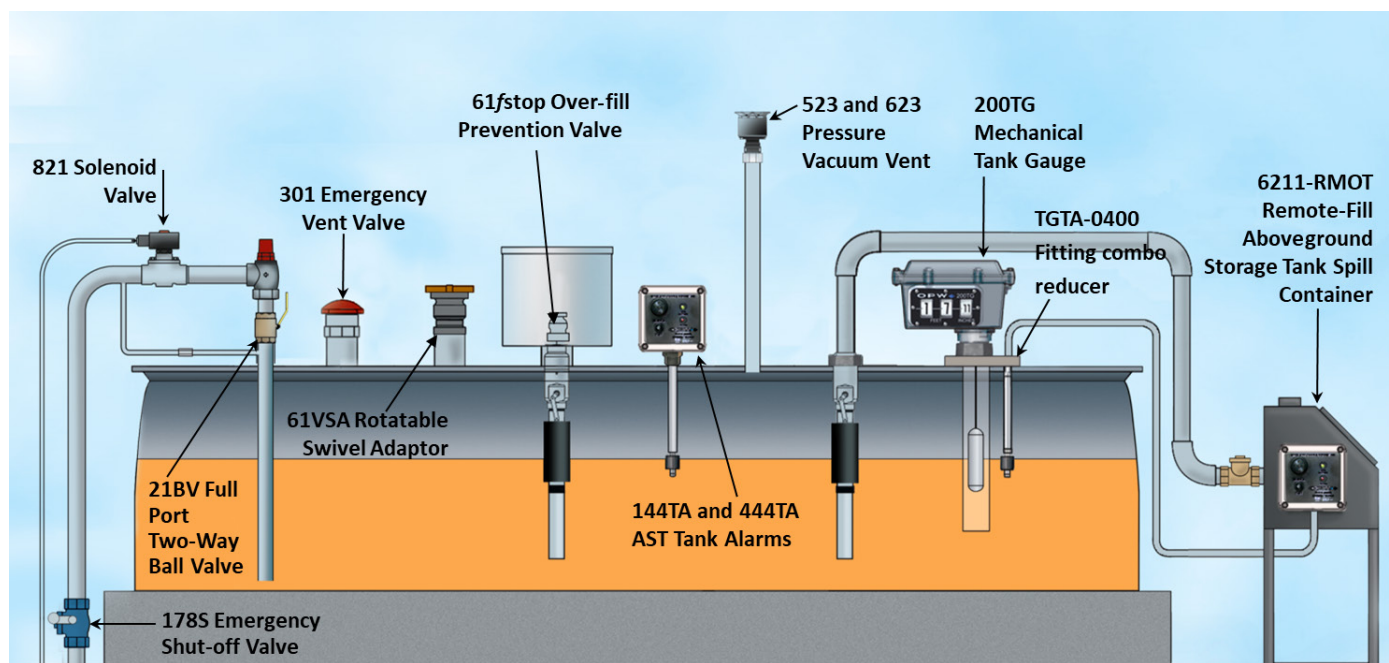


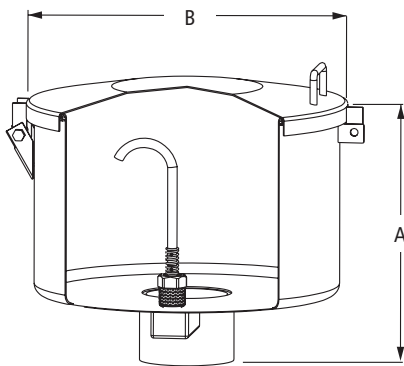
Aboveground Storage Tank Equipment



• Spill Containment	201 - 202
• Overfill-Prevention	203 - 204
• Fuel-Delivery Coupler/Accessories	205
• Mechanical Tank Gauges	206
• Tank Alarms	207
• Tank Venting	208 - 211
• Anti-Siphon Valves	212
• Solenoid Valves	213
• Emergency Shut-Off Valves	214

POMECO/OPW 6221 AST Direct-Fill Aboveground Storage Tank Spill Containers

POMECO/OPW Direct-Fill AST Spill Containers are designed to prevent spilled product from entering soil near the fill and vapor-return riser connections on an aboveground storage tank during normal tank-filling operation. The spill containers catch spillage to help prevent soil contamination and groundwater pollution. POMECO/OPW Direct-Fill AST Spill Containers thread on the top of an aboveground tank and allow for drainage of spilled product back into the tank.



