | n/a |
| 61FSTOP-2000T | 2" NPT with float arm | 10 | 25.4 | 1/2 | 3.8 | 5-18 | 22.4 | 1 ³¹ / ₃₂ | 5 | 6 | 15.2 |
| 61FSTOP-3050T | 3" NPT with cylindrical float | 10 ⁵ / ₈ | 27 | 2 | 5.1 | 8 | 20.3 | 5 ¹ / ₈ | 13 | n/a | n/a |

Replacement Parts 2"

| Product # | Description |
|------------|------------------------------------|
| H12617M | Float for 1000 (4 pieces required) |
| 61ARM-2000 | Floating Arm Retrofit Kit For 2000 |

Replacement Parts 3"

| Product # | Description |
|-----------|------------------------------------|
| C04438M | Float (4 pieces required for 3050) |



OPW 61FT Drop Tube

The OPW 61FT Drop Tube is designed to install on the bottom of the 61fSTOP AST Overfill Prevention Valves when a lightweight, longer, lower drop tube is required. Constructed of extruded aluminum, the OPW 61FT is connected to the bottom of the 61fSTOP by a clevis and cotter pin assembly, and allows for submerged filling of ASTs.

Ordering Specifications and Dimensions

CARB APPROVED AST EQUIPMENT

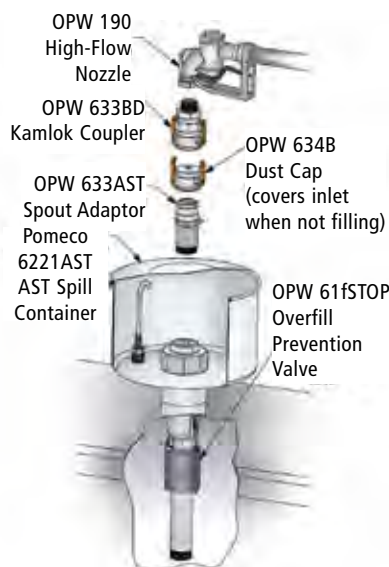
| Product # | Description |
|-----------|----------------------------------|
| 61FT-0206 | 2" x 6' Drop Tube Kit |
| 61FT-0312 | 3" x 12' Drop Tube Kit |
| 205-0340 | 2-13/16" x 1" Fill Pipe Strainer |

61FSTOP-1000, 100M, 200M Instruction Sheet Order Number: **H12676M**
 61FSTOP-2000 Instruction Sheet Order Number: **H13337M**
 61FSTOP-3000, 3050, 305A Instruction Sheet Order Number: **H13315M**
 61FT-0312, 0206 Instruction Sheet Order Number: **H14428PA**
 61FSTOP-1000T, 2000T, 3050T Instruction Sheet Order Number: **203163**

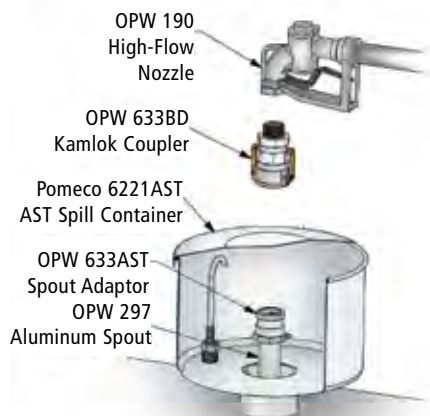
NOTE: When ordering a CARB EVR Certified OPW 61f STOP, the Fill Adaptor must be ordered separately.

Fuel Delivery Couplers And Accessories

Fuel Delivery Couplers and Accessories are designed to connect fuel delivery transport truck hoses or nozzles to the fill pipe of an aboveground storage tank.



Typical AST Filling Application



Typical AST Filling Application



Dedicated Gauging Port

For use with 633AST-XXXX Female NPT Kamlok Gauging Port.

Ordering Specifications

CARB APPROVED AST EQUIPMENT

| Product # | Description |
|-----------|------------------------|
| 204247 | Dedicated Gauging Port |

Kamlok® Couplers

The 633BD has a Kamlok® Coupler on one end and external threads on the other end. This coupler should be threaded into an OPW 190 Nozzle and then coupled to the 61fSTOP for filling ASTs.

Ordering Specifications

Elbow/Thread

| Product # | in. | mm |
|------------|-----------|---------|
| 633BD-1261 | 2 x 1-1/2 | 51 x 38 |
| 633B-0150 | 2 x 2 | 51 x 51 |



633B Coupler

Tank Inlet Spout Adaptors With Crossbar

The 633AST Series Adaptors, with a boss installed across the inlet, are designed to prohibit open-fills. Adaptors are supplied with the 61fSTOP to provide for tight-fills.

Ordering Specifications

Elbow/Thread

| Product # | in. | mm |
|-------------|-------|---------|
| 633AST-2061 | 2 x 2 | 51 x 51 |
| 633AST-3061 | 3 x 3 | 77 x 77 |



633AST Spout Adaptor

Tank Inlet Spout Adaptors

The 633AST is an adaptor that can be threaded onto a 297 Spout. The spout and adaptor assembly may then be attached to a 190 Nozzle equipped with a 633BD Kamlok® coupler for open filling of ASTs when a 61fSTOP is not installed.

Ordering Specifications

CARB APPROVED AST EQUIPMENT

Elbow/Thread

| Product # | in. | mm |
|-------------|-----------|-----------|
| 633AST-0200 | 2 x 2 | 51 x 51 |
| 633AST-0250 | 2.5 x 2.5 | 64 x 64 |
| 633AST-0300 | 3 x 3 | 76 x 76 |
| 633AST-0400 | 4 x 4 | 102 x 102 |

633FAST-XXXX, Male Thread Equivalent of Adaptors above



633AST Spout Adaptor

Dust Caps

The 634B Dust Caps are installed on 633AST Adaptors when not in use to deter dust, debris and water from entering the tank.

Ordering Specifications

CARB APPROVED AST EQUIPMENT

| Product # | Description | in. | mm |
|-----------|--|-------|-----|
| 634B-0140 | For 633AST-0150 | 1 1/2 | 38 |
| 634B-0150 | Caps 633AST-2061 or 633AST-0200 Adaptor | 2 | 51 |
| 634B-0160 | Caps 1611AN-0200 or 633AST-0250 or 1611AN-2040 or 1612AN-2040 Adaptors | 2 1/2 | 64 |
| 634B-0170 | Caps 61fSTOP (633AST-3061) or 366AST-0300 or 1611AN-3060 or 1612AN-3060 Adaptors | 3 | 77 |
| 634B-0180 | 1611AN-0300 Kamvalok® Adaptor or 633AST-0400 Adaptor | 4 | 103 |



Dust Cap

1611 & 1612 Series Kamvalok® Adaptors

Installed onto the 61fSTOP overfill prevention valve. Contains an internal spring loaded valve assembly that automatically closes to help prevent fuel spillage.

Ordering Specifications

CARB APPROVED AST EQUIPMENT

| Product # | Seal | in. | mm |
|-------------|-----------------------------|-----|----|
| 1611AN-2040 | Direct Fill with Buna seal | 2 | 51 |
| 1612AN-2040 | Direct Fill with Viton seal | 2 | 51 |
| 1611AN-3060 | Direct Fill with Buna seal | 3 | 77 |
| 1612AN-3060 | Direct Fill with Viton seal | 3 | 77 |

1611AN Adaptor Instruction Sheet Order Number: 204016



Kamvalok® Adaptor
for Direct Fill

Poppeted Kamvalok® Adaptors

The 1611AN Series Kamvalok® Adaptor is installed at the fill pipe and replaces the 633AST. The 1611AN contains an internal spring-loaded valve assembly that automatically closes to help prevent fuel spillage. The 1611AN mates with the 1711D Coupler to open the spring-loaded valve and proceed with a delivery 204016.

Ordering Specifications

CARB APPROVED AST EQUIPMENT

| Product # | Seal | in. | mm |
|-------------|--------------------------------------|-----|----|
| 1611AN-0200 | Remote Fill with Buna Seal | 2 | 51 |
| 1611AN-0300 | Remote Fill with Buna Seal | 3 | 77 |
| 1612AN-0150 | Remote Fill with Viton® Seal | 1½ | 38 |
| 1612AN-0200 | Remote Fill with Viton® Seal | 2 | 51 |
| 1612AN-0300 | Remote Fill with Viton® Seal | 3 | 77 |
| 1672AN-SS20 | 2" Stainless Steel Kamvalok® Adaptor | 2 | 51 |
| 1672AN-SS30 | 3" Stainless Steel Kamvalok® Adaptor | 3 | 77 |

* Thread and Kamvalok® same size



Poppeted Kamvalok®
Couplers for Remote Fill

1611AN Adaptor Instruction Sheet
Order Number: 204016

Poppeted Kamvalok® Couplers

The 1711D Series Kamvalok® Couplers are installed on the fuel delivery transport truck hose and mate with the 1611AN Adaptors. The combination of the 1711D and 1611AN enable dry connection and dry disconnection of delivery fittings to help prevent accidental spillage of product.

Ordering Specifications

CARB APPROVED AST EQUIPMENT

| Product # | Seal | in. | mm |
|-------------|---|-----|----|
| 1711D-1075 | Buna | 2 | 51 |
| 1711D-1080 | Buna | 3 | 77 |
| 1712D-1085 | Viton® | 1½ | 38 |
| 1712D-1090 | Viton® | 2 | 51 |
| 1712D-1095 | Viton® | 3 | 77 |
| 1772DL-SS20 | 2" Stainless Steel Poppeted Kamvalok® Coupler w/ Locking Arms and Lever | 2 | 51 |
| 1772DL-SS30 | 3" Stainless Steel Poppeted Kamvalok® Coupler w/ Locking Arms and Lever | 3 | 77 |

* Thread and Kamvalok® same size



Poppeted
Kamvalok® Couplers

H32116PA Coupler Instruction
Sheet Order Number: 204016

Dust Plugs

The 634A Dust Plug is installed in the end of the 1711D, and is designed to help prevent dust, dirt and debris from damaging the internal components of the Coupler.

Ordering Specifications

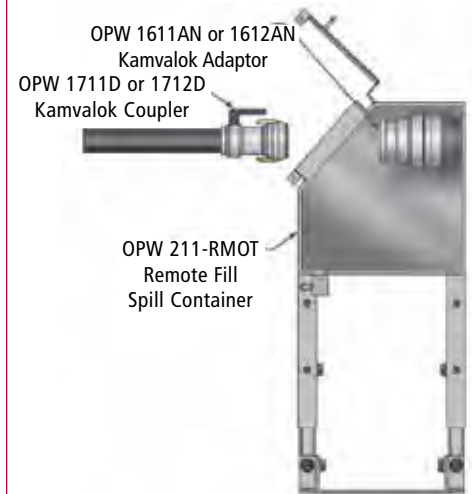
| Product # | Description | in. | mm |
|-----------|---|-----|-----|
| 634A-0160 | Plugs 1711D or 1712D - 2" Kamvalok® Coupler | 2½ | 64 |
| 634A-0180 | Plugs 1711D or 1712D - 3" Kamvalok® Coupler | 4 | 103 |



Dust Plug

Spout Kits And Delivery Couplers And Accessories

Fuel Delivery Couplers and Accessories are designed to connect fuel delivery transport truck hoses or nozzles to the fill pipe of an aboveground storage tank.



Typical AST Filling Application



Lockable Dust Plug

Lockable Dust Caps

The 634BK-0090 is a 2" lockable dust cap for the 61fSTOP. It will cap off any 2" 633AST Tank Inlet Spout Adaptor and offers the added feature of being lockable.

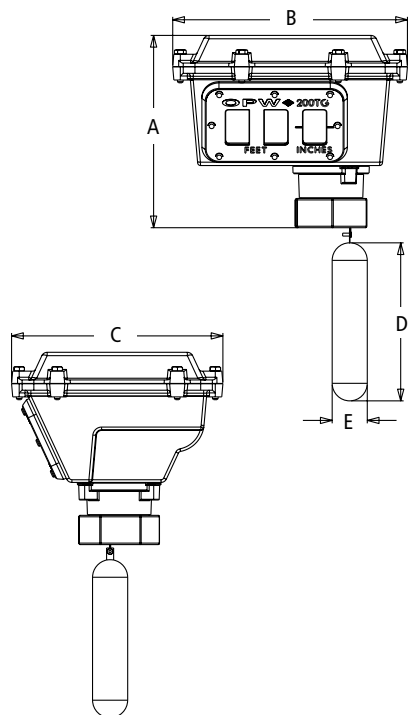
Ordering Specifications

CARB APPROVED AST EQUIPMENT

| Product # | Description | in. | mm |
|------------|---------------------|-----|-----|
| 634BK-0090 | Caps 633AST Adaptor | 2 | 51 |
| 634BK-0100 | Caps 633AST Adaptor | 3 | 77 |
| 634BK-0200 | Caps 633AST Adaptor | 4 | 103 |

OPW 200TG AST Mechanical Tank Gauge

The OPW 200TG Tank Gauge is designed for reading liquid levels in horizontal or vertical above ground storage tanks. The 200TG Tank Gauge provides an accurate numerical counter readout, eliminating the need for any on-site manual gauging.



Dimensions:

| | in. | cm |
|---|--------|-------|
| A | 8 1/4 | 21 |
| B | 10 1/4 | 26 |
| C | 9 | 22.75 |
| D | 6 3/4 | 17.25 |
| E | 1 1/2 | 3.75 |

Replacement Parts:

| Part # | Description |
|---------|-------------|
| C05165M | Float |
| H15325M | Lens |
| H15267M | Lens Gasket |
| H14909M | Lid Gasket |



Underwriters Laboratory Listed UL Listing MH29367. Liquid level gauges which are intended to be used on above ground storage tanks and monitor the level of petroleum-based flammable or combustible fluids.

