# **Above Ground Products**

# **Setting the Industry Standard for More Than 120 Years**

Conventional Automatic Nozzles
Automatic Nozzles
• Extreme Cold Weather Nozzles
Custom Hand Insulator Imprinting
• OPW AdMaster™
• VR and Balance ConVRsion Packages
• 11AF® 3/4" Automatic Nozzles
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# 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.

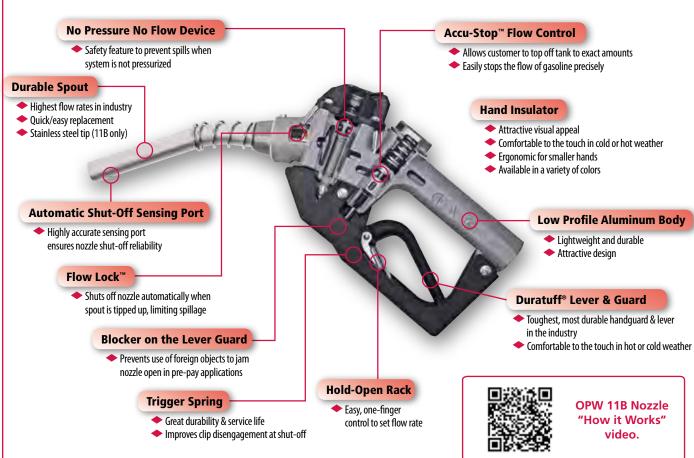


## OPW NEWGARD™ Full Hand Insulator

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.

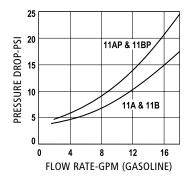


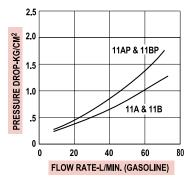
## **OPW AUTOMATIC NOZZLE FEATURES – MULTIPLE SOLUTIONS FOR MULTIPLE CUSTOMERS**



# 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.



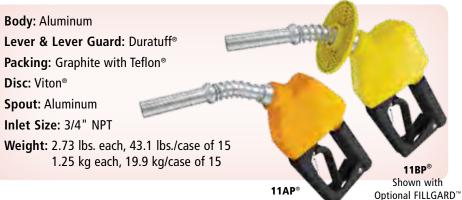


#### **Accessories**

Name	Product #	Description	Used For:
<sup>3</sup> / <sub>4</sub> " to 1" Bushing	285-0350	3/4" MNPT to 1" FNPT Bushing	Converting 11 Series nozzle for use on 1" hose
1" to <sup>3</sup> / <sub>4</sub> " Bushing	28R-2404	1" Male x ³/4" Female	Converting 11 Series nozzle for use on 1" hose

## **Materials**

FIRST to Meet NEW
UL 2586 Requirements



#### **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<sup>®</sup>.
- 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. 154	Replacement Hand Insulators	11A, 11AP, 11B, 11BP
NEWGARD KIS	3ee pg. 134	Replacement Hand Histiators	NEWGARD Replacements
Instruction Sheet	H15985M	Installation and Instruction Sheet	11A, 11AP, 11B, 11BP
mstruction sneet	HIJOOJNI	installation and instruction sheet	Instruction Sheet

# Listings and Certifications





NOTE: 11A and 11B nozzles models are available with 1- or 2-piece Hand Insulators.

See pages 301-302 for certification number



#### **Ordering Specifications**

$E extsf{-}10$ 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	_

<sup>\*11</sup>A 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

<sup>\*11</sup>A Nozzles are no longer permitted and sold with Hold-Open Clips per UL 2586 requirements.

#### 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

#### **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	_

<sup>\*11</sup>A 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
Green	11A-0100-B20	11B-0100-B20
Black	11A-0400-B20	11B-0400-B20
Yellow	11A-0900-B20	11B-0900-B20

<sup>\*11</sup>A 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 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 301-302 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

FILLGARD™
Nozzles (above) shown with optional hand insulator. Hand insulator not included.

7HB-0100-XC

11BP-0100-XC

Shown with Optional

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.

## **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

#### **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 165
20S Series	Cold Weather Swivel – See page 161

#### **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, <sup>13</sup> / <sub>16</sub> " O.D. Unleaded Spout	11AKP Spout Replacement
11B Leaded Spout Kit	5BBS-2135XC	11B, <sup>15</sup> / <sub>16</sub> " O.D. Leaded Spout	11B Spout Replacement
11BP Unleaded Spout Kit	5BBPS-2137XC	11BP, 13/16" O.D. Unleaded Spout	11BP Spout Replacement

<sup>\*</sup>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.



**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



#### **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 then 1 million cycles – Better then 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 then previous designs.

#### **Appealing to Customers**

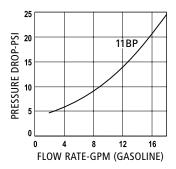
- Easy to use utilizing Accu-Stop® to-the-penny Flow Control Technology.
- Attractive 2-Piece NEWGARD™ Hand Insulator is the most comfortable nozzle in the industry to use.
- Convenient one-finger hold-open clip that is easy to set the flow rate (not on all models).

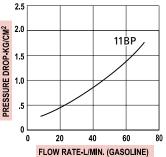
#### **Design working pressure**

- 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)	47/8"	23/16"
	19 mm x 19 mm	124 mm	56 mm

# **Replacement Parts**

Product	Product	0.D.		Length		Weight	
Product	#	in.	mm	in.	mm	lbs.	kg
11BP spout replacement kit	5BBPI-0492	<sup>13</sup> / <sub>16</sub> "	21	7"	178	.47	.22

NEWGARD™ Kits See page 154.

11BP Instruction Sheet Order Number: **H15889PAE** 

# 66V Ordering Specifications E85 Approved

Dua duat #	Size		We	ight	
Product #	in.	mm	lbs.	kg	Pull Force
66V-0492	<sup>3</sup> / <sub>4</sub> " F x <sup>3</sup> / <sub>4</sub> " F (NPT)	19 F x 19 F	0.60	0.27	300 lbs.

66V Series 3/4" Instruction Sheet Order Number: H10993PA

Listings and Certifications



**UL Listed for up to 85% Ethanol** 

# **Customize** and Colorize



#### **Hundreds of Hand Insulator Colors to Choose From**



your Logo Artwork.



#### **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**







# **OPW Quick and Easy ConVRsion Package**

Use the OPW quick and easy ConVRsion package when converting or decommissioning your Stage II Vapor Recovery System.

#### **Features**

- Factory Assembled
- 100% Tested and Certified
- Quick, Easy Conversion
- Reduced Dispenser Downtime





#### **Unleaded and Diesel Packages Include** 3/4" Nozzle A 11BP Nozzle **B** 241TPS-0241 3/4" 2-Plane Swivel 66H-0975 Standard 3/4" Whip Hose, or 66H-0975-LP 9 inch long, 3/4" NPT Low Permeation 3/4" Reconnectable D 68EZR-7575 Breakaway 66H-08575 Standard 3/4" Hose, or 66H-08575-LP 8-1/2" feet long, Low Permeation 3/4" NPT FILLGARD™ Splash Guard - Color will match Hand Insulator

#### **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, Standard Hose
B' I W'4 .	
Diesel Kits	
PK-EZR0100-L1	3/4" Leaded Green Nozzle, Standard Hose
	3/4" Leaded Green Nozzle, Standard Hose 3/4" Leaded Yellow Nozzle, Standard Hose
PK-EZR0100-L1	· · · · · · · · · · · · · · · · · · ·

#### **Vac-Assist and Balance Packages Include** 3/4" Nozzle A 11BP Nozzle B 241TPS-0241 3/4" 2-Plane Swivel 66H-0975 Standard 3/4" Whip Hose, or 66H-0975-LP 9 inch long, 3/4" NPT Low Permeation 3/4" Reconnectable D 68EZR-7575 **Breakaway** 66H-08575 Standard 3/4" Hose, 8-1/2" feet long, or 66H-08575-LP Low Permeation 3/4" NPT FILLGARD™ Splash Guard - Color will match Hand Insulator VAR75\* Vac-Assist to Conventional Adaptor 28C-0028\* **Balance to Conventional Adaptor**

## **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
Dalamas Dass	!
Balance Deco	mmissioning Kits
BA-EZR0100	3/4" Unleaded Green Nozzle, Standard Hose
	<del>_</del>
BA-EZR0100	3/4" Unleaded Green Nozzle, Standard Hose

Contact OPW Customer Service for custom models.



Contact OPW Customer Service for custom models.

**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**

- 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.
- Easy to open, even at high pressures utilizing Dual Poppets.
- Convenient one-finger hold-open clip that is easy to set the flow rate. (not on all models)
- 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	sprin	pout, hanger, g and en rack	standard	3/4" spout, spring and oen rack	Includes <sup>3</sup> / <sub>4</sub> " spout, hanger, spring and no hold-open rack		
Color	For Unleaded For Service Diesel Service		For Unleaded Service	For Diesel Service	For Leaded Service	For Unleaded Service	
Green		11AF-10FS					
Red	11APF-30FS		11AF-300F	11APF-300F			
Black	11APF-40FS	11AF-40FS			11AF-4FSC	11APF-4FSC	

<sup>\*</sup>Beginning April 30, 2015; nozzles without a no-pressure no-flow or interlock device may not be ULC listed with Hold-Open Clips.