6221AST

Dimensions

Model #	Capacity		A		B	
	gal.	liter	in.	cm	in.	cm
6221	7	26.5	14½	37	17	43
	3.5	13.2	9¼	24	17	43

Features

- ◆ **Easy Installation** – 4" NPT threaded base screws directly to the tank riser pipe. No further adjustments are needed
- ◆ **Integral Drain Valve** – allows high-speed drainage of spilled product back into the tank
- ◆ **Capacity** – available in 7-gallon (26.5-liter) container capacity. Larger 7-gallon capacity spill containers provide additional clearance for 61 fSTOP Overfill-Prevention Valves (3.5 gallon-221 only)
- ◆ **Rain-Shedding Cover Design** – hooded cover design helps prevent water or snow entry by extending the lip of the cover over the body of the spill container
- ◆ **Welded-Hinge, Lockable Hatch** – the cover includes a provision for a padlock and a welded-hinge assembly for added security
- ◆ **12-Gauge Epoxy Powder-Coated Construction** – heavy-duty materials, compatible with hydrocarbons, for long service life and added security



6221AST

- ◆ **6221AST Spun-Steel Design** – spun-steel construction provides a lightweight, one-piece design for easy installation and a clean, sleek appearance on aboveground tanks.
- ◆ **All Models Are ULc-Listed** – clearly labeled to identify the listing



Model 06221 Series only.

62121-AST Spill Containers

Instruction Sheet Order Number: 202207

Ordering Specifications:

CARB APPROVED AST EQUIPMENT

Product #	Description	Liters	lbs.	kg
6221-ASTW32	3.5 gallon, 2.0" NPT White - No Drain Valve	13.2 liter, 4.0" NPT	18	8.16
6221-ASTW34	3.5 gallon, 4.0" NPT White - No Drain Valve	13.2 liter, 4.0" NPT	19	8.61
6221-ASTW72	7 gallon, 2.0" NPT White	26.5 liter, 2.0" NPT	20	9.07
6221-ASTW74	7 gallon, 4.0" NPT White	26.5 liter, 4.0" NPT	25	11.33

Features

- ◆ **Easy Installation** – a 4" flexible boot on the back panel allows for a quick, simple connection to the remote-fill or vapor lines. Optional reducer inserts are available to accommodate 3" and 2" piping connections
- ◆ **Models to Accommodate Various Fill-Pipe Configurations** – available in 15-, 20- and 30-gallon container capacity. Smaller 15-gallon models are designed for a single-fill or vapor-return connection. Larger 20- and 30-gallon models accept both fill and vapor-return piping in a dual-port configuration. The 30-gallon model will accommodate both fill and vapor-return piping in a single-port configuration and allow the use of 3" Dry Disconnects (OPW 1611AN and 1711D) in a dual-port configuration
- ◆ **Rain-Shedding Cover Design** – hooded cover design helps prevent water or snow entry by extending the lip of the cover over the body of the spill container
- ◆ **12-Gauge Epoxy Powder-Coated Steel or 304 Stainless-Steel Containment Box** – heavy duty materials, compatible with hydrocarbons, for long service life and added security



- ◆ **Welded-Hinge, Lockable Hatch** – cover includes a provision for a padlock and a welded-hinge assembly for added security
- ◆ **Easy Product Drainage** – lockable ball valve drain provides for quick and easy product removal
- ◆ **Height Adjustable** – adjustable legs enable the spill container to be set at a variety of heights, from 16½" to 30". Each leg is independently adjustable to account for uneven ground conditions
- ◆ **Custom Sizes Available Upon Request**



Ordering Chart

6	R –				
211	15	0	B2	L	
211SS	20	1	B3	LD	
	30	2	B4	N	
			N	ND	

211 – 12-Gauge Powder-Coated Steel Construction

211SS – Stainless-Steel Construction

15 – 15-Gallon Capacity

20 – 20-Gallon Capacity

30 – 30-Gallon Capacity

0 – No entry holes

1 – 1, 4" Entry hole

2 – 2, 4" Entry holes (20 or 30 Gallon Only)