Materials

Enclosure: Powder-coated aluminum

Swivel Base: Hard-coat aluminum

Float: 304 stainless steel

Lenses: Tempered borosilicate

Gears: Acetal

Gaskets & O-Rings: Nitrile*

All Hardware: Stainless steel

Accuracy: + or - 2"



Features

- ◆ **Vapor-Tight** – allows for standard tank pressure testing and sealing up to 25-psig (1.72 bar)
- ◆ **Angled Face** – improves visibility from ground on large diameter tanks. May be read easily up to 30 feet away (9.14 m)
- ◆ **Swivel Adaptor Base** – allows for 360° of rotation of gauge face for easy viewing wherever needed
- ◆ **Easy Installation** – 2" NPT-threaded base reduces labor time, and comes standard with female thread. A H11421RS may be purchased for male threaded applications
- ◆ **Corrosion-Resistant Construction** – powder-coated die cast-aluminum body assures for long service life in many fluids
- ◆ **Drop Tube** – prevents float entanglement in the tank, and gives the gauge a more accurate reading when turbulence is present (Drop Tubes sold separately. They are recommended for use in tanks with high turbulence, and where other piping and structures inside the tank may cause entanglement)
- ◆ **Float Buoyancy** – designed to float in all approved fuels with a specific gravity of 0.65 and greater
- ◆ **Tank Height** – unit designed for use on any horizontal or vertical aboveground tank up to 18 feet (5.5 m) in depth. Specials available upon request
- ◆ **Numbering** – black letters on white background for ultimate contrast and better visibility. Characters stand over 1" (25 mm) tall
- ◆ **Unit Measurement** – Can be purchased in metric units to read in meters, 1/10, 1/100, or in English units to read in feet and inches
- ◆ **Maintenance** – No annual maintenance required
- ◆ **Compatible Fuels** – see chart on page 228
- ◆ **Temperature Rating** – 120°F to -40°F (49°C to -40°C)

200TG Tank Gauge Instruction Sheet
Order Number: **H14912PA**

Ordering Specifications:

| Product # | Description | lb. | kg |
|-------------|--------------------------------------|------|------|
| 200TG-ENG | English Unit Tank Gauge up to 18 ft. | 7.75 | 3.52 |
| 200TG-ENG40 | English Unit Tank Gauge - 40 ft. | 7.75 | 3.52 |
| 200TG-MET | Metric Unit Tank Gauge up to 6 m | 7.75 | 3.52 |
| 200TGMET40 | Metric Unit Tank Gauge - 10 m | 7.75 | 3.52 |

(Ancillary Equipment)

| Product # | Description | lb. | kg |
|-----------|---------------------------|-----|------|
| H11421RS | 2" NPT Male x Male Nipple | 1.5 | 0.68 |

CARB CERTIFIED AST EQUIPMENT

| | | | |
|----------|------------------------------|------|------|
| 61T-0208 | 2" Dia. x 8' Long Drop Tube | 2.67 | 1.21 |
| 61T-0212 | 2" Dia. x 12' Long Drop Tube | 4.00 | 1.81 |
| 61T-0216 | 2" Dia. x 16' Long Drop Tube | 5.33 | 2.42 |

Materials

Enclosure: Polybutylene terephthalate

Wire Grommet: Nylon w/ buna seal

Float Switch: Closed cell buna float
& stainless steel rod

Pipe: Stainless steel

Tank Adaptor: Aluminum hardcoat anodized

444TA



Features

- ◆ **Up to four alarm signals (444TA)** – can be used for high or low liquid level sensing, interstitial monitoring, and/or other signals in one to 4 separate tanks
- ◆ **Self-Powered** – lithium battery with a 10-year shelf life for long service life.
- ◆ **Audible Alarm** – sounds a 90-decibel alarm at 4 feet away
- ◆ **Visual Notifications** – red alarm light will flash during use for notification to the user. Low battery light indicates when battery needs replaced
- ◆ **Corrosion-Resistant Construction** – petroleum and environmental resistant housing and all stainless steel pipe fitting ensure a long product life
- ◆ **Product / Alarm Identification Label** – located on top of the alarm for quick and easy identification, allowing you to correspond alarms to signals. Label has a protective covering
- ◆ **Intrinsically Safe** – complies with ANSI/UL 913 for Class 1, Division 1 & 2 for Groups C & D hazardous locations
- ◆ **Cold Weather Resistant** – all components are safe for temperatures down to -40°F operation (and up to 120° F)
- ◆ **Long Life Lithium Battery** – self-powered by a lithium battery which includes a 10-year shelf life to ensure peace of mind for the owner
- ◆ **Easy Installation** – requires no calibration and installs easily into a 1" tank bung. May be assembled remotely or directly on top of tank



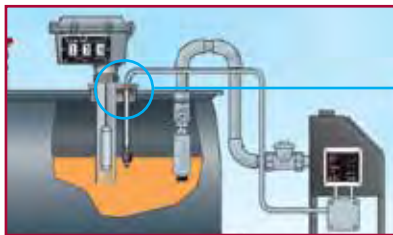
TGTA-0400 4" Tank Bung
Combo Fitting
Note: Drop Tube must be
used with TGTA-0400.

444TA and 144TA Instruction Sheet
Order Number: 200655

Ordering Specifications:

| Product # | Description | lb. | kg |
|-------------|--|-----|-----|
| 444TA-0100* | Four Signal Tank Alarm, does not include Float Switch | 4 | 1.8 |
| 44TA-LLFS** | 36" Liquid-Level Float Switch Sub-Assembly | 0 | 0.0 |
| 144TA-0100 | Single Channel Liquid Level Tank Alarm, does not include Float Switch | 4 | 1.8 |
| TGTA-0400 | 4" Tank Bung Gauge and Alarm Combo Fitting (OPW 61T required for use) | 10 | 4.5 |

**The OPW 144TA Requires the OPW 44TA-LLFS, the OPW 44TA-LLFS must be purchased as a separate item.



Replacement Parts:

| Part # | Description |
|--|--------------------------------|
| 44TA-LLFS | Liquid-Level Float Switch ASSY |
| H15412M | Wire Fitting |
| H15411M | Float Switch |
| Items to Convert to a Low Level Alarm: | |
| C05295M | SST Tube |
| H15937M | 444TA-0100 Battery Module |
| 202891 | 144TA Battery Module |

OPW 444TA AST Four Signal Tank Alarm and OPW 144TA AST Liquid Level Tank Alarm

The OPW AST remote Four Signal Tank Alarm is designed to sense up to four different liquid levels or other signals using just one device.

The OPW 144TA Tank Alarm is designed for liquid level sensing.

Alarm Technical Information:

Hazardous Location Approval: Class I, Groups C & D

Maximum Voltage: 7.2 Volts

Maximum Current: 8 ma. per input (32 ma. total)

Maximum Internal Capacitance: 23 uF

Maximum Internal Inductance: 33 mH

Maximum Ambient Temperature Rating: 60° C

Maximum Surface Temperature Classification:

T4 Surface Code

Wiring limitations: 1000 foot maximum between the 144TA/444TA unit and any remote switch for each channel of the alarm. This assumes that maximum capacitance for any input is 60 nanoFarads and that the maximum inductance is 0.2 milliHenry per input (UL-913 A7.3)

Note: This device is designed to work independently and should not be wired in parallel with another device, except as defined in the following instructions.

Requirements for devices wired to the 144TA/444TA:

- Attached wiring and devices must be classed Intrinsically Safe
- No voltage or current source
- Maximum capacitance: 60 nanoFarads (.06 uF) per input
- Maximum inductance: 200 microHenrys (.2 mH) per input

Float Switch Technical Information:

Minimum liquid specific gravity: 0.45.

Stem material: Stainless steel. Float Material: Closed Cell Buna-N (UL Approved) for gasoline services

Max Pressure: 150 psi @ 70° F. Thread 1/8" NPT.

444TA Dimensions:

| | in. | cm |
|---|--------|------|
| A | 5 1/32 | 12.8 |
| B | 5 1/32 | 12.8 |
| C | 4 3/16 | 10.6 |

144TA Dimensions:

| | in. | cm |
|---|---------|------|
| A | 5 1/32 | 12.8 |
| B | 5 1/32 | 12.8 |
| C | 3 | 7.6 |
| D | 4 3/16 | 10.6 |
| E | 1 15/16 | 4.9 |
| F | 35 | 88.9 |
| G | 1 15/16 | 4.9 |
| H | 1 | 2.5 |

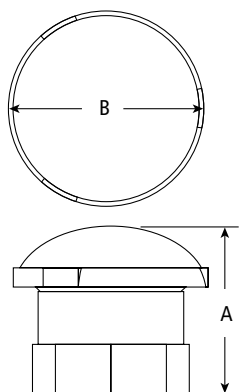
Approvals and Listings



Conforms to ANSI / UL STD 913
Certified to CAN / CSA STD C22.2 No. 157-92
Florida EQ-610
CARB Certified

OPW 301 Emergency Vents

The OPW 301 Emergency Vent is designed to prevent an above ground storage tank from becoming over-pressurized by providing high-capacity venting in the event of a fire or blockage. The 301 is a weighted, mushroom-style emergency vent. When the AST builds pressure, the weighted cast iron lid is forced up off its seat to relieve the pressure. When pressure is relieved, the lid lowers and is automatically reset. The appropriate 301 Series vent is determined by the emergency venting capacity requirements of the AST and the type of connection at the tank's emergency vent opening. The OPW 301 Emergency Vent is available in 4", 6", 8" and 10" openings with female NPT, male NPT or flanged connections (8"-10") to allow for easy installation in new or existing above ground tanks. Various lid pressure settings determine the initial venting of the valve.



Replacement Parts

| Part # | Description |
|--------|-------------|
| 201877 | 4" Seal |
| 202721 | 6" Seal |
| 203325 | 8" Seal |

Materials

Lid: Cast iron with powder-coated finish
Body: Aluminum
Shaft: Zinc-plated steel
O-Ring: Buna-N

301 SCFH @ 2½ PSI
 (0.17 bar)
 4" - 101,000
 6" - 250,000
 8" - 471,000



Features

- ◆ **Automatically Resets** – weighted cast iron cover reseats once the pressure in the tank is relieved
- ◆ **Aluminum Body and Cast Iron Lid**
- ◆ **Epoxy Powder-Coated Cover** – prevents rusting of the cover to protect expensive finishes on ASTs
- ◆ **UL Listed** – to satisfy third party accreditation requirements of many jurisdictions
- ◆ **CARB Certified** – AST Phase 1 Enhanced Vapor Recovery (EVR) System

301 Series Instruction Sheet Order Number: 203568

Ordering Specifications

CARB APPROVED AST EQUIPMENT

| Model # | in. | mm | Pressure Setting | Mounting Connection | A | | B | | Weight | |
|-----------|-----|-------|------------------|---------------------|-----|-------|------|-------|--------|------|
| | | | | | in. | mm | in. | mm | lbs. | kg |
| 301-3080 | 3 | 76 | 8 oz. | Female NPT | 4.7 | 119.4 | 5.1 | 129.5 | 6.7 | 3 |
| 301M-3081 | 3 | 76 | 8 oz. | Male NPT | 4.7 | 119.4 | 5.1 | 129.5 | 6.7 | 3 |
| 301-3160 | 3 | 76 | 16 oz. | Female NPT | 5.7 | 144.8 | 5.1 | 129.5 | 11.4 | 5.2 |
| 301M-3161 | 3 | 76 | 16 oz. | Male NPT | 5.7 | 144.8 | 5.1 | 129.5 | 11.4 | 5.2 |
| 301-4080 | 4 | 101.5 | 8 oz. | Female NPT | 4.9 | 124.5 | 6.1 | 154.9 | 10.6 | 4.8 |
| 301M-4081 | 4 | 101.5 | 8 oz. | Male NPT | 4.9 | 124.5 | 6.1 | 154.9 | 10.6 | 4.8 |
| 301-4160 | 4 | 101.5 | 16 oz. | Female NPT | 6.1 | 154.9 | 6 | 152.4 | 18.1 | 8.2 |
| 301M-4161 | 4 | 101.5 | 16 oz. | Male NPT | 6.1 | 154.9 | 6 | 152.4 | 18.1 | 8.2 |
| 301-6080 | 6 | 152 | 8 oz. | Female NPT | 5.9 | 149.9 | 8.1 | 205.7 | 20.9 | 9.5 |
| 301M-6081 | 6 | 152 | 8 oz. | Male NPT | 5.9 | 149.9 | 8.1 | 205.7 | 20.9 | 9.5 |
| 301-6160 | 6 | 152 | 16 oz. | Female NPT | 7.4 | 188 | 8.1 | 205.7 | 37.5 | 17 |
| 301M-6161 | 6 | 152 | 16 oz. | Male NPT | 7.4 | 188 | 8.1 | 205.7 | 37.5 | 17 |
| 301-8080 | 8 | 203 | 8 oz. | Female NPT | 6.2 | 157.5 | 10.1 | 256.5 | 33.9 | 15.4 |
| 301M-8081 | 8 | 203 | 8 oz. | Male NPT | 6.2 | 157.5 | 10.1 | 256.5 | 33.9 | 15.4 |
| 301-8160 | 8 | 203 | 16 oz. | Female NPT | 7.8 | 198.1 | 10.1 | 256.5 | 61.9 | 28 |
| 301M-8161 | 8 | 203 | 16 oz. | Male NPT | 7.8 | 198.1 | 10.1 | 256.5 | 61.9 | 28 |
| 301F-8085 | 8 | 203 | 8 oz. | Flange | 6.2 | 157.5 | 10.1 | 256.5 | 41.8 | 19 |
| 301F-8165 | 8 | 203 | 16 oz. | Flange | 7.8 | 198.1 | 10.1 | 256.5 | 70 | 31.8 |
| 301F-1085 | 10 | 254 | 8 oz. | Flange | 6.5 | 165.1 | 13 | 330.2 | 65.2 | 29.6 |

Approvals and Listings

CARB Certified
AST Phase 1 Enhanced Vapor Recovery (EVR) System

Materials

Cover and body: Aluminum

Link: Duratuff®

Spring: Stainless steel

Sealing surface:

Teflon®-coated aluminum

202 SCFH @ 2½ PSI
(0.17 bar)

4" 125,000 SCFH @ 2.5 psi

6" 280,000 SCFH @ 2.5 psi

8" 455,000 SCFH @ 2.5 psi



Features

- ◆ **Lightweight Construction** – allows for safe, easy installation on large aboveground tanks
- ◆ **Spring-Loaded, O-Ring Sealed Cover with Teflon-Coated Seat** – Ensures smooth, vapor-tight sealing surface and reliable service life
- ◆ **Full-Bore, High-Capacity Upward Venting** – enables smaller diameter vents, with higher venting capacity, to be used on ASTs when compared to weighted, mushroom-style vents
- ◆ **Aluminum Cover and Body with Stainless Steel Components** – corrosion-resistant construction to protect expensive finish or epoxy coatings on ASTs
- ◆ **Mounts Vertical or Horizontal**
- ◆ **Alerts Tank Operators of Possible Venting Problems** – when the emergency vent is actuated, the lid remains open for inspection until manually reset. The actuation of the emergency vent indicates abnormal excessive pressure build-up in the tank due to either a blockage in the normal tank vent or in the event of a rapid expansion of vapors possibly from a fire
- ◆ **Easy Vent Reset** – no extra parts required. Simply push the vent lid closed until an audible “click” is heard, indicating the vent is back in operation
- ◆ **UL Listed** – to satisfy Third Party accreditation requirements of many jurisdictions

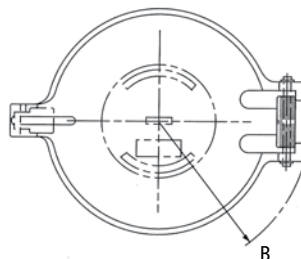
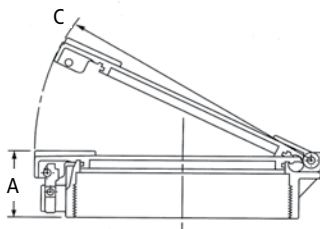
202 Series Instruction Sheet Order Number: **H11792M**

Ordering Specifications

| Model # | in. | mm | lbs. | kg |
|----------|-----|-----|------|-----|
| 202-0640 | 4 | 102 | 2.05 | .95 |
| 202-0660 | 6 | 152 | 3.55 | 1.6 |
| 202-0680 | 8 | 203 | 5.1 | 2.3 |

Dimensions 202

| | 4" (102mm) | | 6" (152mm) | | 8" (203mm) | |
|---|------------|-----|------------|-----|------------|-----|
| | in. | mm | in. | mm | in. | mm |
| A | 2⅜ | 60 | 2⅜ | 60 | 2⅝ | 67 |
| B | 4 | 102 | 5 | 127 | 5⅞ | 149 |
| C | 6½ | 165 | 8⅞ | 218 | 10¾ | 273 |

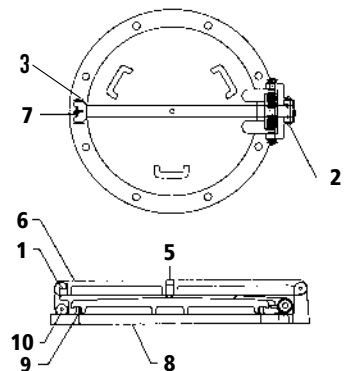


OPW 202 Emergency Vents

The OPW 202 Emergency Vent is designed to prevent an aboveground storage tank from becoming over-pressurized by providing full-bore, high-capacity venting in the event of a fire or blockage of the OPW 23, 113, 523V, or 623V. The 202 is a vapor-tight, spring-loaded emergency vent. When the AST builds pressure to 2.5 psi, the spring-loaded lid opens full-bore and discharges vapors upward to relieve the pressure. The lid remains open for inspection to indicate a problem with the normal tank venting, or if a fire has taken place, until manually reset. The appropriate 202 Series vent is determined by the emergency venting capacity requirements of the AST and the type of connection at the tank's emergency vent opening. The OPW 202 Emergency Vent is available in 4", 6", and 8" openings with female NPT connections.

Ordering Specifications Flange Mount

| Model # | in. | mm | lbs. | kg |
|-----------------------------|-----|-----|------|-----|
| 202F-0600 (Flange Mount) | 8 | 203 | 5.2 | 2.4 |



202F Replacement Parts

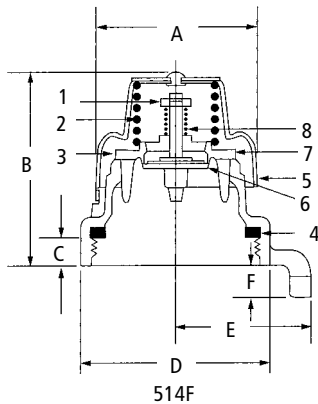
| Key | Part # | Description |
|-----|----------|-------------|
| 1 | H04869RE | Break Link |
| 2 | H06475RE | Rivet |
| 3 | H04981M | Cotter Pin |
| 4 | H04928 | Parts S/A |
| 5 | H04929M | Screw |
| 6 | C01288I | Bar |
| 7 | H04871M | Break Pin |
| 8 | C01289M | Gasket |
| 9 | H04873M | O-Ring |
| 10 | H06449RE | Rivet |

**Approvals
and Listings**



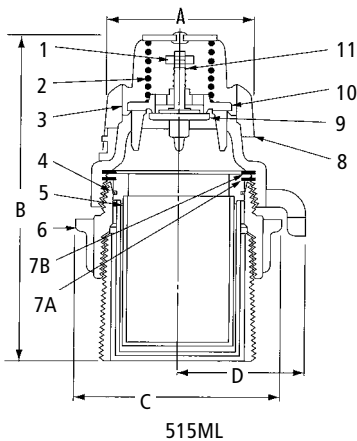
OPW Utility Tank Vents

OPW Utility Tank Vents are installed directly on the top of above ground storage tank or utility tank vent pipes. The vent cap is designed to protect the tank against intrusion of water, debris or insects. The 515ML incorporates a flame arrestor screen for jurisdictions that require these on tanks. A normally closed poppet in the valve opens at a predetermined pressure or vacuum setting to allow the tank to vent.



Dimensions (514F)

| | in. | mm |
|---|---------------------------------|----|
| A | 2 ⁵ / ₁₆ | 59 |
| B | 2 ⁵ / ₁₆ | 75 |
| C | 1 ⁵ / ₁₆ | 24 |
| D | 2 ²¹ / ₃₂ | 67 |
| E | 1 ¹⁵ / ₁₆ | 49 |
| F | 7/ ₁₆ | 11 |



Dimensions (515ML)

| | in. | mm |
|---|---------------------------------|-----|
| A | 2 ⁵ / ₁₆ | 59 |
| B | 5 ¹ / ₄ | 133 |
| C | 3 ⁷ / ₈ | 79 |
| D | 1 ¹⁵ / ₁₆ | 49 |

Materials

Cap body: High-tensile aluminum alloy construction. Has straight pipe threads with Nitrile for tight seal to tank. 2" - 11¹/₂" NPSH threads.

Dome: Plated steel

Screen: 40-mesh brass

514F



Features

- ◆ 3-Pound Pressure and 1 oz. Vacuum Settings – factory preset and tested to protect against product vapor loss and allow for rapid withdrawal of product from the tank.
- ◆ Reliable Service – precision-machined, lapped bronze pressure and vacuum seats ensure consistent seating of the pressure/vacuum valve.
- ◆ Corrosion-Resistant Construction – zinc/aluminum alloy body and zinc-plated steel dome assure a long service life.
- ◆ Easy Installation – 514F is available in 2" (11¹/₂" NPSH) female straight threads with a Buna-N gasket.

- ◆ High Maximum Flow Rate – 3500 SCFH at 4.5 psi (0.31 bar) pressure drop.
- ◆ Lockable Base - a provision for padlocking the vent to the tank is integrated into the base.

Replacement Parts

| Key | Part # | Description |
|-----|----------|-----------------|
| 1 | H01967M | Nut |
| 2 | H10096M | Pressure Spring |
| 3 | H07355M | Screen |
| 4 | H11432M | Seal |
| 5 | C03991M | Dome |
| 6 | H07356B | Vacuum Disc |
| 7 | H08380AH | Pressure Disc |
| 8 | H07353M | Vacuum Spring |

Ordering Specifications

| Product # | in. | mm | lbs. | kg |
|-----------|-----|----|------|-----|
| 514F-3050 | 2 | 51 | .46 | .21 |

Materials

Cap Body: High-tensile aluminum alloy construction. Has straight pipe threads with Nitrile gasket for tight seal to tank.

Dome: Plated steel

Screen: 40 mesh brass

515ML



Features

- ◆ Flame Arrestor Screen – for jurisdictions that require flame arrestors on tank vents.
- ◆ 5 PSI (0.34 bar) Pressure and 1 oz. Vacuum Settings – factory preset and tested to protect against product vapor loss and allow for rapid withdrawal of product from the tank.
- ◆ Reliable Service – precision-machined, lapped bronze pressure and vacuum seats ensure consistent seating of the pressure/vacuum valve.

- ◆ Corrosion-Resistant Construction – zinc/aluminum alloy body and zinc-plated steel dome assure a long service life.
- ◆ Easy Installation – 515ML is available in 2" (11¹/₂" NPSH) male straight threads.
- ◆ High-Maximum Flow Rate – 3500 SCFH at 7.5 psi (0.52 bar) pressure drop.

Replacement Parts

| Key | Part # | Description |
|-----|----------|---------------|
| 7A | H11211M | O-Ring |
| 7B | H03636M | Cap Gasket |
| 8 | C03991M | Dome |
| 9 | H07356B | Vacuum Disc |
| 10 | H08380AH | Pressure Disc |
| 11 | H07353M | Vacuum Spring |

Ordering Specifications

| Product # | in. | mm | lbs. | kg |
|------------|-----|----|------|-----|
| 515ML-1030 | 2 | 51 | 1.80 | .82 |

Materials

Body: Zinc/aluminum

Screen: brass

Cap: 2" - Steel 4" - cast iron

Screen: 40-mesh stainless steel

113



Ordering Specifications

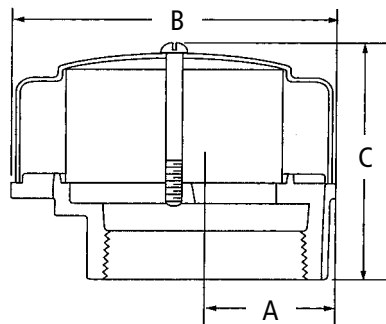
| Product # | in. | mm | lbs. | kg |
|-----------|-----|-----|------|------|
| 113-0066 | 2 | 51 | .88 | .40 |
| 113-0099 | 4 | 102 | 7.50 | 3.41 |

Dimensions

| | 2" (51mm) | | 4" (102mm) | |
|---|-----------|----|------------|-----|
| | in. | mm | in. | mm |
| A | 1 1/2 | 38 | 2 3/4 | 70 |
| B | 3 3/4 | 95 | 7 7/16 | 189 |
| C | 2 3/4 | 70 | 4 15/16 | 125 |

OPW 113 Series Open Atmospheric Utility Vents

OPW 113 Open Atmospheric Utility Vents are installed on the top of above ground fuel storage tanks. The vent cap and internal wire screen are designed to protect the tank vent lines against intrusion and blockage from water, debris or insects. These vents are always open to atmosphere and allow any pressure or vacuum into the tank to vent. The 113 vents vapors downward and is used primarily on diesel, fuel oil, waste-oil and motor-oil tanks, but can also be used on a wide variety of above ground storage tank venting applications.



OPW 723V Pressure Vacuum Vents



See page 122

OPW 623V Pressure Vacuum Vent



See page 123

OPW 523V Pressure Vacuum Vent

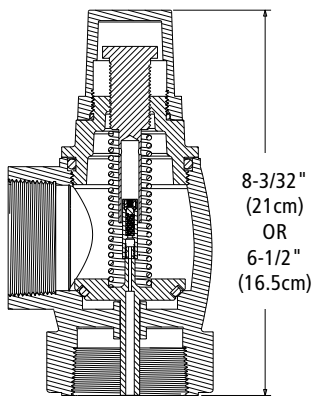


See page 124

For more information contact OPW Customer Service at
1-800-422-2525; International call 1-513-870-3315.

OPW 199ASV Anti-Siphon Valve

The OPW 199ASV Anti-Siphon Valve is designed to help prevent siphoning of an above ground storage tank should a leak or break occur in the fuel supply line. The 199ASV installs on the top of an above ground storage tank with a suction rod on the inlet and the fuel supply line (to a remote pump) on the outlet of the valve. A poppet in the valve remains normally closed, isolating the tank from siphoning. When the remote pump is activated, it overcomes a factory-adjusted spring set to a predetermined hydrostatic head pressure and allows flow of fuel out of the AST. An internal pressure relief valve helps absorb thermal expansion in the fuel supply line. The 199ASV is available in female NPT threads with four different factory-adjusted hydrostatic head pressure settings.