#### Replacement Spout Kits

mephasement speat this								
Product #	0.	0.D.		Length		ight	Used On	
Product #	in.	mm	in.	mm	lbs.	kg	oseu on	
5BF-0112	<sup>15</sup> / <sub>16</sub>	24	7	178	.59	.27	11AF®-No Hook	
5BFS-0113	<sup>15</sup> / <sub>16</sub>	24	7	178	.59	.27	11AF® w/ Farm Hook	
5BPF-0172	13/16	21	7	178	.59	.27	11APF-No Hook	
5BPFS-0173	<sup>13</sup> / <sub>16</sub>	21	7	178	.59	.27	11APF w/ Farm Hook	

NEWGARD™ Kits See page 154.

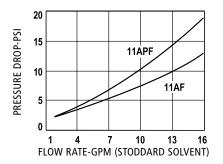
# **Automatic Nozzles**

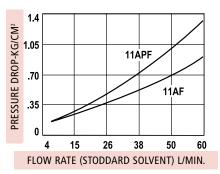
**OPW 11AF® 3/4"** 

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



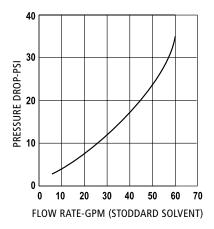


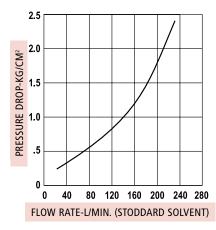
See pages 301-302 for certification number

## OPW 7H<sup>®</sup> and 7HB<sup>®</sup> 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.\*  Durable lever guard that won't scratch your customers' vehicles – made from Duratuff®.

7H®

FIRST to Meet NEW UL 2586 Requirements

 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 301-302 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 154. \*7H 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	7H°* with 7H°* without Spout Ring Spout Ring		7HB <sup>®</sup> with Spout Ring	7HB <sup>®</sup> 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 154. \*7H Nozzles are no longer permitted and sold with Hold-Open Clips per UL 2586 requirements.

#### **Replacement Parts**

			7H®							
Dun dunat	Part #	0.	).D.*		ngth	Weight		U I O		
Product		in.	mm	in.	mm	lbs.	kg	Used On		
7H Spout Kit w/ spout ring	5BH-0115	1 ³/ <sub>16</sub> *	30	7	178	.66	.30	7H®		
7H Spout Kit w/o spout ring	5BH-5115	1 ³/ <sub>16</sub>	30	7	178	.66	.30	7H® (w/o ring)		
12-inch 7H Spout Kit	5BHB-0125	1 ³/ <sub>16</sub>	30	12	305			7H®		
NEWGARD™ Kits	See page 154									

		7HВ®						
Dun dunt	Part #	O.D.*		Length		Weight		Hand On
Product		in.	mm	in.	mm	lbs.	kg	Used On
7HB Spout Kit was spout ring	5BBH-0136	1 ³/16*	30	7	178	.65	.30	7HB®
7HB Spout Kit w/o spout ring	5BBH-5136	1 <sup>3</sup> / <sub>16</sub>	30	7	178	.66	.30	7HB® (w/o ring)
NEWGARD™ Kits	See page 154							7HB®

<sup>\*</sup> Spout end with anchor ring is 131/64" O.D.

7H®, 7HB® Series Instruction Sheet Order Number: **H15985M** 

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.

#### **Custom Colors**

With minimum quantities.
Contact OPW customer service.







## **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 twopiece 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**

<b>Hand Insulator</b>		NEWGARD™	1 piece		NEWGARD™ 2 piece		FILLGARD™	
Color	11A®	11B®	7H®	7HB®	11A®	11B®	11A® &11B®	7H <sup>®</sup> / 7HB <sup>®</sup>
Green	D01246M	C03647M	E00307M	E00325M	D01773M	D01529M	8G-0100	8HG-0100
Silver	D01174M	C03648M			205217	D02078M	8S-0200	
Red	D00907M	E00304M		211218	D01775M	D01789M	8R-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		
Note: Barrel and Han	d Insulator sold ser	parately.			D01	30M		

Custom Colors: With minimum quantities. Contact OPW Cu	Lustomer Service.
--	-------------------

☐ White	Azure Blue	Brown
Light Red	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.\*\*



<sup>\*\*</sup> 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 Meets ISO 22241 Compatibility Testing for DEF Contamination 21Gu-0500 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 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

## **Design working pressure**

50 psi (3.45 bar) maximum pressure.

# MIS-FILLING PREVENTION

WITH the OPW 21Gu nozzle and Mis-Filling Prevention Device (MFPD), your investment is safe.





Nozzle Magnetic Interface is Not Actuated and DEF Cannot Contaminate Your Diesel Fuel Tank



#### Other DEF Nozzle

WITHOUT the OPW 21Gu nozzle and Mis-Filling Prevention Device (MFPD), your investment is at risk.





There is Nothing
to Stop the Nozzle
from Contaminating
Your Diesel
Fuel Tank

Listings and Certifications

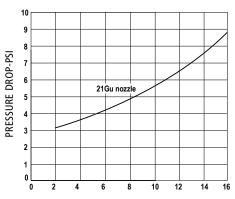
ISO 22241 Compliant

No

#### 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



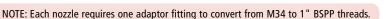
FLOW RATE-GPM (STODDARD SOLVENT)

#### **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.

## **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
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





Bennett®, Separation by Design®, Wayne® Guard (Standard) and Gasboy®



Gilbarco® Guard

#### **Replacement Parts**

Product #	Description
206466	21GU-0500 & 050G Blue Hand Insulator
205077	21GU-0400 & 040G Black Hand Insulator

#### **CHOOSE YOUR NOZZLE OUTLET STYLE**

21GU-SFH 21GU-SSS 21GU-SSB Stainless Steel Fixed Hose Fitting Stainless Steel Swivel Stainless Steel Swivel / Reconnectable Breakaway



#### **Features**

- SST construction and compatible with ISO 22241 Standard
- Converts nozzle from M34 threads to 1" BSPP



- **Features**
- SST construction and compatible with ISO 22241 Standard
- Converts nozzle from M34 threads to 1" BSPP
- Long lasting single plane swivel
- Includes 21GU-SCS for attractive installation and protection of vehicles



# **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



# **21Gu Nozzle Adaptor Ordering Specifications**

Product #	Description
21GU-SFH	DEF Stainless Steel Fixed Hose Inlet, 1" BSPP male
21GU-SSS	DEF Stainless Steel Swivel, 1" BSPP male
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 (Comes with 21GU-SSS)
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.

Note: Want them individually packaged for retail? Contact OPW customer service at 1-800-422-2525.

# **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.





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.

OPW → DEFHOSE HAY 380A

- Durable, reliable, long-life performance and maximum flow efficiency.
- Anti-kinking sleeve at nozzle end to reduce wear on hose during use.

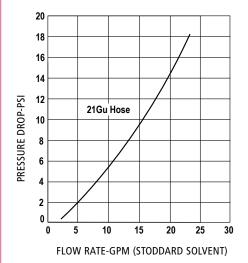
# **Ordering Specifications**

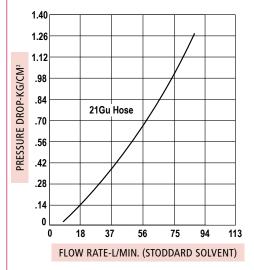
Product #	Description
21GU-H11	DEF Hose Assembly, 11 ft. for Bennett® & Gasboy® Dispensers
21GU-H12	DEF Hose Assembly, 12 ft.
21GU-H15	DEF Hose Assembly, 15 ft. for Separation by Design® Dispensers
21GU-H17G	DEF Hose Assembly, 17.4 ft. for Gilbarco® Retail and Wayne® Dispensers
21GU-H21	DEF Hose Assembly, 21 ft.
21GU-HRS	DEF Hose Replacement Seals (10 per pack)
204128	Bulk DEF Hose, order by foot
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.





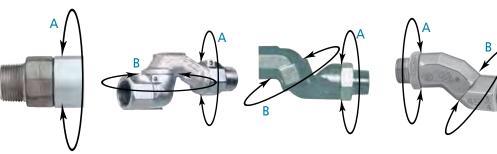
# **Conventional Swivels & Breakaways**



Swivel Breakaway Selection Chart	159
Hose Swivels	
Swivel/Breakaways	16
Reconnectable Breakaways	164 - 160
Single Use Breakaways	16
• 66U Carias Hasa	16'



#### **SWIVELS**



Model	36S	241TPS	20S	45
Rotation A	360°	360°	360°	360°
Rotation B	N/A	270°	360°	360°
O-Ring Design	Dual O-Ring — Viton®/Buna-N	Dual O-Ring — Viton®/Buna-N	Dual O-Ring/Viton® Fluorcarbon	Dual Seal – Viton®
³/4" Model	Yes	Yes	Yes	Yes
1" Model	Yes	Yes	Yes	Yes
Page	195	162	161	160
Cold Weather Option	No	No	Yes	Yes

## **BREAKAWAYS**





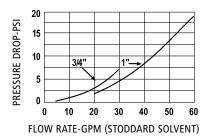


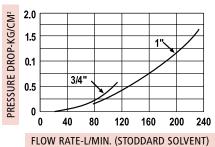


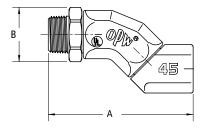
Model	66V	66RB	68EZR	66REC	66SB
Style	Single Use	Reconnectable	Reconnectable	Reconnectable	Reconnectable
Cost	<ul><li>Low Initial Unit Cost</li><li>Requires Service Call To Replace</li></ul>	<ul><li>Higher Initial Unit Cost</li><li>No Service Call Required To Reconnect</li></ul>	<ul><li>Higher Initial Unit Cost</li><li>No Service Call Required To Reconnect</li></ul>	<ul><li>Higher Initial Unit Cost</li><li>No Service Call Required To Reconnect</li></ul>	<ul><li>Higher Initial Unit Cost</li><li>No Service Call Required To Reconnect</li></ul>
Application	<ul><li>High Hose Dispensing</li><li>Requires Whip Hose</li></ul>	<ul><li>High Hose Dispensing</li><li>Requires Whip Hose</li></ul>	<ul><li>High Hose Dispensing</li><li>Requires Whip Hose</li></ul>	<ul><li>High Hose Dispensing</li><li>Requires Whip Hose</li></ul>	• No Whip Hose Required
³/4" Model	Yes	N/A	Yes	Yes	Yes
1" Model	Yes	Yes	N/A	N/A	Yes
Other Features	Available with a Whip Hose Combination		Audible Click	Audible Click	Combines Swivel & Breakaway
Page	167	166	164	165	163
Cold Weather Option	No	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.