B – Booted entry fittings in holes

N – No fittings in holes

2 – 2" Fitting

3 – 3" Fitting

4 – 4" Fitting

L – Adjustable legs and No base drain valve

LD – Adjustable legs with base drain valve

N – No legs and No base drain valve

ND – No legs with base drain valve

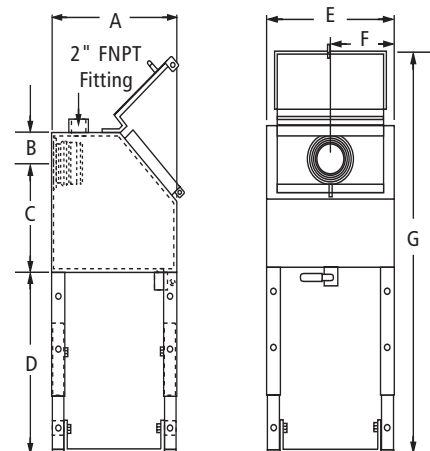
Note: an item must be selected for each column.

Dimensions

15 Gallon		20 Gallon		30 Gallon	
Weight 91 lbs. (41 kg)		Weight 135 lbs. (61 kg)		Weight 175 lbs. (79 kg)	
in.	cm	in.	cm	in.	cm
A	18¼	24	61	21	53
B	7⅞	7½	19	10½	27
C	13⅞	16½	42	16½	42
D	16½ to 30	16½ to 30	42 to 76	16½ to 30	42 to 76
E	18¼	24	61	34	86
F	9⅞	12	30½	9½	24
G	47 to 60½	56½ to 80	144 to 203	56½ to 80	144 to 203

POMEKO/OPW 211-RMOT Remote-Fill Aboveground Storage Tank Spill Containers

POMEKO/OPW Remote-Fill AST Spill Containers are designed to prevent spilled product from entering soil near the remote, horizontal-fill and vapor-return connections on an aboveground storage tank during normal tank-filling operation. The spill containers catch spillage to help prevent soil contamination and groundwater pollution. POMEKO/OPW Remote-Fill AST Spill Containers slip on the remote-fill and vapor-return piping connected to an aboveground tank. Compatible with methanol, ethanol, jet and AV-Gas fuels.



Replacement Parts

Part #	Description
201758	4 x 2 Reducer Insert
201759	4 x 3 Reducer Insert
PBOOT	Nitrile (Fuel-Resistant) Boot
H14228M	Band Clamp for PBOOT
202312	Aluminum Flange
21BV-0075	Fullport ¾"
6211R-15-LegKit	Leg Kit - 15 Gal.
6211R-20-LegKit	Leg Kit - 20 Gal.
6211R-30-LegKit	Leg Kit - 30 Gal.
PC04427	Brass Drain Valve

211R Instruction Sheet Order Number:
H15857PA

OPW 61fSTOP "THE STOPPER" Overfill- Prevention Valves

The OPW 61fSTOP Overfill-Prevention Valve ("The Stopper") is designed to prevent overfilling of aboveground storage tanks by providing a positive shut-off during a pressurized-fill (pump-on fill) delivery. "The Stopper" threads into the fill opening and is an integral part of the fill tube. The OPW61fSTOP is fully adjustable to allow for easy installation in new or existing aboveground tanks of various heights and storage capacities.

The Stopper is a single-action, complete shut-off valve. When the liquid-level rises to your specific, pre-determined tank capacity, the valve mechanism is released and automatically closes with the flow of the product. Any excess product left between the valve and the fuel-delivery coupler is drained into the tank through internal drain vents. The drain vents on the 61fSTOP act as an anti-siphon, by introducing air/vapor into the fill line, to help isolate the tank from a potential siphon due to a broken or leaking fill-pipe.

The 61fSTOP, available in either 2" or 3" full-flow models, maximizes flow rates and minimizes delivery times. The 2" 61fSTOP requires a 4" tank opening and minimum tank ullage (space from the top of the stored product to the inside top of the tank) of 8" on the 61fSTOP-1000 Cylindrical Float model and a minimum ullage of 4" on the 61fSTOP-2000 Float Arm model. The 61fSTOP-1000, with the cylindrical float, eliminates the need to position the valve to avoid tank walls or cross-bracing. The 61fSTOP-2000 with the float arm allows for increased usable storage capacity in the tank, and is well-suited for small-capacity rectangular ASTs. The 3" 61fSTOP requires a 6" tank opening and incorporates a cylindrical float requiring 8" of tank ullage space.