- ◆ 8³/₃₂" model for 1¹/₂" and 2" (20.55 cm model for 3.81 cm and 5.08 cm)
- ◆ 6¹/₂" model for 3/4" and 1" (16.51 cm model for 1.90 cm and 2.54 cm)

Materials

Body: Clear anodized aluminum
Bonnet: Powder-coated aluminum
Cap: Powder-coated aluminum
Spring: Stainless steel
Poppet: Hard-coated aluminum
Screw: Hard-coated aluminum
Poppet Seal: Nitrile



199ASV

Features

- ◆ **Factory-Adjusted Hydrostatic Head Pressure Settings** – allow for quick, safe and easy installation on above ground tanks
- ◆ **Internal Pressure Relief Valve** – helps protect piping and fittings from damage due to thermal expansion. Set to operate between 20 to 40 PSI (1.3 to 2.7 bar)
- ◆ **Aluminum Bodies** – compatible with gasoline, diesel, kerosene, ethanol, methanol, fuel oil and jet fuels
- ◆ **Temperature Rating** – -20°F - 120°F (29°C - 49°C)

Valve Rating
ft of gasoline
S.G. = 0.7

Approximate Cracking Pressure

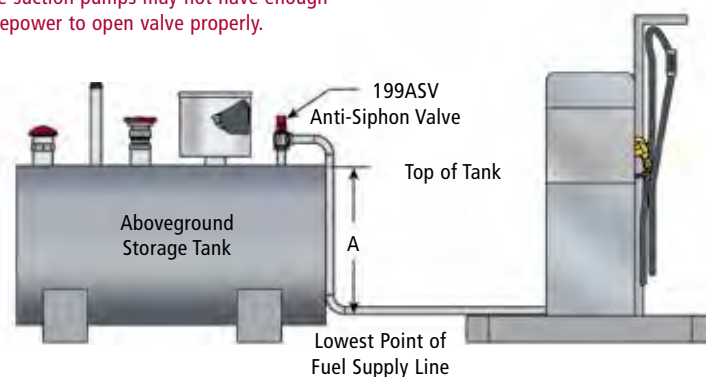
| | PSI | ft. H ₂ O | in. H ₂ O | in. Hg | ft. Gas | ft. Diesel |
|-------|------|-------------------------|-------------------------|-----------|------------|---------------|
| 0-5 | 1.88 | 4.33 | 51.96 | 3.85 | 6.2 | 5.35 |
| 5-10 | 3.68 | 8.48 | 101.76 | 7.53 | 12.12 | 10.47 |
| 10-15 | 5.6 | 12.92 | 155.04 | 11.47 | 18.51 | 15.95 |
| 15-20 | 7.4 | 17.07 | 204.84 | 15.16 | 24.4 | 21.07 |

*Note: Some suction pumps may not have enough horsepower to open valve properly.

Ordering Specifications

| Product # | in. | mm | lbs. | kgs | Hydrostatic Head Pressure* (Dimension A) |
|-------------|-------|----|------|------|--|
| 199ASV-1075 | 3/4 | 19 | 1.6 | .725 | 0'-5' |
| 199ASV-2075 | 3/4 | 19 | 1.6 | .725 | 5'-10' |
| 199ASV-3075 | 3/4 | 19 | 1.6 | .725 | 10'-15' |
| 199ASV-1100 | 1 | 25 | 1.6 | .725 | 0'-5' |
| 199ASV-2100 | 1 | 25 | 1.6 | .725 | 5'-10' |
| 199ASV-3100 | 1 | 25 | 1.6 | .725 | 10'-15' |
| 199ASV-1150 | 1 1/2 | 38 | 2.0 | .907 | 0'-5' |
| 199ASV-2150 | 1 1/2 | 38 | 2.0 | .907 | 5'-10' |
| 199ASV-3150 | 1 1/2 | 38 | 2.0 | .907 | 10'-15' |
| 199ASV-1200 | 2 | 51 | 2.0 | .907 | 0'-5' |
| 199ASV-2200 | 2 | 51 | 2.0 | .907 | 5'-10' |
| 199ASV-3200 | 2 | 51 | 2.0 | .907 | 10'-15' |

*Note: Head Pressure calculated for gasoline.



Listings and Certifications



Warning: Do not disassemble.
Do not field adjust.

Materials

Body: Aluminum
Diaphragm: Viton®
Seals & Disc: Viton®
Spring: Stainless steel
Rider Rings: Teflon®
Disc Holder: Nylon
Core Guide: Acetal, delrin
Core & Plugnut: Stainless steel



Features

- ◆ **Aluminum Body** - compatible with gasoline, diesel, kerosene, low grades ethanol/methanol, fuel oil and jet fuels
- ◆ **Strainer** - strainer with 100-mesh screen is recommended at the inlet
- ◆ **Mount** - vertical
- ◆ **Explosion Proof Shell & Water-Tight**
- ◆ **Standard Operation** - 120/60 volts AC
- ◆ **Thermal Expansion**
- ◆ **Power Draw** - 20 Watts @ 60 Hz

Ordering Specifications

| Product # | NPT Size in. | General Purpose | *CV Flow | Fluid Temp. | Operating Pressure Differential (PSI) | | Operating Pressure Differential (BAR) | | Weight lbs. kg | | Mounting Position |
|------------|-----------------|--------------------|-------------|----------------|--|------|--|------|-------------------|------|----------------------|
| | | | | | Min. | Max. | Min. | Max. | | | |
| 821-0075AC | 3/4 | AC | 5.1 | 125 | 0 | 50 | 0 | 3.4 | 2.75 | 1.25 | Any Position |
| 821-0100AC | 1 | AC | 21 | 125 | 0 | 25 | 0 | 1.7 | 5.25 | 2.38 | Upright & Vertical |
| 821-0150AC | 1 1/2 | AC | 35 | 125 | 0 | 25 | 0 | 1.7 | 7.25 | 3.29 | Upright & Vertical |
| 821-0200AC | 2 | AC | 60 | 125 | 0 | 25 | 0 | 1.7 | 7.25 | 3.29 | Upright & Vertical |

*CV Flow: GPM @ 1 psi Pressure Drop

Dimensions

| Product # | A | | B | | C | | D | |
|------------|------|-----|------|-----|------|-----|------|-----|
| | in. | mm | in. | mm | in. | mm | in. | mm |
| 821-0075AC | 3.31 | 84 | 3.64 | 92 | 4.46 | 113 | 2.33 | 59 |
| 821-0100AC | 5.00 | 127 | 5.59 | 142 | 6.84 | 174 | 5.38 | 137 |
| 821-0150AC | 5.00 | 127 | 5.59 | 142 | 6.84 | 174 | 5.38 | 137 |
| 821-0200AC | 6.09 | 155 | 5.94 | 151 | 7.47 | 190 | 6.31 | 160 |

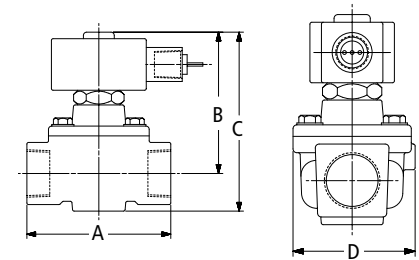
OPW 82RV - Thermal Pressure Relief Valve

| Product # | NPT Size in. | Operating Pressure 25 psi, Stainless Steel Construction | Weight | |
|-----------|-----------------|---|--------|------|
| | | | lbs. | kg |
| 82RV-2505 | 1/2 | | .25 | .113 |

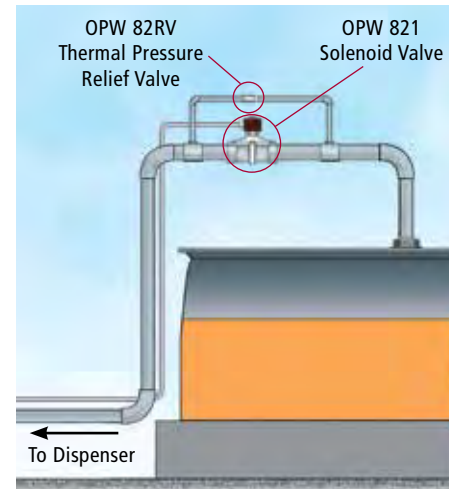


OPW 821 Solenoid Valve

The OPW 821 Solenoid Valve is designed to prevent accidental siphoning of above ground storage tanks if a leak or break occurs in the fuel supply line. The 821 valve is a two-way, normally closed diaphragm valve that opens when energized to allow fuel to flow to the pump or dispenser. Available in female NPT threads.



82RV-2505 Series Pressure Relief Valve
Instruction Sheet Order Number: 200517



OPW 82RV

The 82RV is designed to give thermal pressure relief to our 821 Series Solenoid Valve line. Made of all stainless steel construction with a Viton® seal, it is suitable for all petroleum products. The 82RV is precision set at the factory at 25 PSI (1.7 bar), and is field adjustable from 5 to 30 psi (.34 to 2 bar).

Listings and Certifications



CSA Certified

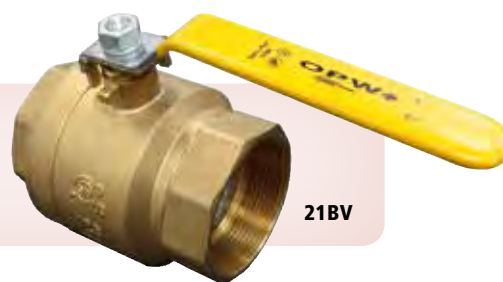
UL Listed

OPW 21BV Full Port Two-Way Ball Valve

OPW Ball Valves are used throughout fueling systems where a shut-off point is desirable to isolate a section of the piping system. These full-port, forged brass valves feature a manual open-close arm and a quick quarter-turn handle, allowing easy shut down of your AST or UST system. Compatible with gasoline, alcohol fuels, diesel and MTBE. Available with Lockable Handle (LH).

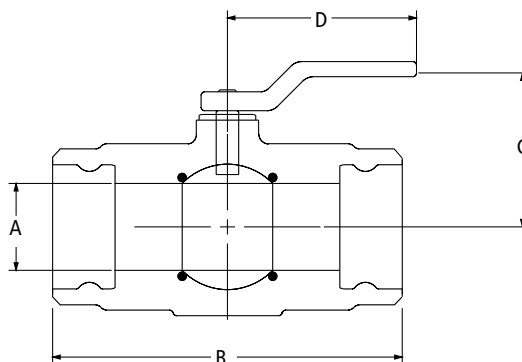
Materials

Body: Brass
Ball: Hard chrome plated
Seal: Teflon®



Features

- ◆ Pressure rated to 600 psig (41 bar) WOG
- ◆ Blowout-proof stem
- ◆ Chrome-plated brass ball
- ◆ Secondary O-ring stem seal
- ◆ PTFE seats, thrust bearing and stem packing



Ordering Specifications and Dimensions

| Model # | Size (in.) | Dimensions (in.) | | | |
|------------------------------|--|------------------|------|------|------|
| | | A | B | C | D |
| 21BV-0050 | 1/2 | 0.59 | 2.28 | 1.81 | 3.35 |
| 21BV-0075 | 3/4 | 0.78 | 2.51 | 2.36 | 4.29 |
| 21BV-0100 | 1 | 0.98 | 2.97 | 2.52 | 4.29 |
| 21BV-0150 | 1 1/2 | 1.57 | 3.87 | 2.72 | 5.63 |
| 21BV-0200 | 2 | 1.96 | 4.29 | 3.03 | 5.63 |
| 21BV-0200SS* | 2 | 1.96 | 4.80 | 3.66 | 7.09 |
| 21BV-0300 | 3 | 3.15 | 6.10 | 5.12 | 8.35 |
| *SS denotes Stainless Steel. | | | | | |
| 202233 | Lockable Handle Kit for 1/2" Model (Handles sold separately) | | | | |
| 202234 | Lockable Handle Kit for 3/4" and 1" Models (Handles sold separately) | | | | |
| 202235 | Lockable Handle Kit for 1-1/2" and 2" Models (Handles sold separately) | | | | |

Listings and Certifications



Materials

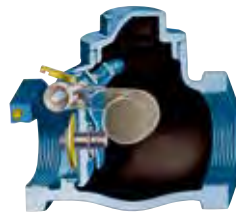
Body and Cap: Ductile iron
Packing Nut and Stem: Stainless steel
Disc: Viton®
Stem Seat: Viton®
Seat Ring: Brass
Cap and Packing Nut Seals: Viton®



(Valve Shown in Open Position)



(Valve Shown in Closed Position)



Features

- ◆ **178S Ductile Iron Construction** – valve is manufactured from a ferrous metal to resist fracturing from high temperatures
- ◆ **Full-Bore Inside Diameter for Superior Flow Rates** – maximizes flow rates in the fuel supply lines
- ◆ **Protected Main Poppet Disc** – main poppet seal is held out of the main flow stream and protected from damage due to dirt or debris in the fuel
- ◆ **Compensator Ring on Main Poppet Carrier** – ensures full seating of the main poppet for a tight seal
- ◆ **Viton® Main Disc and Stem Seat** – compatible with gasoline, diesel, kerosene, ethanol, methanol, MTBE, fuel oil, mogas, motor oil and various other blends of fuel
- ◆ **Rated at Normal Pressure Limit of 125 psi (8.6 bar) (cold)**
- ◆ **Non-Shock Pressure Limit of 200 psi (13.8 bar)**
- ◆ **Temperature Limit 225° F**

Ordering Specifications

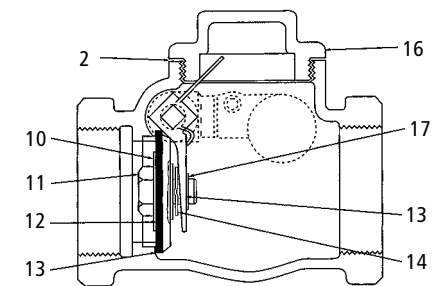
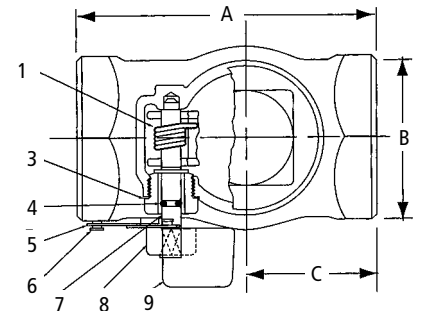
| Product # | in. | mm | lbs. | kg |
|-----------|-----|----|------|------|
| 178S-6130 | 2 | 51 | 5.35 | 2.43 |

Replacement Parts

| Key | Part # | Description |
|-----|----------|------------------------|
| 1 | H05973M | Spring |
| 2 | H12070M | O-ring (Viton®) |
| 3 | H7635RB | Packing Nut |
| 4 | H10445M | O-ring (Viton®) |
| 5 | H01344M | Fusible Link Sub-Assy. |
| 6 | H01505RB | Pin |
| 7 | C01533RB | Stem |
| 8 | H07644M | Set Screw |
| 9 | H07642ZA | Lever |
| 10 | H03295M | Washer |
| 11 | H04035M | Disc Nut |
| 12 | H12071R | Disc (Viton®) |
| 13 | H10004A | Disc Holder |
| 14 | H11293M | Compensating Ring |
| 15 | C03144M | Carrier |
| 16 | H11547DI | Cap |
| 17 | H10003M | Retaining Ring |

OPW 178S Series External AST Emergency Shut-Off Valve

The OPW 178S Series External AST Shut-Off Valve is designed to shut off product flow from an above ground storage tank, bulk loading rack or any place in the fuel supply line in the event of a fire. The 178S installs in-line on fuel supply piping. A fusible link attached to a spring-operated lever holds the poppet normally open. In the event of a fire, the fusible link melts at 160° F, allowing the spring-actuated poppet to shut off the flow of product in the fuel supply line. The 178S is available in 2" female NPT connections.