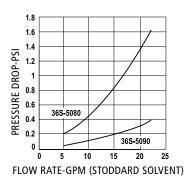






#### **OPW 36S Hose Swivel**

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



#### **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	<b>Across Corners</b>	Weight		
Flouuct #	Size	Α	В	lbs.	kg	
4E E060	3/4" F x 3/4" M (NPT)	41/8"	1 <sup>9</sup> / <sub>16</sub> "	.65	.30	
45-5060	19 mm x 19 mm	105 mm	40 mm			
45-5075	1" F x 1" M (NPT)	43/4"	17/8"	1.16	.53	
45-50/5	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



#### **Ordering Specifications**

<b>Product Number</b>	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.



**Body:** Aluminum

Outlet Adaptor: Zinc aluminum Inlet Adaptor: Zinc aluminum Seals: Fluorosilicone and Viton®

Weight: 3/4": .70 lbs. each; .32 kg

1": 1.20 lbs. each; .54 kg



3/4" 205

#### **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 20S is factory assembled and tested.
- Better flow performance less restriction means higher refueling speeds.
- Hi-grade seals for added protection against cold temperature and chemical degradation.
- Approved for Extreme Cold Weather

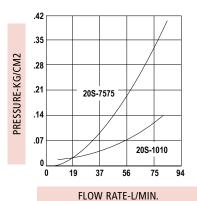
#### **Design working pressure**

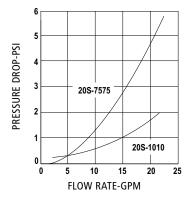
◆ 50 psi (3.45 bar) maximum pressure.

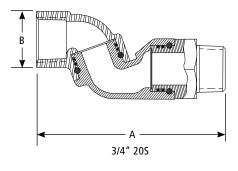


#### **OPW 20S Hose Swivel**

The OPW 20S Swivel has sleek and solid construction as well as superior engineering. The OPW 20S possesses two 360° swivel rotations, reducing hose wear. For low-temperature performance, choose the OPW 20S Swivel.







# **Ordering Specifications**

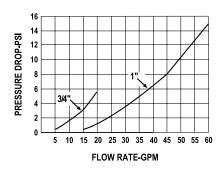
Product #	Size		Α		В		Weight	
	in.	mm	in.	mm	in.	mm	lbs.	kg
205-7575	3/4" F x 3/4" M	19 F x 19 M	4.40	111.76	2.13	54.10	0.70	0.32
205-1010	1" F x 1" M	25 F x 25 M	5.48	139.19	2.66	67.56	1.20	0.54

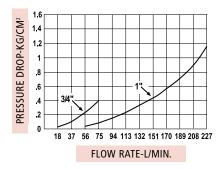
Listings and Certifications

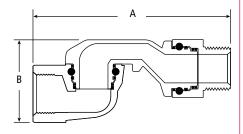


# **OPW 241TPS Series Hose Swivels**

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 241TPS-0492* (E85)	3/4" F x 3/4" M (NPT)	47/8"	23/16"
241TPS-75RF** (E25/B20)	19 mm x 19 mm	124 mm	56 mm
241TPS-1000	1" F x 1" M (NPT)	61/32"	217/32"
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.



Body: Aluminum
Sleeve: Nylon, HDPE

Seals: Viton®

**Spring:** Stainless steel **Poppet:** Aluminum

Packed: 20 per Case



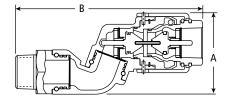
#### **Features**

- 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 singleunit 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**

Dunalmat #	c:	Weight		
Product #	Size	lbs.	kg	
66SB-7575	3/4" x 3/4" (NPT)	1	0.45	
66SB-1010	1" x 1" (NPT)	1.82	0.83	

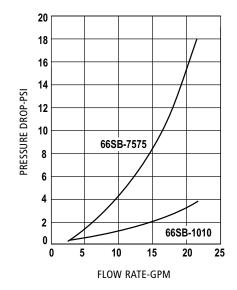
#### **Dimensions**

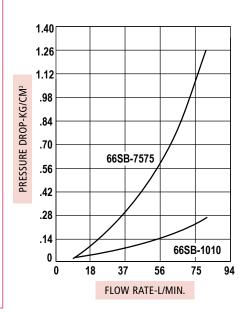
Product #	P	1		В
	in.	mm	in.	mm
66SB-7575	21/2"	64	529/32"	150
66SB-1010	311/32"	85	81/2"	216

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.



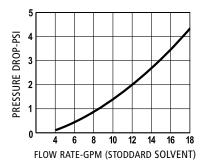


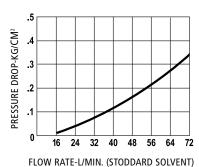
Listings and Certifications



# **OPW 68EZR** 3/4" Dry Reconnectable **Breakaway**

The OPW 68EZR Recconnectable 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 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 68EZR should be installed downstream of the retractor cable.





#### **Materials**

Body: Die-cast zinc, Zamak Protective Sleeves: Zytel Main Seals: Viton®

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.

2-1/2" [64 mm]

Tab

4-1/2"

[114 mm]

# **Ordering Specifications**

December 4.11	<b>6</b> 1		Weight		
Product #	Size	mm	lbs.	kg	
68EZR-7575	3/4" (NPT)	19	1.2	0.54	
68EZR-75RF*	3/4" (NPT)	19	1.2	0.54	

<sup>\*68</sup>EZR-75RF is UL and ULC listed for use in gasoline, ethanol blends up to 25% (E25), diesel, and biodiesel blends up to 20% (B20).

#### **Replacement Parts**

Part #	Description				
211143	Main Seal				
68EZR Series Instruction Sheet Order Number: 208080					

**Listings and** 







**Body:** Die-cast zinc

Protective Sleeves: Impact resistant nylon

Main Seals: Viton®

Main Spring: Stainless steel Guide and Poppets: Acetal

Packed: 20 per Case



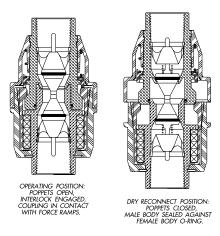
#### **Features**

- 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 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.



# 4-1/2" [114 mm] OPW 66 REC 2-1/2" [64 mm]

# **Ordering Specifications**

Product #	in.	mm	lbs.	kg
66REC-1000	3/4" (NPT)	19	1.2	.54

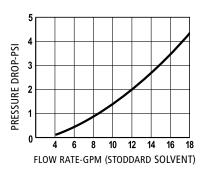
NOTE: See OPW's Website at www.opwglobal.com for product instruction sheets, trouble-shooting guides, how-to-use guide and to view the Do's & Don'ts at the Gas Pump video.

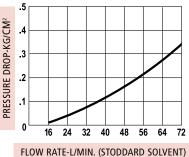




# **OPW 66REC** 3/4" Dry Reconnectable **Breakaway**

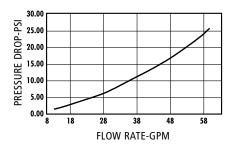
The OPW 66REC is the first dry reconnectable breakaway for the conventional dispensing market. It is designed to be installed on fuel dispensing hoses and will separate when subjected to a designated pull force. The dual valves seat automatically, stopping the flow of fuel and limiting any fuel spillage, 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.

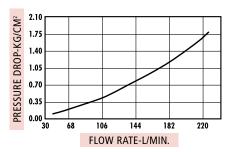




# OPW 66RB 1" Reconnectable Breakaway

The 66RB-2000 Reconnectable Breakaway is designed for use in today's truckstop and high-volume markets. Intended for installation on fuel dispensing hoses, the 66RB will separate at a maximum force of 350 lbs. Upon separation, the integral check valves close, stopping the flow of fuel and limiting any fuel spillage from either hose end. For proper operation on high-hanging hoses, the OPW 66RB must always be installed using a "straightening hose" with a minimum length of 12", such as the OPW 66H. For low hose applications, the 66RB should be installed downstream of the retractor cable.