Materials

Valve Body, Adaptor and Collar:
Cast aluminum

Poppet: Cast aluminum,
hard-coated

Cam: Stainless steel

Follower: Brass

Shaft: CRS zinc-plated

Bearing: Sintered bronze

Float: Closed-cell nitrile

Nipple: 2" - 3" schedule
40 steel pipe

Lower Nipple: 2" - 3" schedule
40 steel pipe with Duragard®
coating



Features

- ◆ **A Special Crossbar Tank-Inlet Adaptor** – is provided with each Stopper to provide for tight-fills and help prohibit open-fills. Mounting hardware, upper drop tube and 14" lower drop tube provided (longer-length drop tubes can be purchased or added)
- ◆ **Completely Automatic Operation** – no pre-checks to perform, no resets, and no overrides to be broken or abused
- ◆ **Direct or Remote-Fill Compatible** – fuel-delivery couplers can be connected directly to the 61fSTOP, or steel pipe can be threaded into the top of the valve and piped to a remote location where the couplers are contained in a 211-RMOT Spill Container
- ◆ **Integral Anti-Siphon Valve** – drain vents on the 61fSTOP act as an anti-siphon, by introducing air/vapor into the fill line after the valve actuates, to help isolate the tank from a potential siphon due to a broken or leaking remote-fill-pipe
- ◆ **150-psi (10-bar) Pressure Rated* with Low Pressure Drop** – to enable quick, safe delivery of fuel into the tank
- ◆ **25 GPM (95 lpm) Minimum Flow Rate Required**
- ◆ **UL and ULc-Listed** – to satisfy third-party accreditation requirements of many jurisdictions

*OPW does not recommend pumping pressures above 100 psi for Class 1B fuels and we make no warranties for products use in conjunction with the 61fSTOP.

NOTE: OPW recommends the use of the 61fSTOP with clean product only. Debris and other products such as contaminated waste oil may cause improper operation of the valve.

NOTE: The 61fStop can be used in gravity drop provided the minimum flow rate is maintained.

A tight shut-off is not achieved in the closed position. However with a minimum tank size of 1,000 gallons, the leak rate will provide a 30-minute warning before the tank is full.

Ordering Specifications and Dimensions

Product #	Description	A		B		C		D		E		F	
		in.	cm	in.	cm	in.	cm	in.	cm	in.	cm	in.	cm
61fSTOP-1000	2" Cyl. Float	3	7.6	10	25.4	2	5.1	9	22.4	3 ¹⁵ / ₁₆	10	n/a	n/a
61fSTOP-2000	2" Float Arm	3	7.6	10	25.4	1/2	1.3	9	22.4	1 ³¹ / ₃₂	5	6	15.2
61fSTOP-3050	3" Cyl. Float	3	7.6	10 ⁵ / ₈	27	2	5.1	8	20.3	5 ¹ / ₈	13	n/a	n/a

Testable Conversion Kits

Product #	Description
61TEST-2	2" fSTOP Test Kit
61TEST-3	3" fSTOP Test Kit

Replacement Parts 2"

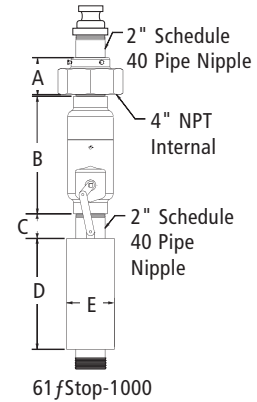
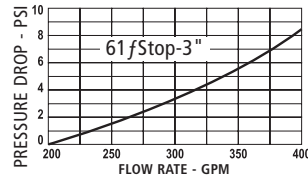
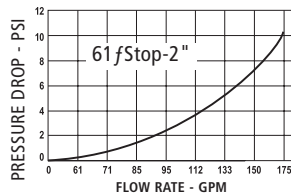
Product #	Description
C04093M	4" Retaining Collar
C04114RS	14" Nipple

Replacement Parts 3"

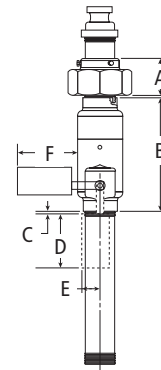
Product #	Description
D02037M	6" Retaining Collar
C04474RS	14" Nipple