Dimensions

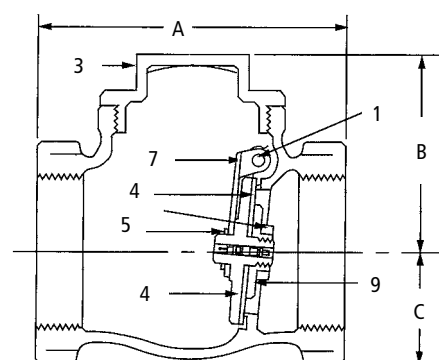
| | in. | mm |
|---|---------------------------------|-----|
| A | 5 ¹⁷ / ₃₂ | 140 |
| B | 3 ¹ / ₁₆ | 78 |
| C | 3 ¹ / ₁₆ | 62 |

**For more information contact
 OPW Customer Service at
 1-800-422-2525; International
 call 1-513-870-3315.**

**Listings and
 Certifications**


OPW Swing Check Valve

The OPW Swing Check Valves are designed to allow one-way product flow in fuel supply lines. OPW Swing Check Valves are installed in-line on fuel supply or transfer piping. A free-swinging poppet in the valve opens with flow of product and closes to prevent back-flow. The swing check valves can be located in either horizontal or vertical piping. The 175 is available in 2" female NPT connections. The 175B is similar to the 175 except it has an internal pressure relief valve to help absorb thermal expansion in the fuel supply or transfer line, pressure relief set at approx. 25 psi (1.7 bar). The 1175 is available in 3" female NPT connections.



Dimensions

| | in. | mm |
|---|---------------------------------|-----|
| A | 7 ¹ / ₂ | 191 |
| B | 7 ³ / ₁₆ | 183 |
| C | 2 ¹⁹ / ₃₂ | 66 |

Materials

Body: Bronze
Seat Ring: Brass
Disc: Viton®
Cap: Bronze

Swing Check Valve



Features

- ◆ **Viton Main Disc** - compatible with gasoline, diesel, kerosene, ethanol, methanol, MTBE, fuel oil, mogas, motor oil and various other blends of fuel
- ◆ **Full-Bore Inside Diameter for Superior Flow Rates** – maximizes flow rates in the fuel supply lines
- ◆ **Easy Service Entry** – threaded cap assembly allows removal, replacement or servicing of the carrier, disc or disc holder
- ◆ **Rated Normal Pressure Limit:** 125 psi (8.6 bar)
- ◆ **Cold Non-Shock Pressure Limit:** 200 psi. (13.8 bar)
- ◆ **Temperature Limit:** 225° F

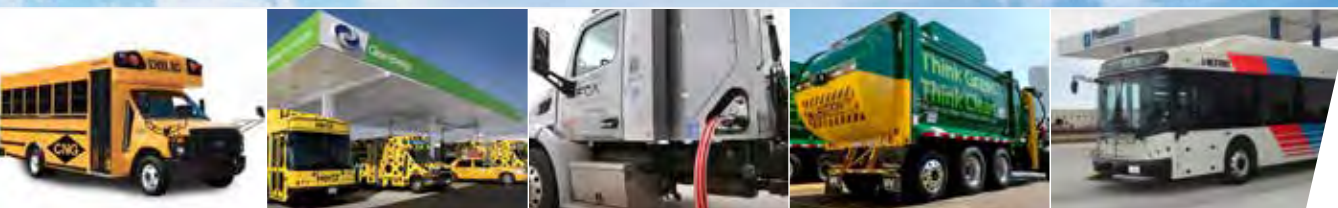
Ordering Specifications

| Product # | in. | mm | lbs. | kg |
|-----------|-----|----|------|------|
| 175-0044 | 2 | 51 | 4.7 | 2.14 |
| 175B-1544 | 2 | 51 | 4.6 | 2.10 |
| 1175-0050 | 3 | 76 | 16.8 | 7.60 |

Replacement Parts

OPW 175, 175B, 1175

| Key | Part # | Description |
|---------------|----------|----------------|
| 1 (175,175B) | H00409RB | Pin |
| 1 (1175) | H06797RB | Stem |
| 2 (175,175B) | H00404RB | Plug |
| 2 (1175) | H06798RB | Plug |
| 3 (175,175B) | H00642B | Cap |
| 3 (1175) | H06800B | Cap |
| 4 (175,175B) | H12071R | Disc |
| 4 (1175) | H06799 | Disc Sub-Assy. |
| 5 (175, 175B) | H04035M | Disc Nut |
| 6 (175) | H07488A | Disc Holder |
| 6 (175B) | H07495A | Disc Holder |
| 7 (175, 175B) | H07610RB | Carrier |
| 7 (1175) | H06796B | Carrier |
| 8 (175, 175B) | H05792M | Retaining Ring |
| 9 (175, 175B) | H03295M | Washer |
| 10 (1175) | H04250M | Lock Nut |



CLEANENERGY

FUELING PRODUCTS



We are dedicated to continuous innovation in the design, engineering and manufacture of high-quality components used for alternative fueling applications, such as CNG (compressed natural gas). A division of OPW, the global leader in fueling solutions since 1892, CleanEnergy Fueling Products is a name synonymous with innovation, quality, reliability and Customer service. OPW CleanEnergy Fueling Products offers you a complete selection of alternative fueling products to meet your specification. Each product is designed and built to exacting standards for your fueling safety and efficiency.





CNG Fueling Nozzles (NGV1 & ISO14469)

OPW CleanEnergy Fueling Products offers an extensive line of CNG Fueling Nozzles to meet a wide variety of fueling applications. OPW CNG nozzles are used throughout the world.



NT2AP30 (Type 2 or 3)

The NEW NT2A Series nozzle is designed to be versatile for all of your Type-2 CNG fueling applications. The NT2A has true Class-A specified durability and will optimize your time-fill, fast-fill and fleet fueling sites. The ergonomic design, positive locking jaws and best in class internal seals will make this nozzle the preferred choice of your operators.



NT2AP36 (Type 2 or 3)



CNG Type 2 Fueling System

The OPW CleanEnergy CNG 3-Way Valve and Type 2 Nozzle features the latest in industrial and commercial fueling innovations. A Fueling System which bridges the gap between convenience and comfort, without sacrificing flow or reliability. Ergonomically designed to be easy to use and prevent unnecessary wear and tear during the fueling process.



1000 Series (Type 1)

OPW 1000 Series self-service nozzles are designed for high-flow public and private CNG fueling systems. Applications include quick-fill, self-service fueling of automobiles, light trucks, shuttle buses and vans.



Pistol Grip Series Self-Service Nozzles (Type 1)

OPW Pistol Grip Series Self-Service Nozzles are designed for high-flow public and private CNG fueling systems. Applications include quick-fill, self-service fueling of automobiles, light trucks, shuttle buses and vans.



5000 Series (Type 1)

OPW 5000 Series nozzles are designed for extremely high-flow public and private CNG fueling systems. Applications include quick-fill, self-service fueling of transit buses and large trucks.



6000 Series (Type 2)

OPW 6000 Series nozzles are designed for extremely high-flow public and private CNG fueling systems when connected to OPW CL50 series receptacles. Applications include quick-fill, self-service fueling of transit buses and large trucks.



BDN Vehicle Defueling Nozzle

OPW has developed this tool to safely depressurize vehicles. This valve can also be used to transfer fuel from one vehicle to another in the event of a breakdown on the side of the road, or be used in areas where no refueling station is available.

Electronic Fuel Management Systems

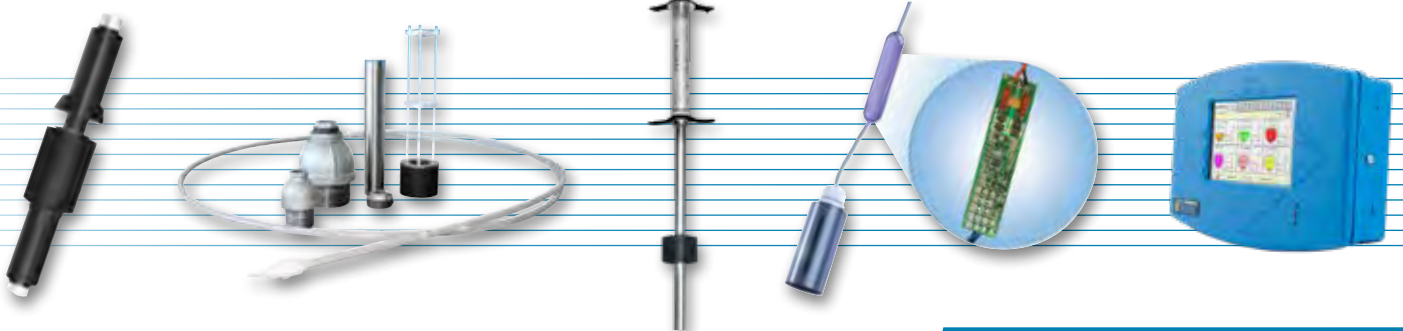
Making Sure You're in Complete Control, From Anywhere, All The Time.

Innovation is a defining value principle at OPW Fuel Management Systems (FMS).

OPW FMS provides the industry's most innovative tank gauging systems to retail and commercial operations all over the world. OPW's leading tank monitoring systems, including the SiteSentinel® Nano®, Integra 100™, and Integra 500™ ensure that you know exactly how much fuel you have.

For more than 50 years, OPW FMS has delivered product excellence and a broad line of tank gauge solutions engineered to streamline operations, reduce fuel losses and improve compliance management. From OPW's powerful tank gauging and proprietary multi-drop tank-monitoring technology, OPW FMS provides a portfolio of solutions engineered to be both cutting edge and cost saving.

Call: **(708) 485-4200** for more information



Comprehensive Fuel Management



**1 BEST-IN-CLASS SITESENTINEL®
INTEGRA 100™, INTEGRA 500™,
NANO® CONSOLE**



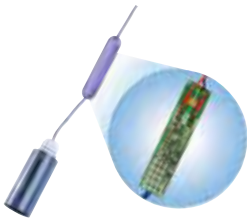
**2 BEST-IN-CLASS
VSMART MODULE**



**3 BEST-IN-CLASS
LINE LEAK
DETECTION**



**4 BEST-IN-CLASS
AQUEOUS ETHANOL
FLOAT SENSOR**



**5 BEST-IN-CLASS
INTELLISENSE™
SMART SENSORS**



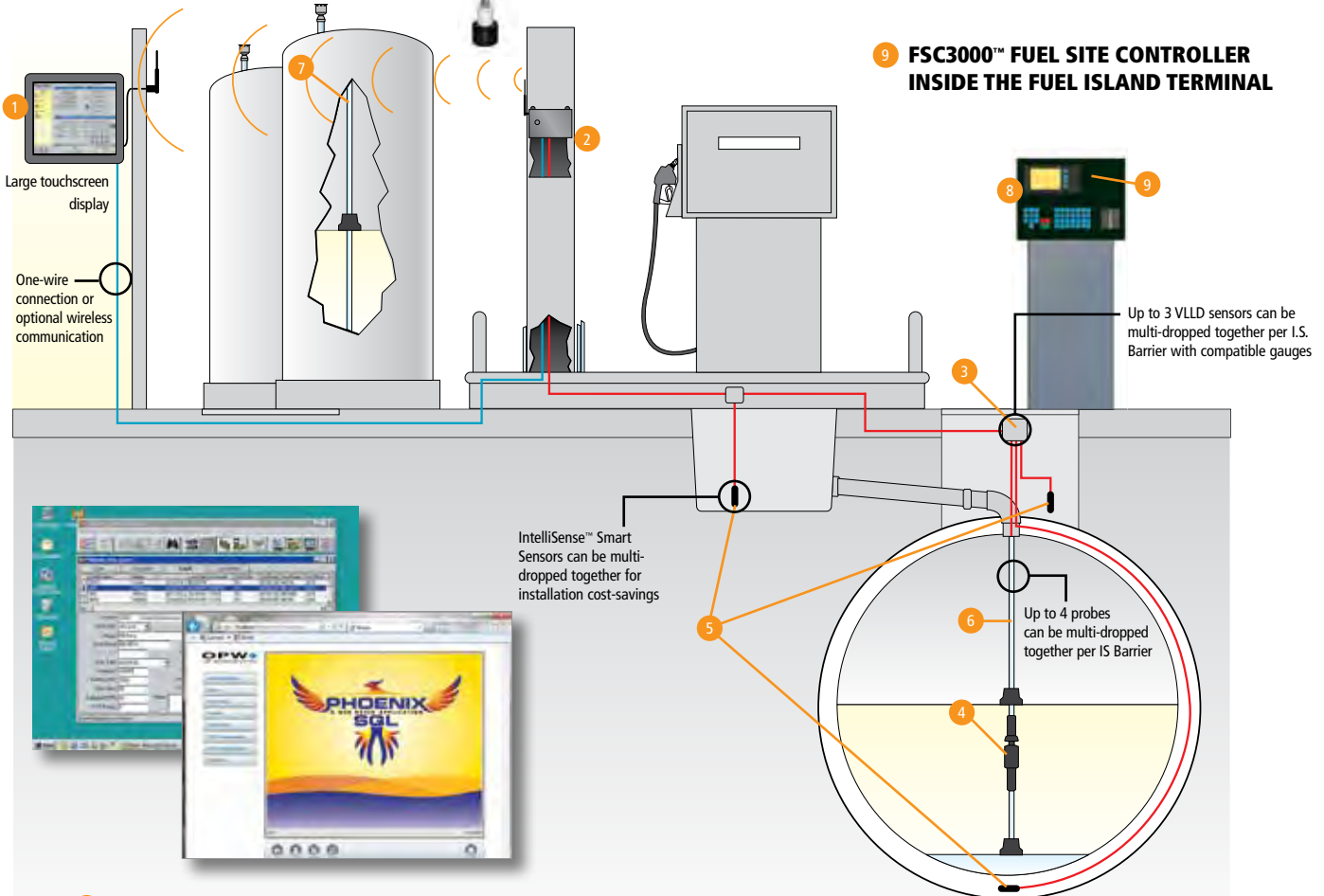
**6 BEST-IN-CLASS
924B MAGNETOSTRICTIVE
PROBE**



**7 BEST-IN-CLASS
AST FLEXIBLE PROBE**

**8 PETRO VEND 100®, DTC, vvz™ HYBRID,
C/OPT™ & FIT500™ FUEL CONTROL SYSTEMS**

**9 FSC3000™ FUEL SITE CONTROLLER
INSIDE THE FUEL ISLAND TERMINAL**



10 PHOENIX® SOFTWARE



SURF'S UP.