#### **Materials**

Body: Aluminum Sleeve: HDPE Seals: Viton®

Spring: Stainless steel
Poppet: Aluminum





#### **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 66RB will break away with a pull force of no more than 350 lbs.
- Easily Reconnected after relieving line pressure, simply push coupling halves together until latched. Reconnection force is approximately 15 lbs.
- Protected Coupling and Poppet the breakaway's poppets and sealing surfaces are protected from impact during separation by a durable plastic sleeve.
- Low Pressure Drop the integral check valve design allows for minimal pressure drop for faster, high-volume fill-ups.

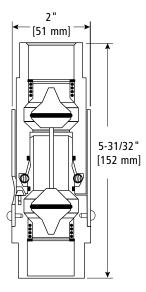
## **Design working pressure**

◆ 50 psi (3.45 bar) maximum pressure.

# **Ordering Specifications**

Product #	in.	mm	lbs.	kg
66RB-2000	1" (NPT)	25	1.14	.52
66RB-20RF*	1" (NPT)	25	1.14	.52

66RB Series Instruction Sheet Order Number: **F-69** \*66RB-20RF is UL Listed for up to 20% Biodiesel.



Listings and Certifications



**Body:** Aluminum Seals: Buna-N and Viton® Weight: See matrix below



#### **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.

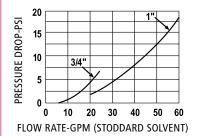
## **Ordering Specifications**

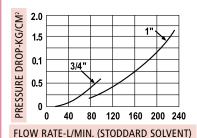
Product #	Connection Size		Weight		Description - Pull Force
Product #	in.	mm	lbs.	kg	Description - Pull Force
66V-0300	3/4" F x 3/4" F (NPT)	19 F x 19 F	0.60	0.27	Valve / No More Than 300 lb.
66V-030RF**	3/4" F x 3/4" F (NPT)	19 F x 19 F	0.60	0.27	Valve / No More Than 300 lb.
66V-0492*	3/4" F x 3/4" 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.
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	Vinyl Scuff Guard Cover
66S-1300	1"	25	0.20	0.10	Vinyl Scuff Guard Cover

- \* 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

# **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: H101833PA 66S Series Instruction Sheet Order Number: H11015PA

## **Listings and Certifications**





#### **OPW 66H Series of Hoses**

The OPW 66H 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**

Due duet #	Lammah	Connection	Connection Size		eight	Description
Product #	Length	in.	mm	lbs.	kg	Description
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

# We don't stop at the nozzle.

We've got you covered with swivels, breakaways and hoses.

# **OPW Swivels Compatibility**









Model	<b>36</b> S	241TPS	<b>20S</b>	45
Up to E10	36S-5080	241TPS-0241	20S-7575	45-5060
Up to E25		241TPS-75RF		
Up to E85		241TPS-0492		
Up to B5	36S-5080 36S-5090	241TPS-0241 241TPS-1000	20S-7575 20S-1010	45-5060 45-5075
Up to B20		3/4" 241TPS-75RF 1" 241TPS-10RF		

# **OPW Breakaway Compatibility**











Model	66 <b>V</b>	66RB	68EZR	66REC	66SB
Up to E10	66V-0300	66RB-2000	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	66RB-2000	68EZR-7575	66REC-1000	66SB-7575 66SB-1010
Up to B20	3/4" 66V-030RF 1" 66V-130RF 1" 66V-135RF	66RB-20RF			

## **OPW Hose Compatibility**



Straightening Hose: 66H-0975 - 9 inch (23 cm)



Curb Hose: 66H-08575 8.5 foot (2.6 m)

Model	9" Whip Hose	9" Low Perm Whip	8.5 ft Curb	8.5 ft Low Perm Curb
Up to E10	66H-0975	66H-0975-LP	66H-08575	66H-08575LP
Up to E25	66H-0975	66H-0975-LP	66H-08575	66H-08575LP
Up to E85				
Up to B5	66H-0975	66H-0975-LP	66H-08575	66H-08575LP
Up to B20	66H-0975	66H-0975-LP	66H-08575	66H-08575LP

E25, B20 Hose Kits Available

Contact Your OPW Distributor or Sales Representative



Body: Zinc/aluminum (44) aluminum nickel-plated (44N)

Spring: Steel

Guide: Ceramic-filled plastic
Adaptor: Steel zinc-plated
Inlet and Outlet Size: 3/4" NPT



#### **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.
- 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.
- 44N-1044 has a 3/4" male thread for connection at the nozzle inlet or at the swivel inlet.

#### **Design working pressure**

◆ 50 psi (3.45 bar) maximum pressure.

# **Ordering Specifications**

Product #	Length	Wei	ght
rioduct #	in.	lbs	kg
44-0044	<sup>3</sup> / <sub>4</sub> F x <sup>3</sup> / <sub>4</sub> F (NPT)	1.2	.54
44N-1044	3/4 F x 3/4 M (NPT)	1.2	.54

44 Series Instruction Sheet Order Number: **H12918PA**44N Series Instruction Sheet Order Number: **H13168PA** 

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

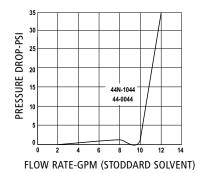




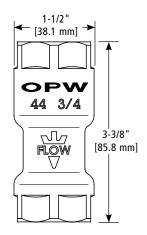
See pages 301-302 for certification number

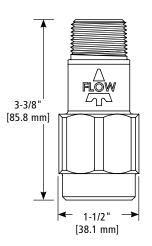
# OPW 44 and 44N Flow Limiters

The OPW 44 and 44N Flow Limiters allow your customers to comply with the EPA 10 gpm maximum flow rate mandate which went into effect July 1, 1996. Both the OPW 44-0044 and 44N-1044 Flow Limiters are designed to control the maximum fuel flow rate to 10 gpm.



#### 44-0044





# **Vacuum-Assist Vapor Recovery Hanging Hardware**



12VW Nozzles	171
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Swivel Breakaway Combos	174
Reconnectable Breakaways	175
Single-Use Breakaways	176
Accessories, Adaptors and Converters	177



**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



#### **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.

#### **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\*.

- Stainless steel insert in spout to last longer then standard aluminum-only spouts.
- Durable lever guard that won't scratch your customers' vehicles made from Duratuff®.
- New hold-open clip spring lasts longer then 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).

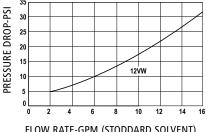
#### **Design working pressure**

- 50 psi (3.45 bar) maximum pressure.
- \* OPW internal lab testing results as of August 2010.

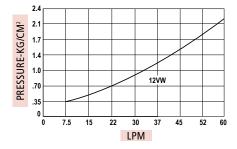
## **OPW 12VW** Vacuum-Assist Nozzles

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



FLOW RATE-GPM (STODDARD SOLVENT)



**Listings and Certifications** 



CARR

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**

<sup>\*</sup> Latest version.

# **Ordering Specifications**

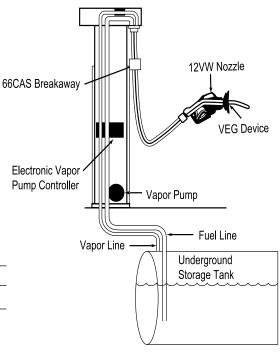
Standard Hand Insulator Color	12VW New Unleaded, with Hold-open Rack	12VW w/ AdMaster™
Green	12VW-0100	
Silver	12VW-0200	
Red	12VW-0300	
Black	12VW-0400	12VW-0400-AD
Blue	12VW-0500	
Gold	12VW-0750	
Yellow	12VW-0900	
Bare	12VW-0000	

#### **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



<sup>\*\*</sup>Approval for 350ml liquid retention requirement.

**Body:** Aluminum

Outlet Adaptor: Aluminum
Inlet Adaptor: Aluminum
Seals: Viton and Buna-N
Weight: 1.5 lbs. each, 0.68 kg



#### **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.

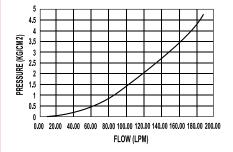
- Compact, Attractive Profile –
   provides a sleek, modern appearance,
   allowing hoses to hang straight down
   instead of at an angle.
- Secure Design not repairable or rebuildable for certainty of operation. Every MFVA is factory assembled and tested.
- Special Swivel Outlet Design male adaptor is specially designed so that tightening of the threaded joint will not inhibit swivel rotation.

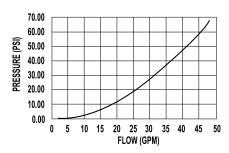
#### **Design working pressure**

50 psi (3.45 bar) maximum pressure.

# OPW MFVA Inverted Swivel

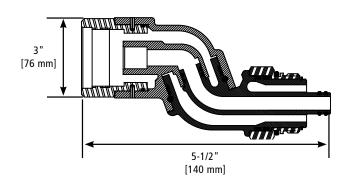
The OPW MFVA Inverted Swivel is designed for vapor recovery applications where easy nozzle and hose handling is important for customer convenience. When attached between the nozzle and the hose, the OPW MFVA two-plane swivel allows your customer a much fuller range of motion in positioning the nozzle 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



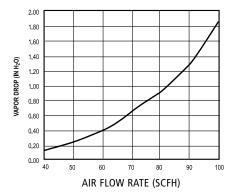
Listings and Certifications



**CARB**California Air Resources Board

# OPW 66ISB Vacuum-Assist Stage II Vapor Recovery Reconnnectable 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



#### **Features**

- UL and ULC listed for use in gasoline, diesel and up to 10% ethanol blends.
   Specific listings available at www.opwglobal.com.
- Breakaway separates at 350 pounds of axial force.
- ◆ 66ISB-5100 comes with vapor poppet.
- Swivel rotation of 360° in both planes.
- Push-back reconnect style.