61fSTOP Weights

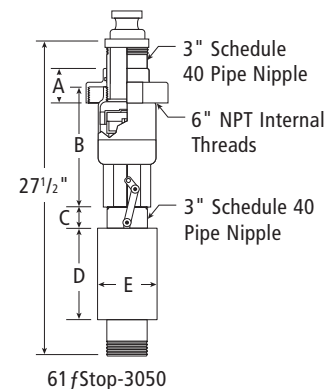
Product #	Weight	
	lbs.	kg
61fSTOP-1000	13	5.89
61fSTOP-2000	12	5.44
61fSTOP-3050	22	9.97



61fStop-1000



61fStop-2000



61fStop-3050

Replacement Parts 2"

Product #	Description
H12617M	Float for 1000 (4 pieces required)
61ARM-2000	Floating Arm Retrofit Kit For 2000

Replacement Parts 3"

Product #	Description
C04438M	Float (4 pieces required for 3050)

OPW 61FT Drop Tube

The OPW 61FT Drop Tube is designed to install on the bottom of the 61fSTOP AST Overfill-Prevention Valves when a lightweight, longer, lower drop tube is required. Constructed of extruded aluminum, the OPW 61FT is connected to the bottom of the 61fSTOP by a clevis and cotter-pin assembly, and allows for submerged filling of ASTs.

Ordering Specifications and Dimensions

CARB APPROVED AST EQUIPMENT

Product #	Description
61FT-0206	2" x 6' Drop Tube Kit
61FT-0312	3" x 12' Drop Tube Kit
205-0340	2- ¹³ / ₁₆ " x 1" Fill-Pipe Strainer

61fSTOP-1000 Instruction Sheet Order Number: **H12676M**
 61fSTOP-2000 Instruction Sheet Order Number: **H13337M**
 61fSTOP-3000, 3050 Instruction Sheet Order Number: **H13315M**
 61FT-0312, 0206 Instruction Sheet Order Number: **H14428PA**

Poppeted Kamvalok® Adaptors

The 1611AN Series Kamvalok® Adaptor is installed at the fill-pipe and contains an internal spring-loaded valve assembly that automatically closes to help prevent fuel spillage. The 1611AN mates with the 1711D Coupler to open the spring-loaded valve and proceed with a delivery.

Ordering Specifications

Product #	Seal	in.	mm
1611AN-0200	Remote-Fill with Buna Seal	2	51
1611AN-0300	Remote-Fill with Buna Seal	3	77
1612AN-0200	Remote-Fill with Viton® Seal	2	51
1612AN-0300	Remote-Fill with Viton® Seal	3	77
1672AN-SS20	2" Stainless-Steel Kamvalok® Adaptor	2	51
1672AN-SS30	3" Stainless-Steel Kamvalok® Adaptor	3	77

* Thread and Kamvalok® same size



Poppeted Kamvalok® Adaptors for Remote-Fill

1611AN Adaptor Instruction Sheet
Order Number: 204016

Poppeted Kamvalok® Couplers

The 1711D Series Kamvalok® Couplers are installed on the fuel-delivery transport truck hose and mate with the 1611AN Adaptors. The combination of the 1711D and 1611AN enable dry connection and dry disconnection of delivery fittings to help prevent accidental spillage of product.