With the newly redesigned Tandem Surfline, throughput and profits will be up too. Now faster and more efficient than ever before, the most innovative automatic friction wash just got better.

A second side brush helps get customers through quicker, and our wall-mount system and Ultimate Cover package is now standard. Pumps and solution controls are off-board. And with all non-corrosive materials and optional Ultimate Lighting packages, the Tandem Surfline will always look as good as it cleans.

DRIVE | CLEAN.



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PDQ VEHICLE WASH SYSTEMS

Helping to Make Car Wash Operators Successful Since 1984



For the past 30 years, PDQ has provided the car wash industry with cutting-edge technological advances in car wash equipment and car wash systems, including the first contouring arch and the Virtual Treadle.

PDQ has always been recognized as the world-leading manufacturer of touch-free car wash equipment with one of the most powerful names in the industry – LaserWash®.

That same energy and passion that we bring to the touch-free industry is being unleashed onto the friction market with our ProTouch® line of in-bay automatic brush equipment.



OPW Listing and Certifications

Every year we introduce more safety and environmental-protection innovations to the industry than any other petroleum equipment manufacturer. Leading-edge innovations such as the new 1-2200™ single-wall replaceable spill container, 68EZR™ reconnectable breakaway, Fibrelite covers and tank sumps,

decommissioning hanging hardware kits, the SiteSentinel® Integra 100™ automated tank gauge systems all serve to illustrate how OPW is **Leading the Way** in helping to protect the well-being of people and the environment – today, tomorrow and into the future. That's the nature of OPW.

OPW products may hold one or more listings or certifications with the following agencies:

CARB
California Air Resources Board



OPW is a member of the following associations:



NATIONAL COUNCIL OF WEIGHTS AND MEASURES



National Association of Convenience Stores



Below Ground Products Fuel Compatibility Matrix

Updated 12/2018

| OPW Product Number | Description | Standard Fuels: ≤15% Ethanol Gasoline ≤5% Bio-Diesel* | High Ethanol Content Gasoline: 15-100% Ethanol | High Biodiesel Content 5-20% Biodiesel* | High Biodiesel Content 5-100% Biodiesel* | Av-Gas/ Jet Fuel | Kerosene/ Fuel Oil | DEF (Diesel Exhaust Fluid) |
|--|--|---|--|--|---|------------------------|-----------------------|-------------------------------------|
| CXXA Double Wall Piping | Double Wall Primary Piping | X | X | X | X | X | X | X |
| DPC Series | Double Wall Pipe Couplings | X | X | X | X | X | X | |
| SPC Series | Single Wall Pipe Coupling | X | X | X | X | X | X | |
| SBC Series | Stainless Steel Swivel Bolt On Coupling | X | X | X | X | X | X | X |
| SMA-1515, SMA-1520, SMA-2020, SMA-3030 | E-Coated Male Adaptors | X | X | X | X | X | X | |
| SMA-7575, SMA-1010 | Swivel Male Adaptor (Brass or Zinc Plated) | X | | | | | X | |
| STF-1515, STF-2020, STF-2215, STF-2020 | E-Coated Swivel Tees | X | X | X | X | X | X | |
| SFA-7575, SFA-1010 | Swivel Female Adaptor (Brass or Zinc Plated) | X | | | | | X | |
| SEF-1515, SRE-2015, SEF-2020, SEF-3030 | E-Coated Swivel Elbows | X | X | X | X | X | X | |
| Polyethylene and Fiberglass Sumps | Dispenser, Tank, Loop, and Transition Sumps | X | X | X | X | X | X | X |
| REF Series Entry Fittings | Entry Fittings | X | X | X | X | X | X | X |
| DEB and EBF Series | Entry Boots | X | X | X | | X | X | X |
| 1-2100 Series / Multiports / 1-2200 Series | Spill Containers | X | X | X | X | X | X | *** |
| FibreTite Multiports | Spill Containers | X | X | X | X | X | X | *** |
| 101BG-Series | Spill Containers | X | X | X | X | X | X | *** |
| 1-3100 Series (Edge) | Double Wall & Single Wall Spill Container Series | X | X | X | X | X | X | *** |
| 60V Series | Vapor Line Shear Valve | X | X | X | X | X | X | |
| 10 Series | Emergency Shut Off Valve | X | X | X | X | X | X | |
| 10 Plus Series | Emergency Shut Off Valve | X | X | X | X | X | X | |
| 60V-DEF | DEF Series Shear Valve | | | | | | | X |
| 61SALP Series | Fill Swivel Adaptor | X | X | X | X | X | X | |
| 633T-8076 | Fill Adaptor | X | X | X | X | X | X | |
| 61VSA Series | Vapor Swivel Adaptor | X | X | X | X | X | X | |
| 1611AVB-1625 | Vapor Adaptor | X | X | X | X | X | X | |
| 634TT-7085-EVR | Fill Cap | X | X | X | X | X | X | |
| 1711T-7085-EVR | Vapor Cap | X | X | X | X | X | X | |
| 634LPC-040 | Low Profile Fill Cap | X | X | X | X | X | X | |
| 1711LPC-0300 | Low Profile Vapor Cap | X | X | X | X | X | X | |
| 62M Series | Monitoring Probe Cap | X | X | X | X | X | X | X |
| 6150 & 7150 Series | Overfill Valve | X | | | | X | X | |
| 61SOM & 71SOM Series | Overfill Valve Anodized | X | X | | | X | X | |
| 7150-B Series | High BioDiesel Overfill Valve | X | | X | X | X | X | |
| 6111 & 61TP Series | Tank Bottom Protectors | X | | | | X | X | |
| 61T Series | Drop Tubes | X | | | | X | X | |
| 61T-SS Series | Stainless Steel Drop Tube | X | X | X | X | X | X | |
| 61T-DEF Series | Stainless Steel DEF Drop Tube | | | | | | | X |
| 233 Series | Extractor Valve | X | X | X | X | X | X | X |
| FCXX Series | Stainless Flex Connectors | X | X | X | X | X | X | X |
| 53VML/30MV Series | Ball Floats | X | X | X | X | X | X | |
| 523V Series | Pressure Vacuum Vent | X | X | X | X | X | X | X |
| 623V Series | Pressure Vacuum Vent | X | X | X | X | X | X | X |
| 723V Series | EVR Pressure Vacuum Vent | X | X | X | X | X | X | X |

* Bio-Diesel must meet ASTM Standard for fuel quality to maintain compatibility with products above

*** Drain plug versions compatible with DEF if installed with Stainless Steel Drop Tube between Nipple and Fill Adaptor

≤ Refers to less than or equal to the fuel standard rating for percentage of content



Above Ground Products Fuel Compatibility Matrix

Updated 1/2015

| OPW Product Number | Description | Unleaded Fuels up to 10% Ethanol (≤E10) | Petroleum Diesel | Up to 25% Ethanol (≤E25) | Up to 85% Ethanol (≤E85) | Up to 100% Ethanol (≤E100) | Bio-Diesel | | Av-Gas | Jet Fuel | Kerosene/Fuel Oil |
|----------------------|---|---|------------------|--------------------------|--------------------------|----------------------------|------------|----|--------|----------|-------------------|
| 11A Series | Automatic Conventional Nozzles | | UL/ULC | | | | UL | UL | | | X |
| 11AP Series | Automatic Conventional Nozzles | UL/ULC | | UL/ULC | | | | | | | |
| 11AF Series | Farm Nozzles | | UL/ULC | | | | UL | UL | | | X |
| 11APF Series | Farm Nozzles | UL/ULC | | UL/ULC | | | | | | | |
| 11B Series | Pressure Sensing Automatic Conventional Nozzles | | UL/ULC | | | | UL | UL | | | X |
| 11BP Series | Pressure Sensing Automatic Conventional Nozzles | UL/ULC | | UL/ULC | | | | | | | |
| 11BP E85 Series | Pressure Sensing Automatic Nickel Plated Conventional Nozzles | UL | | UL | UL | X | | | | | |
| 7H Series | Automatic High Flow Conventional Nozzles | | UL/ULC | | | | UL | UL | | | X |
| 7HB Series | Pressure Sensing Automatic High Flow Conventional Nozzles | | UL/ULC | | | | UL | UL | | | X |
| 12VW Series | Vacuum Assist Nozzles | UL | | | | | | | | | |
| 311 Series | General Duty Manual Nozzles | UL | UL | | | | X | X | | | X |
| 190/210/295SC Series | Manual Bulk Nozzles | X | X | X | | | X | X | | | X |
| 295SAJ | Manual Jet Fuel Nozzle | | | | | | | | X | X | X |
| 295SA/SAC Series | Manual Av-Gas Nozzles | X | | X | | | | | X | X | X |
| 1290 Series | Automatic Bulk Fueling Nozzles | X | X | X | | | X | X | | | X |
| 1291 Series | Automatic Bulk Fueling Nozzles | ULC | ULC | | | | ULC | | | | ULC |
| 241 Swivels | Two Plane Hose Swivels | UL/ULC | UL/ULC | UL | | | UL | UL | | | X |
| 241TPS-0492 | Nickel Plated Two Plane Hose Swivels | UL | | UL | UL | X | UL | UL | | | X |
| 45 Swivels | Two Plane Hose Swivels | UL/ULC | UL/ULC | UL | | | UL | UL | | | X |
| 365 Swivels | Straight Swivels | UL | UL | | | | X | X | | | X |
| 25 Swivels | Bulk Straight Swivel | X | X | X | | | X | X | X | X | X |
| 68EZR Breakaway | Various Reconnectable and Single Use Vac Assist Breakaways | UL/ULC | UL/ULC | UL | | | UL | X | | | X |
| VaporSaver™ 1 | Tank Pressure Management System | UL / ATEX | | | | | | | | | |
| CVS2™ | Central Vacuum System | UL | | | | | | | | | |

UL - UL listed X - Compatible ULC - UL Canada



Above Ground Storage Tank Equipment Fuel Compatibility Matrix

Updated 1/2015

| OPW Product Number | Description | Unleaded Fuels up to 10% Ethanol (≤E10) | Up to 25% Ethanol (≤E25) | Up to 85% Ethanol (≤E85) | Petroleum Diesel | Bio-Diesel | | Av- Gas | Jet Fuel | Kerosene/ Fuel Oil |
|---------------------------|--|---|-----------------------------------|-----------------------------------|---------------------|------------|---|------------|-------------|-----------------------|
| 523V Series | Pressure Vacuum Vent | UL | X | X | UL | X | X | X | X | X |
| 623V Series | Pressure Vacuum Vent | UL | X | X | UL | X | X | X | X | X |
| 61VSA-1020-EVR | Vapor Swivel Adaptor | X | X | X | X | X | X | X | X | X |
| 1611AVB-1625 | Vapor Adaptor | X | X | X | X | X | X | X | X | X |
| 1711T-7085-EVR | Vapor Cap | X | X | X | X | X | X | X | X | X |
| 1711LPC-0300 | Low Profile Vapor Cap | X | X | X | X | X | X | X | X | X |
| 301 & 201 Series | Emergency Vents | UL/ULC | X | X | UL/ULC | X | X | X | X | X |
| 200TG Series | AST Mechanical Gauge | UL | X | X | UL | X | X | X | X | X |
| 444TA Series | Tank Alarms | ETL | X | X | ETL | X | X | X | X | X |
| 821 Series | Solenoid Valves | UL | X | | UL | X | | X | X | X |
| 21BV SS | Full Port Stainless Steel Ball Valves | UL/ULC | X | X | UL/ULC | X | | X | | X |
| 331 / 332 Series | AST Spill Containers | UL/ULC | X | X | UL/ULC | X | X | X | X | X |
| 61f STOP | AST Overfill Valve | UL/ULC | X | | UL/ULC | X | | | | X |
| 61f STOP - A or M Version | AST Overfill Valve Anodized | UL/ULC | X | X | UL/ULC | X | | X | X | X |