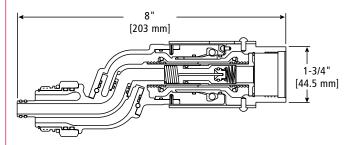
- Easier reconnection at waist height.
- Extends hose life.
- Double O-rings at each joint.

#### **Design working pressure**

◆ 50 psi (3.45 bar) maximum pressure.

# **Ordering Specifications**

Product #	Threads
66ISB-5100	M34 Metric Breakaway



Listings and Certifications



# **CARB**

California Air Resources Board

CARB Certified and UL Listed Per Standard 567.

**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 OPW 660-CAS FREAKAWAY

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.

# **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

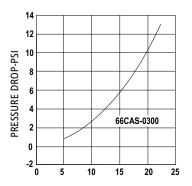
# Listings and Certifications



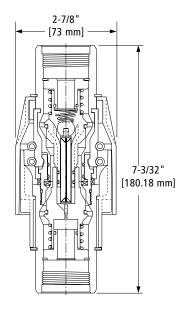
CARB
California Air Resources Board

# 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 300 pounds of axial pull force, the OPW 66CAS Breakaway is also designed to handle line shock better then 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.

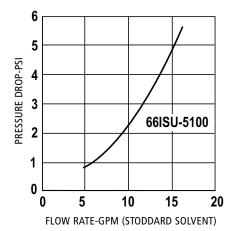


FLOW RATE-GPM (STODDARD SOLVENT)



# OPW 66ISU Vacuum-Assist Stage II Vapor Recovery Breakaways

Single use, vapor poppeted Vacuum-Assist Breakaways available. Designed for those who desire single use breakaway protection on vacuum-assist systems. The 66ISU-5100 comes with a vapor poppet which seals the vapor side during separation.



#### **Materials**

Body: Aluminum
Main Seals: Viton®

Weight: .53 lbs., 0.24 kg



66ISU-5100

#### **Features**

- UL listed for use in gasoline, diesel and up to 10% ethanol blends.
   Specific listings available at www.opwglobal.com.
- Separates at 300 pounds of axial force.
- Disposable, shear-pin design.

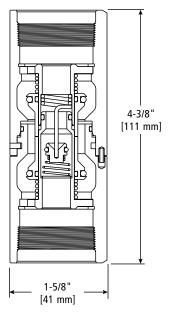
- Durable, lightweight construction.
- Minimum vapor pressure drop.

#### **Design working pressure**

◆ 50 psi (3.45 bar) maximum pressure.

# **Ordering Specifications**

Product #	Threads
66ISU-5100	M34 Metric Breakaway

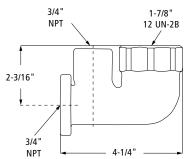


Listings and Certifications



**CARB**California Air Resources Board





#### **Ordering Specifications**

Product #	Description	Application
38CS-0380	Adapts Conventional Dispensers to Balance Vapor Recovery	Low-Hose Single and Dual Dispensers; External Mount

38CS Series Instruction Sheet Order Number: H10754PA

# Listings and

# **CARB**

**Certifications** California Air Resources Board

#### **Materials**

Body: Aluminum Seals: Buna-N Weight: 0.75 lbs., 0.34 kg



# Materials

Body: Aluminum Seals: Buna-N Weight: 0.75 lbs., 0.34 kg



#### **Features**

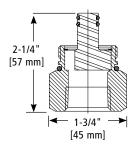
- Lightweight, maintenance free and easy to install.
- Adapts M-34 thread to a 3/4" NPT thread.

#### **Design working pressure**

50 psi (3.45 bar) maximum pressure.

# **Ordering Specifications**

Part No.	Description
VAR75	Vac-assist to 3/4" NPT
	Conventional Converter



#### **Features**

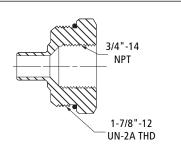
- Lightweight, maintenance free and easy to install.
- ◆ Adapts 1-7/8 12 UN thread to a 3/4"NPT thread

#### **Design working pressure**

50 psi (3.45 bar) maximum pressure.

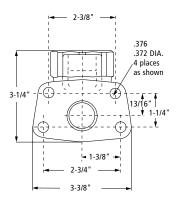
# **Ordering Specifications**

Part No.	Description
28C-0028	Coax Vapor Recovery x <sup>3</sup> / <sub>4</sub> " NPT Bushing



## **OPW 38CS Balance Adaptor**

OPW's 38CS Balance Adaptor line makes conversion from standard to balance easier and more user-friendly.



# 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.

# **Balance Vapor Recovery Hanging Hardware**



• Reconnectable Breakaways .......179



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



#### **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**

### **Ordering Specifications**

Product #	Description

66CLP-5100 Vapor Poppeted Reconnectable Balance Breakaway

66CLP Instruction Sheet Order Number: F-70

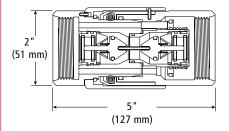
#### **Replacement Parts**

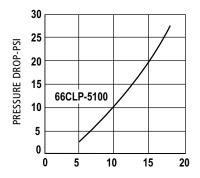
Product #	Description
204870	O-ring
204872	Spring
204811	Outer Cover

50 psi (3.45 bar) maximum pressure.

#### **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.





FLOW RATE-GPM (STODDARD SOLVENT)

#### **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

# Industrial **Products**



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Reconnectable Breakaways	
Hoso Swivols	



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



- Lowest Overall Cost of Ownership reliable, long lasting design based on proven OPW quality platform and industry standard-setting technology
- DEF Compatible all materials of construction are 100% 3rd party tested and approved for DEF compatibility
- 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

#### **Design Working Pressure**

◆ 50 PSI (3.45 bar) maximum pressure

NOTE: The OPW 19DEF Series Nozzles are for commercial fleet applications only and are not UL Listed for gasoline dispensing facilities.

# 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.

As the global standard for more than a century, OPW nozzles are built to perform better and last longer\* than any other brand to deliver unprecedented peace-of-mind, ROI, and performance. 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.

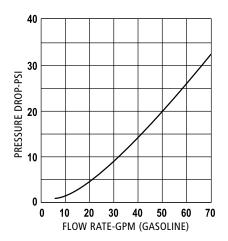
\* OPW internal lab cycle testing results with DEF as of August 2013.

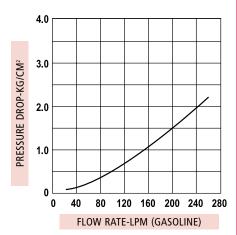
#### **Ordering Specifications**

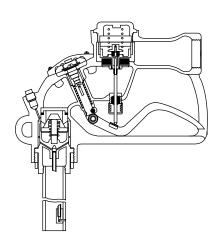
Product #	Description
19DEF-0500SS	Nozzle - 19mm spout; ¾" Female NPT inlet connection, blue hand warmer
19DEF-050LSS	Nozzle - 19mm spout; ¾" Female BSPP inlet connection, blue hand warmer
Hose Adaptors	(Sold Separately).
19DM-0100	$3\!4\text{"}$ MNPT to 1" MNPT - Connecting nozzle to 1" NPT Female hose
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
19DML-0075	¾" MBSPP to ¾" MBSPP - Connecting nozzle to ¾" BSPP Female hose

#### **OPW 1290 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



#### **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

Inda Thursd

#### **Ordering Specifications**

Product #	Description	iniet inread				
Froduct #	Description	in.	mm	lbs.	kg	
1290-0050	New	11/2"	38	6.8	3.1	
1290-0055	Rebuilt	11/2"	38	6.8	3.1	
1290G-0050	New	11/2"	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 #	0	.D.	Lei	ngth	We	ight
Product #	in.	mm	in.	mm	lbs.	kg
5D-0125	13/8"	35	81/2"	215	1.5	0.68
5D-0180	13/8"	35	18"	482	2	0.90

1290 Series Instruction Sheet Order Number: H09238PA

**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**

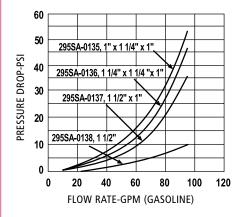
Product #	Nozzle	
295KLG-0300	295SA-0135, 0136, 0137, 295SAC-0156, 0157 Red	
295KLG-0350	295SA-0138, 275SAC-0158 Red	
295KLG-0400	295SAJ-0200, 295SACJ-0200 Black	

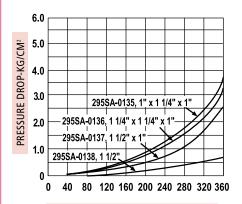
All lever guard kits include new lever sub-assembly. 295 Series Instruction Sheet Order Number: **H09237PA** 

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.