Ordering Specifications

Product #	Seal	in.	mm
1711D-1080	Buna	3	77
1712D-1095	Viton®	3	77

* Thread and Kamvalok® same size

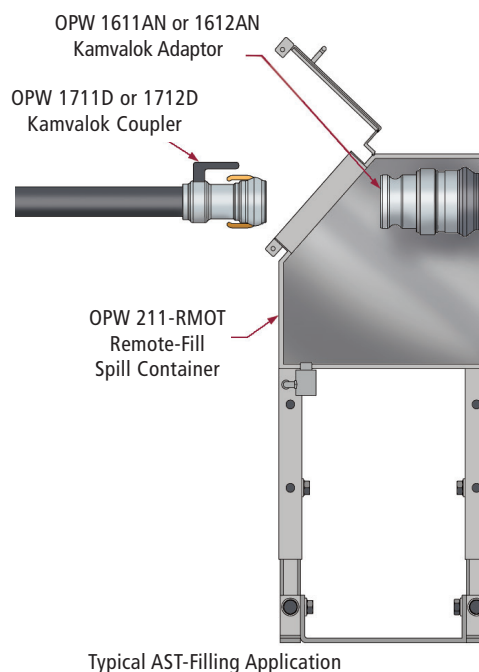


Poppeted Kamvalok® Couplers

H32116PA Coupler Instruction Sheet
Order Number: 204016

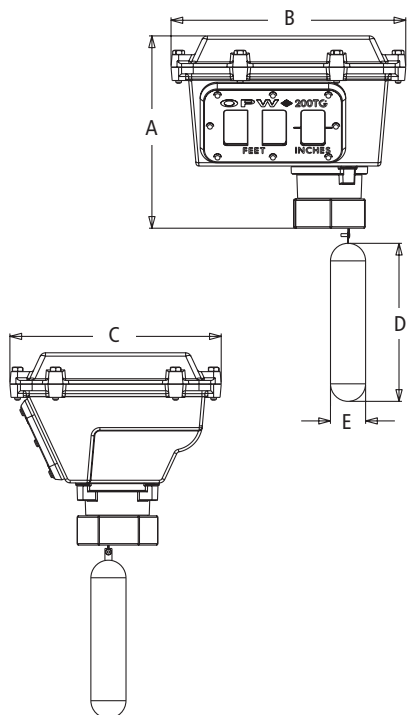
Spout Kits And Delivery Couplers And Accessories

Fuel-Delivery Couplers and Accessories are designed to connect fuel-delivery transport truck hoses or nozzles to the fill-pipe of an aboveground storage tank.



OPW 200TG AST Mechanical Tank Gauge

The OPW 200TG Tank Gauge is designed for reading liquid-levels in horizontal or vertical aboveground storage tanks. The 200TG Tank Gauge provides an accurate numerical counter readout, eliminating the need for any on-site manual gauging.



Dimensions:

	in.	cm
A	8 1/4	21
B	10 1/4	26
C	9	22.75
D	6 3/4	17.25
E	1 1/2	3.75

Replacement Parts:

Part #	Description
C05165M	Float
H15325M	Lens
H15267M	Lens Gasket
H14909M	Lid Gasket



Underwriters Laboratory Listed UL Listing MH29367. Liquid-level gauges which are intended to be used on aboveground storage tanks and monitor the level of petroleum-based flammable or combustible fluids.

Materials

Enclosure: Powder-coated aluminum

Swivel Base: Hard-coat aluminum

Float: 304 stainless-steel

Lenses: Tempered borosilicate

Gears: Acetal

Gaskets & O-Rings: Nitrile*

All Hardware: Stainless steel

Accuracy: + or - 2"



Features

- ◆ **Vapor-Tight** – allows for standard tank-pressure testing and sealing up to 25-psig (1.72 bar)
- ◆ **Angled Face** – improves visibility from ground on large-diameter tanks. May be read easily up to 30 feet away (9.14 m)
- ◆ **Swivel Adaptor Base** – allows for 360° of rotation of gauge face for easy viewing wherever needed
- ◆ **Easy Installation** – 2" NPT-threaded base reduces labor time, and comes standard with female thread. A H11421RS may be purchased for male-threaded applications
- ◆ **Corrosion-Resistant Construction** – powder-coated die-cast aluminum body assures long service life in many fluids
- ◆ **Drop Tube** – prevents float entanglement in the tank, and gives the gauge a more accurate reading when turbulence is present (Drop Tubes sold separately. They are recommended for use in tanks with high turbulence, and where other piping and structures inside the tank may cause entanglement)
- ◆ **Float Buoyancy** – designed to float in all approved fuels with a specific gravity of 0.65 and greater
- ◆ **Tank Height** – unit designed for use on any horizontal or vertical aboveground tank up to 18 feet (5.5 m) in depth. Specials available upon request
- ◆ **Numbering** – black letters on white background for ultimate contrast and better visibility. Characters stand more than 1" (25 mm) tall
- ◆ **Unit Measurement** – Can be purchased in metric units to read in meters, 1/10, 1/100, or in English units to read in feet and inches
- ◆ **Maintenance** – No annual maintenance required
- ◆ **U.S. Patent No.:** 6,523,404 - Other patents pending
- ◆ **Compatible Fuels** – see chart on page 293
- ◆ **Temperature Rating** – 120°F to -40°F (49°C to -40°C)

200TG Tank Gauge Instruction Sheet
Order Number: **H14912PA**

Ordering Specifications:

Product #	Description	lb.	kg
200TG-ENG	English Unit Tank Gauge up to 18 ft.	7.75	3.52
200TG-ENG40	English Unit Tank Gauge - 40 ft.	7.75	3.52
200TG-MET	Metric Unit Tank Gauge up to 6 m	7.75	3.52
200TGMET40	Metric Unit Tank Gauge - 10 m	7.75	3.52

(Ancillary Equipment)

Product #	Description	lb.	kg
H11421RS	2" NPT Male x Male Nipple	1.5	0.68
61T-0212	2" Dia. x 12' Long Drop Tube	4.00	1.81

Materials

Enclosure: Polybutylene terephthalate

Wire Grommet: Nylon w/Buna-N seal

Float Switch: Closed-cell Buna-N float
& stainless-steel rod

Pipe: Stainless steel

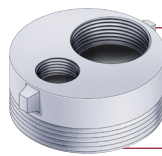
Tank Adaptor: Aluminum hardcoat anodized

444TA



Features

- ◆ **Up to four alarm signals (444TA)** – can be used for high or low liquid-level sensing, interstitial monitoring, and/or other signals in one to four separate tanks
- ◆ **Self-Powered** – lithium battery with a 10-year shelf life for long service life.
- ◆ **Audible Alarm** – sounds a 90-decibel alarm at 4 feet away
- ◆ **Visual Notifications** – red alarm light will flash during use for notification to the user. Low-battery light indicates when battery needs to be replaced
- ◆ **Corrosion-Resistant Construction** – petroleum and environmental resistant housing and all-stainless-steel pipe fitting ensure long product life
- ◆ **Product/Alarm Identification Label** – located on top of the alarm for quick and easy identification, allowing you to correspond alarms to signals. Label has a protective covering
- ◆ **Intrinsically Safe** – complies with ANSI/UL 913 for Class 1, Division 1 & 2 for Groups C & D hazardous locations
- ◆ **Cold-Weather Resistant** – all components are safe for temperatures down to -40°F operation (and up to 120° F)
- ◆ **Long-Life Lithium Battery** – self-powered by a lithium battery which includes a 10-year shelf life to ensure peace of mind for the owner
- ◆ **Easy Installation** – requires no calibration and installs easily into a 1" tank bung. May be assembled remotely or directly on top of tank



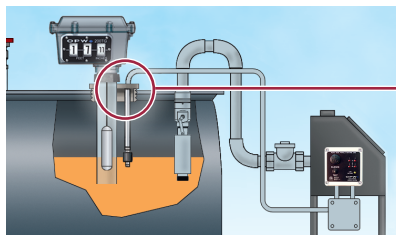
TGTA-0400 4" Tank Bung Combo Fitting
Note: Drop Tube must be used with TGTA-0400.

444TA and 144TA Instruction Sheet
Order Number: 200655

Ordering Specifications:

Product #	Description	lb.	kg
444TA-0100*	Four Signal Tank Alarm, does not include Float Switch	4	1.8
44TA-LLFS**	36" Liquid-Level Float Switch Sub-Assembly	0	0.0
144TA-0100	Single Channel Liquid Level Tank Alarm, does not include Float Switch	4	1.8
TGTA-0400	4" Tank Bung Gauge and Alarm Combo Fitting (OPW 61T required for use)	10	4.5

**The OPW 144TA Requires the OPW 44TA-LLFS, the OPW 44TA-LLFS must be purchased as a separate item.



Replacement Parts:

Part #	Description
44TA-LLFS	Liquid-Level Float Switch ASSY
H15412M	Wire Fitting
H15411M	Float Switch
Items to Convert to a Low Level Alarm:	
C05295M	SST Tube
H15937M	444TA-0100 Battery Module
202891	144TA Battery Module

OPW 444TA AST Four-Signal Tank Alarm and OPW 144TA AST Liquid-Level Tank Alarm

The OPW AST remote Four-Signal Tank Alarm is designed to sense up to four different liquid-levels or other signals using just one device.

The OPW 144TA Tank Alarm is designed for liquid-level sensing.