UL - UL listed X - Compatible ULC - UL Canada

OPW Approvals / Listings

FlexWorks Third-Party Approvals - FlexWorks Products

| Product | Certifying Agency: | Specification/Standard: |
|---|--|--|
| Tank Sumps, Piping Sumps, Tank Adaptor Fittings for Tank Sumps, Dispenser Pans, Shallow Dispenser Sumps, and Deep Dispenser Sumps with or without Emergency Valve Mounting Frame Systems and Penetration Fittings. Product #: DS/DSW/DP-XXXX, SBK-XXXX, TSS/TSM/TSD-XXXX | Underwriters Laboratories Inc. UL Listed per: File MH19391 | Flammable and Combustible Liquid Tank Accessories (EGVV) |
| Dispenser Sumps/Pans, Risers, Tank Sumps, Entry Fittings Product #: DS/DSW/DSF/DP-XXXX, SBK-XXXX, TSS/TSM/TSD-XXXX, CS-XXX, BF-XXX, PST, PSTF, PSL, TSD, TSM, TSS, FDS, DSL, DBS, EBF and REF series | Underwriters Laboratories of Canada File: MH27190 | ULC Listed per: ULC/ORD-107.21, Under Dispenser Sumps & Tank Risers for Flammable and Combustible Liquids |
| AXP40, DS, DP, DBS, DSW, MBS, PSL, TSD, TSS, TSM, PTS, and DSL series | Underwriters Laboratories Inc. UL Listed per: File MH60659 | UL Listed per: UL 2447, Containment Sumps, Fittings, and Accessories for Fuels |
| Primary/Secondary Pipe and Couplings C075A, C10A, C15A, C20A, and C30A Series | Underwriters Laboratories Inc. File: MH16678 EN 4 | UL Listed per: UL 971 - Non-metallic Underground Piping for Flammable and Combustible Liquids (Motor Vehicles, Aviation, Marine Fuels) |
| Primary/Secondary Pipe and Couplings CEN-xxxx | ERA Technology Ltd EN14125 | |
| Sealant Polyurethane Adhesive/Sealant Product #: FlexWorks SL-1100 and BOSTIK-1100FS | State of California Registered Professional Engineer Approval (RHL Design Group) OPW Test Report #3505 Dated 11/16/99 May National Associates, Inc. Project Report #PU051502 06/26/02 May National Associates, Inc. Project Report | CCR Title 23 Division 3, Chapter 16, Section 2631 (d) AB2481 requires secondary containment for all underground piping in UST system |

FlexWorks Third-Party Approvals - ERA Certified Products

| Product No. | Description | Certification |
|-------------|--|------------------|
| FlexWorks | Primary/Secondary Containment Pipe & Couplings | BC63/0433/98.003 |

FlexWorks Florida EQ Certifications

| Product No. | Description | Certification |
|---|--|-------------------------|
| C075, C075A, C10, C10A, C15, C15A, C20, C20A, C30, C30A | Primary Pipe | Florida EQ-649 & EQ-772 |
| Loop System | Piping/ Piping With Enclosed Secondary Containment Equipped with Sump Liner, Dispenser Liner, and Interstitial Release Detection (Flexible Piping) | Florida EQ-709 |

OPW Patents - FlexWorks Piping Systems, Sumps, Fittings

United States Patents

| | | | | |
|-----------|-----------|-----------|-----------|-----------|
| 5,813,797 | 6,099,202 | 6,729,797 | 8,020,576 | 8,667,687 |
| 5,819,975 | 6,116,817 | 7,073,976 | 8,066,024 | |
| 5,950,860 | 6,371,154 | 7,104,727 | 8,393,647 | |
| 6,039,201 | 6,565,127 | 7,578,308 | 8,622,097 | |

Ireland, Scandinavia, Luxumborg Patents

213-530

Poland Patents

11,401,010-00-203373-USDCURRO1-59

Taiwan Patents

8,920,312

Europe Patents

3356-54EP

Brazil Patents

PI9908225-0

China Patents

05-100023269

Canada Patents

2,322,216 2,492,346 2,782,925

Mexican (Patent Application No.)

| | | | | |
|---------|---------|---------|---------|---------|
| 002,952 | 209,733 | 221,155 | 984,583 | 993,305 |
| 194,949 | 218,307 | 984,582 | 993,304 | 999,158 |

Spain (Patent Application No.)

97,909,839.9

Argentina (Patent Application No.)

AR008317B1 AR008316B1 AR008312B1

California Air Resources Board, EVR, State of Missouri and Mexico Approvals

| Product # | Description | Approval # | EVR Executive Order # | MOPETP # | Mexico Approvals |
|-------------------------|------------------------------------|--------------------------------|--|------------------|-----------------------------------|
| 1611AV-1620 | Vapor Recovery Adaptor | MO. No. 99-03 / 98-06 | | APCP-0002-001-99 | |
| 1-2100 | Spill Container | CARB No. 93-26 | VR-102 | APCP-0002-001-99 | |
| 1-2100 (EVR) (ISC) | Spill Container (with drain valve) | MO. No. 99-03 | VR-102 | APCP-0002-001-99 | |
| 1C-2100 (EVR) | Spill Container | CARB No. 93-26 | VR-102 | APCP-0002-001-99 | |
| 1C-2200 | Spill Container | | VR-102 | | |
| 1-2115 (EVR) | Spill Container | CARB No. 93-26 | VR-102 | APCP-0002-001-99 | |
| 1C-2115 (EVR) | Spill Container | CARB No. 93-26 | VR-102 | APCP-0002-001-99 | |
| 1DK-2100 | Replacement Drain Valve Kit | Approval CARB No. 95-7 | VR 102 | | |
| 1DP-2100 | Replacement Drain Plug Kit | | VR-102 | | |
| 1-3100 | Spill Container | MO. No. 06-01A | VR-102 | | |
| 101BG(S)-2100 | Spill Container | CARB No. 93-26 | | | |
| 101BG(S)-2115 | Spill Container | CARB No. 93-26 | | | |
| 30MV | Ball Float Vent Valve | CARB No. 95-33 | | | |
| P500 Series | Spill Container | | VR-102 | | |
| P700 Series | Spill Container | | VR-102 | | |
| 53FC | Float Vent Valve | MO. No. 99-03 | | APCP-0002-001-99 | |
| 53VML | Ball Float Vent Valve | CARB No. 92-4 | | APCP-0002-001-99 | |
| 60VP | Vapor Shear Valve | CARB No. 94-27 | | | |
| 60VSP | Vapor Shear Valve | CARB No. 97-15 | | | |
| 60VSPC | Vapor Shear Valve | CARB No. 97-15 | | | |
| 61SA | Swivel Adaptor | CARB No. 95-1 | | APCP-0002-001-99 | SEGEMDGPCCAT-MTSR-VDOVER/001/2004 |
| 61SA Tool | Installation Tool | | VR-102 | | |
| 61SO | Overfill Valve | CARB No. 92-5/93-2/97-04/95-17 | | | |
| 61SOM | Overfill Valve | CARB No. 92-5 | | | |
| 61SOP | Overfill Valve | CARB No. 92-8 | | | |
| 61VSA (EVR) | Vapor Swivel Adaptor | CARB No. 00-11 | VR-102 | APCP-0002-001-99 | SEGEMDGPCCAT-MTSR-VDOVER/001/2004 |
| 61JSK (EVR) | Jack Screw Kit for 61SO | | VR-102 | APCP-0002-001-99 | |
| 61SALP-EVR | Fill Swivel Adaptor | | VR-102 | APCP-0002-001-99 | |
| FSA-400 | Face Adaptor | | VR-102 | APCP-0002-001-99 | |
| 61AS | Side-Seal Adaptor | CARB No. G70-97A | | | |
| 61T | Drop Tube | CARB No. G70-97A | VR-101 & VR-102 | APCP-0002-001-99 | |
| 61TCP | Coaxial Drop Tube | CARB No. 93-1 | | | |
| 62 | Side-Seal Cap | CARB No. G70-97A | | | |
| 62M | Monitoring Cap | | VR 102 | APCP-0002-001-99 | |
| 62TT | Side-Seal Cap | CARB No. G70-97A | | | |
| 116 | Cap | CARB No. G70-97A | | | |
| 71SO-400C/410C/420C (T) | Vapor-Tight Overfill Valve | | VR-102 | APCP-0002-001-99 | |
| 233V | Extractor | CARB No. G70-97A | | APCP-0002-001-99 | |
| 233VM | Extractor | CARB No. G70-97A | | APCP-0002-001-99 | |
| 233SD | Extractor | CARB No. G70-97A | | | |
| 233VTS | Extractor/Assembly | CARB No. G70-97A | | | |
| 311 | Multi-Port Spill Container | CARB No. 93-25 | | | |
| 511 | Multi-Port Spill Container | CARB No. 92-12 | | | |
| 500L | Replaceable Spill Bucket | | VR-102 | APCP-0002-001-99 | |
| 6500 Series (EVR) | Multi-Port | | VR-102 | APCP-0002-001-99 | |
| 523 | Pressure/Vacuum Vent | CARB No. 94-22/92-28/94-11 | | | |
| 523V | Pressure/Vacuum Vent | CARB No. 98-1 | | APCP-0002-001-99 | |
| 633LC | Locking Clamp | CARB No. 97-14 | | APCP-0002-001-99 | |
| 633T | Top-Seal Adaptor | CARB No. G70-97A | | APCP-0002-001-99 | |
| 633TCP | Top-Seal Adaptor | CARB No. G70-97A | | | |
| 634TT (EVR) | Top-Seal Cap | CARB No. G70-97A | VR-101 & VR-102 | APCP-0002-001-99 | |
| 700L | Testable/Replaceable Spill Bucket | | VR-102 | | |
| 1711T (EVR) | Vapor Recovery Cap | CARB No. G70-97A | VR-101 & VR-102 | APCP-0002-001-99 | |
| 1711TK | Cap | CARB No. G70-97A | | | |
| 6111-1400 (EVR) | Tank Bottom Protector | CARB No. 98-21 | VR-102 | APCP-0002-001-99 | |
| 211 | Spill Container | CARB No. AGT-94-01 | | | |
| 1711LPC | Low Profile Vapor Cap | | VR-101, VR-102, VR-103, VR-104, & VR-105 | APCP-0002-001-99 | |
| 634LPC | Low Profile Fill Cap | | VR-101, VR-102, VR-103, VR-104, & VR-105 | APCP-0002-001-99 | |

UL Listed Products - Below Ground Products

OPW Approvals / Listings

| Product | Description | File # |
|---|---|---------|
| 10 Series | Emergency Shut-Off Valves | MH6535 |
| 523V, 623V | Pressure/Vacuum Vents, tested per UL 2583 | MH19391 |
| 62M, 62MAB, & 62MBB, 633T, 61AS, 61SALP, 1611AV, 61VSA Series. EGVV per UL 2583 | Caps & Adaptors | MH19391 |
| 60V, 60VP, 60VSP, & 60VSPC | Vapor Shear Valves | MH6535 |

ULC Listed Products - Below Ground Products

| Product | Description | File # |
|---------------------|-------------------------------------|---------|
| 10 Series | Emergency Shut-Off Valves | MH27238 |
| 6150 & 7150 | Overfill Valve | MH21147 |
| 7150 | Vapor-Tight Overfill Valve | MH21147 |
| 705 | Vertical Check Valve | MH27238 |
| 1, 1SC & 101BG | Spill Containers | MH27236 |
| Flex Connectors | Stainless Steel Flexible Connectors | MH48310 |
| Fibrelite Multiport | Spill Containment Manholes | MH27236 |

ERA Certified Products - Below Ground Products

| Product | Description | File # |
|-----------|--|------------------------------------|
| FlexWorks | Primary/Secondary Containment Pipe & Couplings | BC63/0681/97/003; BC63/0681/97/004 |

ATEX Certified / Compliant - OPW Below Ground Products

| Product | Description | Certificate # |
|------------------------------|--|------------------|
| 523 P/V Vent | Type 523 P/V vent - End-of-line Deflagration Flame Arresters, 523 METAL UK, 523 METAL UKDI | Sira 05ATEX9050X |
| 623 V Vent | End-of-Line Deflagration Flame Arresters 623-V 2203, 0623-V 3203 | Sira 05ATEX9049X |
| 66VL Breakaway Valves | 66VL-01AT, 66VL-02AT | Sira 06ATEX9326U |
| Model 10 Series Shear Valves | Emergency Shut-Off Valves | Sira 06ATEX9341U |
| 7150, 6150 | Overfill Valve | Sira 08ATEX9047 |

Florida EQ Certifications

| Product # | Description | Certification |
|--------------------------------|--|---------------|
| 111/211/311/511 | Multi-Port Spill Containers | EQ-145 |
| 1, 1SC, 101BG, 111, 211 Series | Spill Containers | EQ-224 |
| 1C-3101D, 1C3101P | EDGE 1" Series Single Spill Container | EQ-718 |
| 1C-3100 Series | EDGE" Double Wall Spill Container | EQ-708 |
| 500L | Secondary Containment Spill Containers | EQ-588 |
| 700L | Secondary Containment Spill Containers | EQ-640 |
| 61SO, 61TNG, 53V, 30MV Series | Overfill Valves & Ball Floats | EQ-123 |
| 6591B | Dual Port Spill Containers | EQ-638 |
| 71SO Series | Overfill Prevention Valve | EQ-697 |
| 71SO Testable Series | Overfill Prevention Valve | EQ-815 |
| 1-3100 15 Gallon Series | Spill Containment | EQ-794 |
| 1-3700 Retrofit Series | Spill Containment Replacement | EQ-795 |
| 331 / 332 AST Series | Direct-Fill Spill Container | EQ-814 |
| 1-2200 Series | Spill Container | EQ-829 |
| Fibrelite Multiport | Spill Containment Manholes | EQ-859 |

North Carolina

| Product # | Description | Certification |
|-----------|-----------------------------|---------------|
| IC-3100 | Double Wall Spill Container | EQ-708 |

Wisconsin Department of Commerce

| Product # | Description | Certification |
|------------|---------------------|---------------|
| FC XX-XXXX | OPW Flex Connectors | |

Arizona Department of Weights and Measures

| Product # | Description | Certification |
|-----------|--|-----------------|
| 61SO-EVR | Overfill Protection in Vaulted Systems | VR Alert No. 12 |