#### **Overwing Aircraft Nozzles**

295SA – AVGAS 295SAJ – Jet Fuel





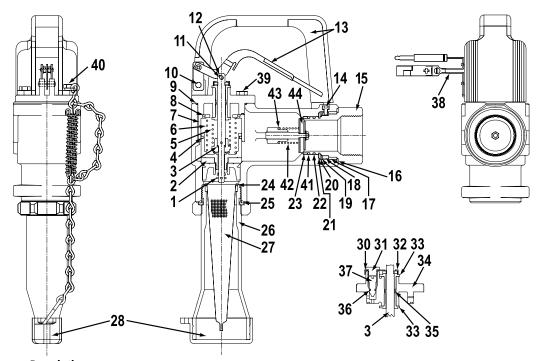
FLOW RATE-L/MIN. (GASOLINE)

#### **Ordering Specifications**

Inle	t Thi	ead	Spout O.D		
in.	mm	lbs.	kg	in.	mm
1	25	4.60	2.10	1	25
11/4	32	4.50	2.00	1	25
11/2	38	4.50	2.00	1	25
11/2	38	5.10	2.30	15/8	41
11/2	38	5.60	2.50	<b>2</b> <sup>2</sup> / <sub>3</sub>	54
11/4	32	4.50	2.00	1	25
11/2	38	4.50	2.00	1	25
11/2	38	5.15	2.30	15/8	41
11/2	38	5.65	2.60	<b>2</b> <sup>2</sup> / <sub>3</sub>	54
	in.  1 11/4 11/2 11/2 11/2 11/4 11/2 11/2	in. mm  1 25 11/4 32 11/2 38 11/2 38 11/2 38 11/4 32 11/2 38 11/2 38	1 25 4.60 11/4 32 4.50 11/2 38 4.50 11/2 38 5.10 11/2 38 5.60 11/4 32 4.50 11/2 38 4.50 11/2 38 5.15	in. mm lbs. kg 1 25 4.60 2.10 11/4 32 4.50 2.00 11/2 38 4.50 2.00 11/2 38 5.10 2.30 11/2 38 5.60 2.50 11/4 32 4.50 2.00 11/2 38 4.50 2.00 11/2 38 5.15 2.30	in. mm lbs. kg in.  1 25 4.60 2.10 1  11/4 32 4.50 2.00 1  11/2 38 4.50 2.00 1  11/2 38 5.10 2.30 15/8  11/4 32 4.50 2.00 1  11/4 32 4.50 2.00 1  11/2 38 4.50 2.00 1  11/2 38 5.15 2.30 15/8

\*Check Valve

#### Replacement Parts - OPW 295SA/295SAC & 295SAJ



Key	Part #	Description	295SA-0135 inlet/ spout 1" x 1"	295SA-0136 & 295SAC-0156 inlet/ spout 1'/4" x 1"	295SA-0137 & 295SAC-0157 inlet/ spout 1'/2" x 1"	295SA-0138 & 295SAC-0158 inlet/ spout 1'/2" x 1'/2"	295SAJ-0200 & 295SACJ-0200 inlet/ spout 1'/2" x 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	H05000M	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	•	•	•		

<sup>\*</sup> Replacement part for nozzles built after 08/1998. Part is unavailable for nozzles built before this date.



<sup>\*\*</sup> Includes 295SRK-0001 or 295SRK-0002 and contact ring.

#### Replacement Parts-OPW 295SA/SAC & SAJ Aircraft Nozzles

19	Key	Part #	Description	295SA-0135 inlet/ spout 1" x 1"	295SA-0136 & 295SAC- 0156 inlet/spout 1 <sup>1</sup> / <sub>4</sub> " x 1"	295SA-0137 & 295SAC- 0157 inlet/spout 1 <sup>1</sup> / <sub>2</sub> " x 1"	295SA-0138 & 295SAC- 0158 inlet/spout 1 <sup>1</sup> / <sub>2</sub> " x 1 <sup>1</sup> / <sub>2</sub> "	295SAJ-0200 & 295SACJ-0200 inlet/ spout 11/2" x 11/2"
20   H08882M   Lock Ring	19	H08881M	Thrust Bearing	•	•	•		
10	19	H08889M	Thrust Bearing				•	•
21   H09365M   Retaining Ring	20	H08882M	Lock Ring	•	•	•		
21   H09366M   Retaining Ring	20	H08890M	Lock RIng				•	•
Mathematical Process   Mathematical Process	21	H09365M	Retaining Ring	•	•	•		
H12320M	21	H09366M	Retaining Ring				•	•
100   100	22	H12319M	O-Ring, Buna-N	•	•	•		
100   100	22	H12320M	O-Ring, Buna-N				•	•
24         H06026M         O-Ring         •           24         H07670M         O-Ring         •           25         H075297M         O-Ring         •           25         H07766M         O-Ring         •           25         H07766M         O-Ring         •           26         110458M         O-Ring         •           26         2975A-9050         Spout S/A         •           26         2975A-9060         Spout S/A         •           26         2975A-9060         Spout S/A         •           26         696J-7010         Spout S/A         •           27         1905-7063         Strainer         •           27         153J-0910         Strainer         •           27         153J-0910         Strainer         •           28         H10387         Cap & Chain S/A         •           28         H10388         Cap & Chain S/A         •           28         H10388         Cap & Chain S/A         •           29         H09212         Body Cap S/A**         •           29         H09213         Body Cap S/A**         •           30         H05	23	H08884M	Bearing	•	•	•		
24       H07670M       O-Ring       •         24       H11499M       O-Ring       •         25       H05297M       O-Ring       •         25       H07766M       O-Ring       •         25       H10458M       O-Ring       •         26       2975A-9050       Spout S/A       •         26       2975A-9060       Spout S/A       •         26       6961-7010       Spout S/A       •         27       1905-7063       Strainer       •         27       1533-0910       Strainer       •         27       1531-0100       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       H0506	23	H08892M	Bearing				•	•
24       H11499M       O-Ring       •         25       H05297M       O-Ring       •         25       H07766M       O-Ring       •         25       H10458M       O-Ring       •         26       2975A-9050       Spout S/A       •         26       2975A-9060       Spout S/A       •         26       696J-7010       Spout S/A       •         27       1905-7063       Strainer       •         27       153-0910       Strainer       •         27       153-0910       Strainer       •         28       H10387       Cap & Chain S/A       •         28       H10388       Cap & Chain S/A       •         28       H10388       Cap & Chain S/A       •         29       H09212       Body Cap S/A**       •         29       H09212       Body Cap S/A**       •         29       H09213       Body Cap S/A**       •         30       H05135M       Retainer       •         31       H08441R5       Screw       •       •         32       H05087M       Felt Wiper       •       •         34       C021	24	H06026M	O-Ring	•	•	•		
25         H05297M         O-Ring         •           25         H07766M         O-Ring         •           26         2975A-9050         Spout S/A         •           26         2975A-9060         Spout S/A         •           26         696J-7010         Spout S/A         •           27         190S-7063         Strainer         •           27         153-0910         Strainer         •           27         153-0910         Strainer         •           28         H10387         Cap & Chain S/A         •           28         H10388         Cap & Chain S/A         •           28         1906-1-0100         Cap & Chain S/A         •           29         H09212         Body Cap S/A**         •           29         H09213         Body Cap S/A**         •           29         H09213         Body Cap S/A**         •           30         H05135M         Retainer         •           31         H08441RS         Screw         •         •           32         H05087M         Felt Wiper         •         •           33         H05063M         Bushing         •	24	H07670M	O-Ring				•	
25   H07766M   O-Ring	24	H11499M	O-Ring					•
25   H07766M   O-Ring	25	H05297M	O-Ring	•	•	•		
25		H07766M	O-Ring				•	
26       2975A-9060       Spout S/A       •         26       696J-7010       Spout S/A       •         27       190S-7063       Strainer       •         27       153-0910       Strainer       •         28       H10387       Cap & Chain S/A       •         28       H10388       Cap & Chain S/A       •         28       H909212       Body Cap 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       1		H10458M						•
26       2975A-9060       Spout S/A       •         26       696J-7010       Spout S/A       •         27       190S-7063       Strainer       •         27       153-0910       Strainer       •         28       H10387       Cap & Chain S/A       •         28       H10388       Cap & Chain S/A       •         28       H909212       Body Cap 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       •       •       •	26	297SA-9050	Spout S/A	•	•	•		
26       696J-7010       Spout S/A       •         27       190S-7063       Strainer       •         27       153-0910       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**       •         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       •       • <td< td=""><td>26</td><td>297SA-9060</td><td></td><td></td><td></td><td></td><td>•</td><td></td></td<>	26	297SA-9060					•	
27       190S-7063       Strainer       •         27       153-0910       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       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       •       •       •								•
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       •       •	27	190S-7063	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       •       •	27	153-0910	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**       •         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       •       •	27	153J-0100	Strainer					•
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       •       •       •	28		Cap & Chain S/A	•	•	•		
28       296CJ-0100       Cap & Chain S/A       •         29       H09212       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       •       •	28	H10388					•	
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       •       •       •	28							•
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       •       •       •			<u>·</u>	•	•	•		
30       H05135M       Retainer       •	29	H09213	Body Cap S/A**				•	•
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       •       •       •				•	•	•	•	•
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       •       •	31		Screw	•	•	•	•	•
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       •       •       •			Felt Wiper	•	•	•	•	•
34       C02115A       Cap       •			<u>'</u>	•	•	•	•	•
34       C02117A       Cap       •       •       •         35       H12707M       O-Ring       •       •       •       •         36       H12705M       O-Ring       •       •       •       •         37       H04825M       Adj. Screw       •       •       •       •         38       190WM-8001       Ground Wire S/A       •       •       •				•	•	•		
35       H12707M       O-Ring       •       <							•	•
36         H12705M         O-Ring         •         <			<u>'</u>	•	•	•		
37         H04825M         Adj. Screw         •         •         •         •           38         190WM-8001         Ground Wire S/A         •         •         •         •				•	•	•	•	•
38 190WM-8001 Ground Wire S/A • • • •				•	•	•	•	•
				•	•	•	•	•
40 H06045M Screws (2 req'd) • • • •								
41 H13776M O-Ring, Viton® • •								
41 H13775M O-Ring, Viton® • • •				•	•	•		

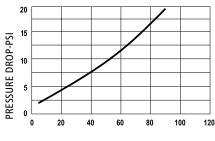
<sup>\*\*</sup> Body Cap sub-assembly includes parts 30-37.

#### Replacement Parts - OPW 295SAC & 295SACJ Only

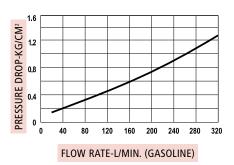
Key	Part #	Description	295SAC-0156	295SAC-0157	295SAC-0158	295SACJ-0200
42	H07595M	Spring SST	•	•		
42	H07593M	Spring SST			•	•
43	H07613M	Washer, nylon	•	•	•	•
44	H09214	Poppet S/A	•	•		
44	H09215	Poppet S/A			•	•

#### OPW 295AF Aircraft Nozzles

#### **For Overwing Aircraft Service**



FLOW RATE-GPM (GASOLINE)



#### **Replacement Parts**

Part #	Description
153AF-0100	100 Mesh Strainer
190WF-8002	Ground Wire S/A w/ Dust Cap
C03420AG	Protector Ring
C03422	Dust Cap
297AF-9070	11/2" 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 #	iniet	ınread		
riouuct #	in.	mm	lbs.	kg
295AF-0100	11/2"	38	6.40	2.90

Gov't. Nat'l. Stock #: 4930-01-293-4472

295 Series Instruction Sheet Order Number: H09237PA

**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 192)

#### **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**

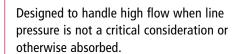
◆ 50 psi (3.45 bar) maximum pressure

#### **Ordering Specifications**

Duadout #	Inlet	Inlet Thread		Spout Diameter		
Product #	in.	mm	in.	mm	lbs.	kg
190-0112	1"	25	11/4"	32	2.3	1.0
190-0113	11/4"	32	11/4"	32	2.3	1.0
190-0114	11/2"	38	11/2"	38	3.0	1.4
190-0115	2"	51	2"	51	5.8	2.6
190G-B104	11/2"	38	11/2"	38	5.1	2.3

w/ Spout and Ground Wire

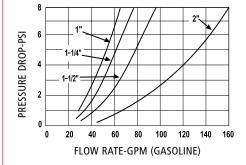
Gov't. Nat'l. Stock #: 4930-01-360-5540

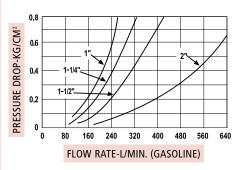


**OPW 190 High-Flow Nozzles** 

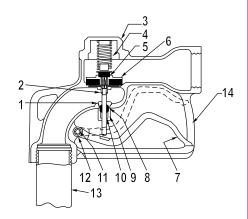
For High-Flow, Bulk Fuel Oil

**Delivery Service** 





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	Сар	•	•	•		
3	H09601AH	Сар				•	
3	H11592AH	Сар					•
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 S	hown						
	296CA-4000	Dust Cap		,	,	,	•
	153-0910	Strainer		,	,	,	•

**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 192)

#### **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.

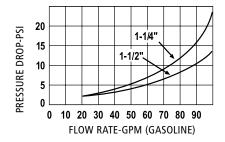
- Built-In Swivel eliminates twisting and kinking of the hose. This swivel is hard-coated aluminum and has full-bearing surfaces.
- Built-In Check Valve prevents hose drainage after pump is turned off.
- Vinyl-Coated Lever insulates fingers against cold.
- Easily Replaced Spout the spout is easily threaded 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.

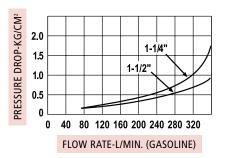
#### **Design working pressure**

◆ 110 psi (7.58 bar) maximum pressure

# OPW 295SC High-Flow 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

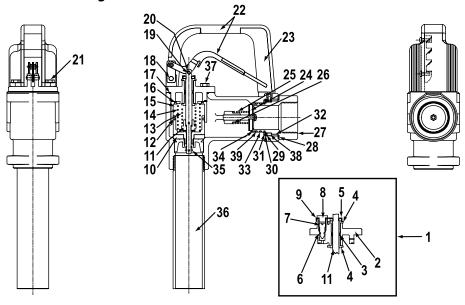
295 Series Instruction Sheet Order Number: **H09237PA** 

#### **Ordering Specifications**

Product #	Inlet	Thread		
Floudet #	in.	mm	lbs.	kg
295SC-0139	11/4"	32	3.75	1.7
295SC-0141	11/2"	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	1¹/₄" 11¹/₂" NPT	1¹/2" 11¹/2" NPT
1	H09212	Cap S/A	•	
1	H09213	Cap S/A		•
2	C02115A	Сар	•	
2	C02117A	Сар		•
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 74 111/2" NPT	11½" 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*	•		

Description

11/4"

11/2"

<sup>\*</sup> Replacement part for nozzles built after 08/1998.

Parts are unavailable for nozzles built prior to this date.

<sup>\*\*</sup> Includes 295SRK-0001 or 295SRK-0002 and contact ring.

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 192)

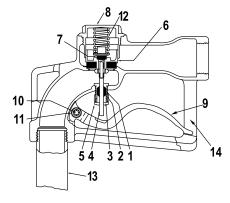
#### **Features**

- 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 11/4" and 11/2" male connections.

#### **Design working pressure**

50 psi (3.45 bar) maximum pressure



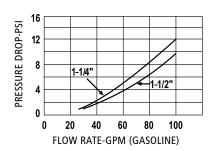
#### **Ordering Specifications**

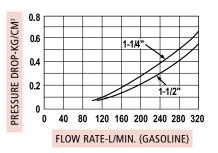
Product #	in.	mm	lbs.	kg
210-0104	11/4"	32	3.95	1.8
210-0105	11/2"	38	4.40	2.0

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.

#### **OPW 210 High-Flow Nozzles**

## For High-Flow, Bulk Fuel Oil Delivery Service





#### **Replacement Parts**

Key	Part #	Descrption
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	Сар
9	H00999M	Lever
10	H08165RE	Pin
11	H08163M	Push Nut (2 required)
12	H00136M	Spring
13	297-9020	Spout (optional) - 1¹/₄" aluminum
13	297-9030	Spout (optional) - 11/2" aluminum
13	296-0040	Spout (optional) - 11/4" brass
13	296-0060	Spout (optional) - 11/2" brass
14	C04698M	Rack
14	H14105M	Screw

<sup>\*</sup> Replacement part for nozzles built after 04/1998. Part is unavailable for nozzles built before this date.



#### **Ordering Specifications**

December 4	Leng	yth	Hand On	
Product #	ft.	m	Used On	
190WM-8001	6'	1.83	295SA	
190WF-8002	6'	1.83	295AF	

#### **Materials**



#### **Ordering Specifications**

Product #	in.	mm	Used On
153-0910	11/2"	38	190G, 295SA
153J-0100	11/2"	38	295SAJ
190S-7063	1"	25	295SA Series w/ 1" Spout
153AF-0100	11/2"	38	295AF

#### **Materials**





296CJ

#### **Ordering Specifications**

	_			
Product #	Size		Spout	Used On
	in.	mm		
296CA-4000	15/8"	41	296	190 1"
296CA-4005	1 <sup>5</sup> /8"	41	296	11/4", 11/2"
20001.0100	11/2"	20	696J	295SAJ
296CJ-0100	I '/2	38	only	11/2"
H10387	1"	26	297SA 1"	295SA
H10388	11/2"	38	297SA 1 <sup>1</sup> / <sub>2</sub> "	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.

#### **Spouts Ordering Specifications**

Product #	Size	•	0.D.		Len	Length		h Weight Used On		Docarintion
Product #	in.	mm	in.	mm	in.	mm	lbs.	kg	usea on	Description
296-0040	1¹/₄ (NPT)	32	13/8	35	9	229	0.90	0.41	190-0113; 210-0104; 190-0112	Brass
296-0060	1 <sup>1</sup> / <sub>2</sub> (NPT)	38	13/8	35	9	229	0.98	0.45	190-0114; 210-0105	Brass
296-0080	1 <sup>1</sup> / <sub>2</sub> (NPT)	38	1 <sup>5</sup> /8	41	9	229	1.05	0.48	190-0114; 210-0105	Brass
297-9020	1¹/₄ (NPT)	32	1 <sup>21</sup> / <sub>32</sub>	42	8	203	0.50	0.23	190-0113; 210-0104; 295SC-0139; 190-0112	Aluminum
297-9030	1 <sup>1</sup> / <sub>2</sub> (NPT)	38	129/32	48	8	203	0.60	0.27	190-0114; 210-0105; 295SC-0141	Aluminum
297-9040	2 (NPT)	51	23/8	60	8	203	0.80	0.36	190-0115	Aluminum
297SA-9050	1 <sup>1</sup> / <sub>4</sub> (NPSM)	32	1	25	9	229	0.60	0.27	295SA-0135, 0136,0137 & 295SAC-0156	Aluminum
297SA-9060	1 <sup>1</sup> / <sub>2</sub> (NPSM)	38	<b>1</b> 5/8	41	7	178	0.80	0.36	295SA-0138, 295SAC-0157, 295SAC-0158	Aluminum
696J-7010	1 <sup>1</sup> / <sub>2</sub> (NPSM)	38	<b>2</b> <sup>2</sup> / <sub>3</sub>	54	71/4	184	0.80	0.36	295SAJ-0200	Aluminum



**Body:** Aluminum

Main Stem: Aluminum

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

#### 18.00 16.00 12.00 12.00 10

**OPW RF400 Manual Utility** 

For General Utility Farm Usage

The OPW RF400 nozzle is designed for

use in non retail, commercial, industrial

and agriculture use where an automatic

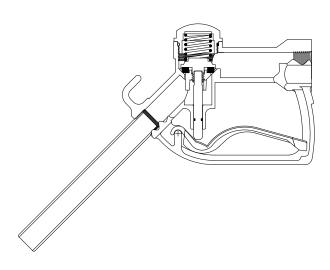
Farm Nozzle

nozzle is not needed.