OPW Patents - Below Ground Products

Emergency Shut-Off Valves (10 Plus Series)

| Patent # | Country |
|---------------------|----------------------------|
| 7,578,308 | USA |
| 8,020,576 | USA |
| 8,066,024 | USA |
| P10703905-0 | Brazil |
| 2605139 | Canada |
| 017913 | EPC |
| 017913 | Eurasian Patent Convention |
| 200710166890.3 | China |
| 1916221 and 2314541 | France |
| 2314541 | Germany |
| 1916221 | Great Britain |
| 2314541 | Great Britain |
| 300952 | India |
| 1916221 and 2314541 | Italy |
| 5128901 | Japan |
| 1497148 | Korea |
| 277128 | Mexico |
| 2314541 | Poland |
| 017913 | Russia |
| 1916221 and 2314541 | Spain |
| I337236 | Taiwan |

Spill Containers

| Patent # | Country |
|-----------|---------|
| 8,622,097 | USA |
| 2717743 | Canada |

Coax Couplings

| Patent # | Country |
|-----------|---------|
| 6,565,127 | USA |

Loop System

| Patent # | Country |
|-----------|---------|
| 7,073,976 | USA |

Drop Tube (7150)

| Patent # | Country |
|---|---------|
| 7069965, 7243675, 6913047, 7128102, 7213610, 7437815, 7,243,675 | USA |
| 2503927, 2503671, 2503923, 2503667, 2503924, 2503676 | Canada |
| I344920, I333920, I347918, I331115 | Taiwan |
| 290614, 304329, 278650, 297969, and 294422 | India |
| 4813085 and 4871525 | Japan |
| 10-1050556 and 10-1057906 | Korea |

DPC with Test Port

| Patent # | Country |
|-----------|---------|
| 7,104,727 | USA |

SBC Coupling

| Patent # | Country |
|-----------|---------|
| 8,393,647 | USA |

REF Fitting

| Patent # | Country |
|-----------|---------|
| 8,667,687 | USA |
| 2782925 | Canada |

Electrotite Junction Box

| Patent # | Country |
|------------|---------|
| 10,218,163 | USA |
| 2,965,929 | Canada |

Matador Backfill Protector

| Patent # | Country |
|------------|---------|
| 10,294,627 | USA |

Testable Overfill Valve

| Patent # | Country |
|------------|---------------------|
| 9,463,971 | USA |
| 2801784 | Canada |
| 2631211 | Germany, France, UK |
| 13155871.4 | Europe |
| 16185737.0 | Europe |

UL Listed Products - Above Ground Products

OPW Approvals / Listings

| Product | Description | File # | UL Online Certifications |
|-----------------------|---|---------------|---|
| 11A Series & Astro | Automatic Nozzle | MH1942 |  MH1942 |
| 11B Series & AstroB | Pressure-Sensing Automatic Nozzle | MH1942 | |
| 1A Series | Automatic Nozzle | MH1942 | |
| 7H Series | Automatic Nozzle | MH1942 | |
| 7HB Series | Pressure-Sensing Automatic Nozzle | MH1942 | |
| 11AF | Farm Nozzle | MH1942 | |
| 21Ge | Pressure-Sensing Automatic Nozzle for E85 | MH1942 | |
| 12VW | Vacuum-Assist Nozzle | MH1942 | |
| 20S | Hose Swivel | MH4542 | |
| 21BV Series | Ball Valves | MH15855 | |
| 241TPS | Two-Plane Swivel | MH4542 |  MH4542 |
| 241TPS-0492 | Two-Plane Swivel for E85 | MH4542 | |
| 36S | Hose Swivel | MH4542 | |
| 45 | Hose Swivel | MH4542 | |
| MFVA | Vacuum-Assist Vapor Recovery Swivel | MH4542 | |
| 199ASV | Anti-Siphon Valve | MH8488 | |
| 44 & 44N | Flow Limiters | MH8488 | |
| 66FL-1000 | Vacuum-Assist Flow Limiter | MH8488 | |
| VaporSaver™ 1 | Tank Pressure Management System | MH10040 | |
| 523, 523V, 523AV | Pressure/Vacuum Vents | MH19391 | |
| 623V XXXX | Pressure Vacuum Vent | MH19391 |  MH8488 |
| 821 Series | Solenoid Valve | E12264 | |
| 66RB | 1" Reconnectable Breakaway | MH18037 | |
| 66SB | Swivel Breakaway | MH18037 | |
| 66ISU | Vacuum-Assist Vapor Recovery Breakaway | MH18037 | |
| 66ISB | Vacuum-Assist Vapor Recovery Breakaway | MH18037 | |
| 66REC | 3/4" Reconnectable Breakaway | MH18037 | |
| 66V | Breakaway | MH18037 | |
| 66V-0492 | Breakaway for E85 | MH18037 | |
| 66CAS | Dry Reconnect Inverted Breakaway | MH18037 | |
| 66EZR | Dry Reconnect Inverted Breakaway | MH18037 |  MH10040 |
| 66CL/CSU/CLP | Coaxial Breakaways | MH18037 | |
| 202 Series | Emergency Vents | MH25724 | |
| 301 Series | Emergency Vents | MH25724 | |
| 61f STOP-XXXT Version | AST Overfill Valve | MH25724 | |
| 200TG | Mechanical Tank Gauge | MH29367 | |
| 44TA-LLFS | Liquid-Level Float Switch Sub Assembly | E177423 | |
| X44TA-0100 | Liquid-Level and Overfill Alarm | ETL302278-H01 | |
| | | | |
| | | | |
| | | | |



MH1942



MH4542



MH8488



MH10040



MH19391



MH18037













MH25724



MH29367

UL Listed for Canada and ULC - Above Ground Products

OPW Approvals / Listings

| Product | Description | File # | UL Canada Online Certifications | |
|----------------------|-----------------------------------|------------------------------------|---|---|
| 11A Series & Astro | Automatic Nozzle | MH1942 |  MH1942 |  MH8488 |
| 11B Series & AstroB | Pressure-Sensing Automatic Nozzle | MH1942 | | |
| 7H Series | Automatic Nozzle | MH1942 | | |
| 7HB Series | Pressure-Sensing Automatic Nozzle | MH1942 | | |
| 44 & 44N | Flow Limiters | MH8488 |  MH4542 |  MH18037 |
| 11AKF & 11AKPF | Farm Nozzle | MH1942 | | |
| 241TPS | Two-Plane Swivel | MH4542 | | |
| 20S | Hose Swivel | MH4542 | | |
| 45 | Hose Swivel | MH4542 |  MH27235 |  MH27236 |
| 66SB | 3/4" Swivel Breakaway | MH18037 | | |
| 66REC | Reconnectable Breakaway | MH18037 | | |
| 66RB | 1" Reconnectable Breakaway | MH18037 | | |
| 66V | Breakaway | ULC MH27235, UL for Canada MH18037 |  MH25724 |  MH19391 |
| 61fSTOP-XXXX Series | Overfill Prevention Valve | MH25724 | | |
| 61fSTOP-XXXXT Series | Overfill Prevention Valve | MH25724 | | |
| 6211 Series | Remote-Fill AST Spill Containers | MH27236 | | |
| 6221 Series | Direct-Fill AST Spill Containers | MH27236 |  MH25724 |  MH19391 |
| 331 / 332 Series | AST Spill Containers | MH19391 | | |

MoPETP (Missouri Performance Evaluation Testing Procedures)

| | | |
|--------------|----------------------|-------------------------|
| 11VF-47 | Balance Nozzle | MoPETP 99-03 |
| 66CL/CSU/CLP | Coaxial Breakaway | MoPETP 99-03 |
| 523V | Pressure/Vacuum Vent | APCP-0002-001-99 |
| 62M | Monitoring Cap | MOPETP APCP-0002-001-99 |

Florida

| | | |
|----------------------------|-------------------------------|--------|
| 211AST, 211 REMOTE, 221AST | AST Spill Containers | EQ-226 |
| 61fSTOP Series | AST Overfill Prevention Valve | EQ-225 |

New York City Fire Department Certification Number

| | | |
|---------|-------------------------------|------|
| 61fStop | AST Overfill Prevention Valve | 4949 |
|---------|-------------------------------|------|

KIWA Approvals

| | | |
|---------|-------------------|-----------|
| 199-ASV | Anti-Siphon Valve | K22656/01 |
|---------|-------------------|-----------|

Other VaporSaver Approvals

| | | |
|---|---|--|
| ATEX – SIRA 03ATEX 9535 | Texas ORVR Certification Approval Letter: 12/01/04 | |
| TUV – 97-11.1 | Mexico – SEGEMDGPCCAT- MTSR- VDOVER/001/2004 | |
| Independent 3rd Party Certified C-030501 | Japan – KHK File# 16-4-5 | |
| MDE Regulation Chapter 02.03 c(5)b | | |

CARB EVR Certified Products - Above Ground Storage Tank Equipment

| Product | Description | EO Number |
|--|----------------------------------|----------------|
| 301-XXXX | Emergency Vent | VR 401 |
| 61fSTOP-XXXX | Overfill Prevention Valve | VR 401 |
| 331-ASTWXX & 332-ASTWXX | Direct Fill Spill Container | VR 401 |
| 1611AN-XXXX & 1612AN-XXXX | Kamvalok Adaptor | VR 401 |
| 634B-XXXX & 634BK-XXXX | Dust Cap | VR 401 |
| 61VSA-1020-EVR | Rotatable Swivel Adaptor | VR 401 |
| 1711T-7085-EVR & 1711LPC-0300 | Vapor Recovery Caps | VR 401 |
| 61FT-XXXX | Drop Tube | VR 401 |
| 200TG-ENG, 200TG-ENG40, 200TG-MET, 200TG-MET40 | Mechanical Tank Gauge | VR 401 |
| 144TA-XXX | Tank Alarm | VR 401 |
| 44TA-LLFS | Liquid Level Float Switch | VR 401 |
| 66CLP-5100 | Balance, Reconnectable Breakaway | VR 204, VR-203 |

| Product | Description | CARB Certification | CA Fire Marshal |
|--------------------------------|---|--|-------------------|
| 12VW | Vacuum-Assist Nozzle | G-70-153, G-70-150, G-70-199 | GVRC: 005:008:059 |
| 66CAS | Dry Reconnect Inverted Breakaway | 96-18 | GVRC: 005:008:056 |
| 66ISU | Vacuum-Assist Breakaway | 94-9 | GVRC: 005:031:009 |
| 66ISB | Swivel/Breakaways | 95-35 | GVRC: 005:031:016 |
| 66CL/CSU/CLP | Coaxial Breakaway | 91-14 | GVRC: 005:008:047 |
| Vacurite® 00-40005C | Centralized Vacuum-Assist Vapor Recovery System | G-70-164-AA, G-70-175 | GVRC: 004:001:001 |
| Max Vacurite® AST 00-40001C | Centralized Vacuum-Assist Vapor Recovery System | G-70-164-AA, G-70-175-AST | GVRC: 004:001:001 |
| Micro Vacurite® 00-40003.UL | Centralized Vacuum-Assist Vapor Recovery System | 98-13, G-70-164-AA | GVRC: 004:001:002 |
| VacuSmart™ | Air to Liquid Test Equipment | CARB Approved Alternative to TP-201.5 | N/A |
| VacuChek™ | Air to Liquid Test Equipment | CARB Approved Alternative to TP-201.5 | N/A |
| VaporSaver™ | Tank Pressure Management System | G-70-204A | GVRC: 005:008:062 |
| 61fSTOP | AST Overfill Valve | CARB No. ATG-01-01 | N/A |
| 523V | Pressure/Vacuum Vent | CARB No. 98-1 | N/A |

OPW Patents - Above Ground Products

Nozzles

| Patent # | Country |
|---------------------------------------|-------------------|
| 5,645,115 | USA |
| 5,454,602 | USA |
| 5,813,443 | USA |
| 5,620,030 | USA |
| 5,4353,57 | USA |
| 5,577,538 | USA |
| 6,851,628 | USA |
| 6,951,229 | USA |
| 8,371,341 | USA |
| 8,616,252 | USA |
| 8,528,609 | USA |
| 8,631,837 | USA |
| 8,636,027 | USA |
| 7,134,580 | USA |
| 6,024,140 | USA |
| 9,126,820 | USA |
| 9,260,286 | USA |
| 5,832,970 | USA |
| D728,736 | USA |
| D738,461 | USA |
| 2011316968 | Australia |
| 348967 | Australia |
| 349307 | Australia |
| ZL201180056513.9 | China |
| ZL201180058887.4 | China |
| ZL 201330216105.7 | China |
| 9178054.4 | EPC |
| 002145748-0001 and 002145748-00002 | European Union |
| 254172 | India |
| 254173 | India |
| 326551 | Mexico |
| 417587 | New Zealand |
| 417970 | New Zealand |
| 598980 | New Zealand |
| 609846 | New Zealand |
| 91392 | Russia |
| 2013119834 | Russia |
| 2013/02827 | South Africa |
| 93130770 | Taiwan |

Breakaways

| Patent # | Country |
|-----------|---------|
| 5,695,221 | USA |
| 5,564,471 | USA |
| 5,570,719 | USA |
| 8,931,499 | USA |
| 5,529,085 | USA |

Island Forms

| Patent # | Country |
|------------------------|---------|
| 6,099,202, 6,375,384B1 | USA |
| 1227417C | China |
| 2,322,216 | Canada |
| 221,155 | Mexico |

Storage Tank Emergency Vent Valve (AST)

| Patent # | Country |
|-----------|---------|
| 5,141,020 | USA |

Storage Tank Shut-Off Valve (61fSTOP) AST

| Patent # | Country |
|-----------|---------|
| 5,472,012 | USA |
| 5,850,849 | USA |

Tank Gauge (AST)

| Patent # | Country |
|----------------------|---------|
| 6,523,404, 7,174,784 | USA |
| P10501119-1 | Brazil |
| 2492346 | Canada |
| 94100860 | Taiwan |
| 05-10002326.9 | China |
| 22/che/2005 | India |
| 2005-7183 | Japan |
| 4005/2005 | Korea |

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OPW STANDARD PRODUCT WARRANTY

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 | 1 year from date of manufacture |
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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 (repairs or replacements 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. This limited warranty also shall not apply to any FlexWorks, VAPORSAVER™ or other OPW product: unless all required site and warranty registration forms are completed and received by OPW within 60 days of installation; 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.

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