	18.00		т —	Г		$\overline{}$		_	_	$\neg$		$\neg$
	16.00			-		+		-	-	-		_
$\subseteq$	14.00	_			-	+	-	_	_	٠.	4	_
(PS	12.00	_				+	_	_	+	$_{\mathscr{K}}$		_
Ä	10.00					_	_	_	$\downarrow$	4	_	_
PRESSURE (PSI)	8.00	_	_	_		+		_/	4	+	_	_
ESS	6.00					+		4	+	+		_
PR	4.00					$\bot$	4		_	_	_	_
	2.00				$\vdash$	1	_		_	_	_	_
	0.00											
		0	5 1	10 ′	15	20	25	30	35	40	45	50
					FL	.OW	(G	PM)				

#### **Ordering Specifications**

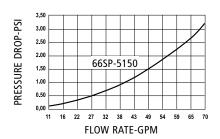
Product #	Description	Inlet 1	Thread	Spout Diameter		
riouuct #	Description	in.	mm	in.	mm	
RF400-75	³/4", leaded spout	<sup>3</sup> / <sub>4</sub>	19	<b>1</b> <sup>5</sup> / <sub>16</sub>	23	
RF400-75P	3/4", unleaded spout	<sup>3</sup> / <sub>4</sub>	19	<b>1</b> <sup>3</sup> / <sub>16</sub>	20	
RF400-10	1", leaded spout	1	25	<b>1</b> <sup>5</sup> / <sub>16</sub>	23	
RF400-10P	1", unleaded spout	1	25	<b>1</b> <sup>3</sup> / <sub>16</sub>	20	

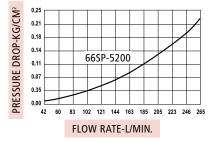


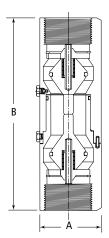
#### OPW 66SP High-Volume Breakaways

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



#### **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, red, anodized-aluminum 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			Α	В	
Floudet #	illet illieau	lbs.	kg	in.	mm	in.	mm
66SP-5150	11/2" (NPT)	1.93	0.87	21/4"	57	75/8"	194
66SP-5200	2" (NPT)	3.80	1.72	31/2"	89	73/4"	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

## Listings and Certifications



**Body:** Aluminum **Adaptor:** Zinc

Aluminum

Seals: Buna-N O-Ring, Viton® O-Ring

Bearings: Nylon UL Listed MH4542

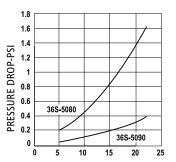
# 365-5080

#### **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.



FLOW RATE-GPM (STODDARD SOLVENT)

#### **Materials**

Body: Electroless nickel-plated

Bearings: Molded plastic

Seals: Buna-N O-Ring,

felt dust seal, Viton® O-Ring



#### **Ordering Specifications**

Product #	Inlet T	hread	Weight		
	in.	mm	lbs.	kg	
25-0110	1 <sup>1</sup> / <sub>4</sub> " (NPT)	32	0.95	.43	
25-0120	11/2" (NPT)	38	1.06	.48	
25C-0130*	1 <sup>1</sup> / <sub>4</sub> " (NPT)	32	0.95	.43	

<sup>\*</sup>With Check Valve

#### **OPW 2" Single-Plane Hose Swivel**

Durable brass construction with high flow rate.



#### **Materials**

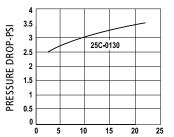
**Body:** Brass

Seals: Buna-N O-Rings

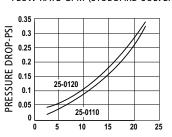
Product #	in.	mm	lbs.	kg
2-0055	2	50.8	1	.45

#### **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.



FLOW RATE-GPM (STODDARD SOLVENT)



FLOW RATE-GPM (STODDARD SOLVENT)

#### **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", 11/4" NPT
295SRK-0002	25 and 295 Series 11/2" 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.

# **Hose Retractors**



- Spring Balance Hose Retractors......197 199



Housing: Cast aluminum
Cable: Black polyester
Post: Aluminum

Nozzle Hook and Hood Kit Not Sold by OPW.

#### **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 POMECO 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** 

# POMECO 102 Spring Balance Single Hose Retractors

POMECO 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 POMECO 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.



**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		
	Mounting Method	Claimp Fits	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			Clamp Fits				Weight		
Number	Description	Mounting Method	Hose O.D.		Hose I.D.		We	igiit	
Number			in.	mm	in.	mm	lbs.	kg	
6102-1000	Standard Duty Retractor Box, 2 -10 lb retraction strength	Overhead Crossbar/Vertical Post	verhead 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	13/8"	35	1"	25	7	3.2	
6102-6000		Overhead Crossbar	11/32"	26	5/8" or 3/4"	16 or 19	7	3.2	
6102-8000		Overhead Crossbar	1"	25	5/8 "	16	7	3.2	

<sup>\*</sup>POMECO recommends using CO5238M, CO5261M 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

Model Number	Hose Clamp Size †
PB-1396	Standard 13/8" O.D. Hose (1" I.D.)
PB-1394	Standard 11/8" O.D. Hose (3/4" I.D.)
PB-1375	Standard 1 <sup>1</sup> / <sub>32</sub> " O.D.Hose ( <sup>5</sup> / <sub>8</sub> " or <sup>3</sup> / <sub>4</sub> " I.D.)
PB-1373	Standard 1" O.D. Hose (5/8" I.D.)
PB-1344	Balanced Coaxial, Goodyear Premier

<sup>†</sup> Other sizes available upon request

#### **Options Replacement Parts**

Model Number	Hose Clamp Size
C05238M	Post Kit, 39"(99 cm), 11/8" x 2"
C05261M	Post Kit, 78"(198 cm), 11/6" 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)
	·

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.

18/ - ! -- |- 4

#### **Ordering Specifications**

	(	Hoses Per	Weight		
Model Number	Manufacturer/Dispenser	Side***	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	

<sup>\*</sup>Specify dispenser model and serial number when ordering

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

#### POMECO 102 Spring Balance MPD Hose Retractor Packages

POMECO 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 POMECO 102 is a California Air Resources Board (CARB) certified Stage II component for use with MPDs as per Executive Order G-70-52-AM.





**Hose Clamp** 

#### **Ordering Specifications**

#### **Hose Clamps**

Model Number	Hose Clamp Size t
PB-1396	Standard 13/8" O.D. Hose (1" I.D.)
PB-1394	Standard 11/8" O.D. Hose (3/4" I.D.)
PB-1375	Standard 1 <sup>1</sup> / <sub>32</sub> " O.D.Hose ( <sup>5</sup> / <sub>8</sub> " or <sup>3</sup> / <sub>4</sub> " I.D.)
PB-1373	Standard 1" O.D. Hose (5/8" I.D.)
PB-1344	Balanced Coaxial, Goodyear Premier
t Other sizes	available upon request

<sup>\*\*\*</sup>Hose clamps must be ordered separately for MPD models

#### 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") Retractor Foot Top and Pulley Housing Hose Clamp Hose Clamp Sliding Bracket

#### **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**

Clamp Fits Height					W.	Weight					
Model #	Hose Configuration	Hose	Length	Hose	0.D.	Hose	e I.D.	пе	ignt	we	igiit
		ft.	m	in.	mm	in.	mm	in.	cm	lbs.	kg
6100-4000	Conventional	12-14	3.7- 4.3	13/8	35	1	25	79	201	33	15.0
6100-5000	Conventional	15-18	4.6 - 5.5	13/8	35	1	25	92	234	38	17.2
6100-6000	Conventional	12-14	3.7 - 4.3	1 1/32	26	5/8 or 3/4	16 or 19	79	201	30	13.6
6100-7000	Conventional	15-20	4.6 - 6.1	1 1/32	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	(Hos	e Clam	p Not In	cluded)	79	201	33	15.0
6100-AGLC	Coaxial	11-13	3.4 - 4.0	(Hos	e Clam	p Not In	cluded)	79	201	26	11.8
6100-AGBR	Coaxial w/ Breakaway	11-13	3.4 - 4.0	(Hos	e Clam	p Not In	cluded)	79	201	31	14.1
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100 Series Counterweight Hose Retractor Instruction Sheet Order Number: **H15852PA** 

See page 199 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		rweight ngth	Weight		
Ture # Description		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