Alarm Technical Information:

Hazardous Location Approval: Class I, Groups C & D

Maximum Voltage: 7.2 Volts

Maximum Current: 8 ma. per input (32 ma. total)

Maximum Internal Capacitance: 23 uF

Maximum Internal Inductance: 33 mH

Maximum Ambient Temperature Rating: 60° C

Maximum Surface Temperature Classification:

T4 Surface Code

Wiring limitations: 1000-foot maximum between the 144TA/444TA unit and any remote switch for each channel of the alarm. This assumes that maximum capacitance for any input is 60 nanoFarads and that the maximum inductance is 0.2 milliHenry per input (UL-913 A7.3)

Note: This device is designed to work independently and should not be wired in parallel with another device, except as defined in the following instructions.

Requirements for devices wired to the 144TA/444TA:

- Attached wiring and devices must be classed Intrinsically Safe
- No voltage or current source
- Maximum capacitance: 60 nanoFarads (.06 uF) per input
- Maximum inductance: 200 microHenrys (.2 mH) per input

Float Switch Technical Information:

Minimum liquid specific gravity: 0.45.

Stem material: Stainless steel. Float Material: Closed-Cell

Buna-N (UL Approved) for gasoline services

Max Pressure: 150 psi @ 70° F. Thread 1/8" NPT.

444TA Dimensions:

	in.	cm
A	5 1/32	12.8
B	5 1/32	12.8
C	4 3/16	10.6

144TA Dimensions:

	in.	cm
A	5 1/32	12.8
B	5 1/32	12.8
C	3	7.6
D	4 3/16	10.6
E	1 15/16	4.9
F	35	88.9
G	1 15/16	4.9
H	1	2.5

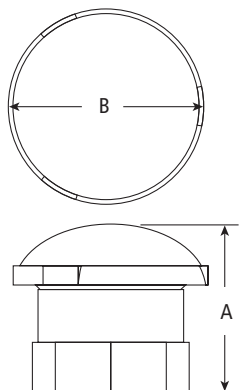
Approvals and Listings



Conforms to ANSI / UL STD 913
Certified to CAN / CSA STD C22.2 No. 157-92
Florida EQ-610

OPW 301 Emergency Vents

The OPW 301 Emergency Vent is designed to prevent an aboveground storage tank from becoming over-pressurized by providing high-capacity venting in the event of a fire or blockage. The 301 is a weighted, mushroom-style emergency vent. When the AST builds pressure, the weighted cast-iron lid is forced up off its seat to relieve the pressure. When pressure is relieved, the lid lowers and is automatically reset. The appropriate 301 Series vent is determined by the emergency venting capacity requirements of the AST and the type of connection at the tank's emergency vent opening. The OPW 301 Emergency Vent is available in 4", 6" and 8" openings with female NPT, and male NPT to allow for easy installation in new or existing aboveground tanks. Various lid-pressure settings determine the initial venting of the valve.



Replacement Parts

Part #	Description
201877	4" Seal
202721	6" Seal
203325	8" Seal

Materials

Lid: Cast iron with powder-coated finish
Body: Aluminum
Shaft: Zinc-plated steel
O-Ring: Buna-N

301 SCFH @ 2½ PSI
 (0.17 bar)
 4" - 101,000
 6" - 250,000
 8" - 421,000



Features

- ◆ **Automatically Resets** – weighted cast-iron cover reseats once the pressure in the tank is relieved
- ◆ **Aluminum Body and Cast-Iron Lid**
- ◆ **Epoxy Powder-Coated Cover** – prevents rusting of the cover to protect expensive finishes on ASTs
- ◆ **UL-Listed** – to satisfy third-party accreditation requirements of many jurisdictions

301 Series Instruction Sheet Order Number: **203568**

Ordering Specifications

Model #	Pressure		Mounting Connection	A		B		Weight	
	in.	mm		in.	mm	in.	mm	lbs.	kg
301-4080	4	101.5	8 oz.	Female NPT	4.9	124.5	6.1	154.9	10.6 4.8
301M-4081	4	101.5	8 oz.	Male NPT	4.9	124.5	6.1	154.9	10.6 4.8
301M-4161	4	101.5	16 oz.	Male NPT	6.1	154.9	6	152.4	18.1 8.2
301-6080	6	152	8 oz.	Female NPT	5.9	149.9	8.1	205.7	20.9 9.5
301-8080	8	203	8 oz.	Female NPT	6.2	157.5	10.1	256.5	33.9 15.4

Materials

Shear pin: Carbon graphite

Link: Stainless steel

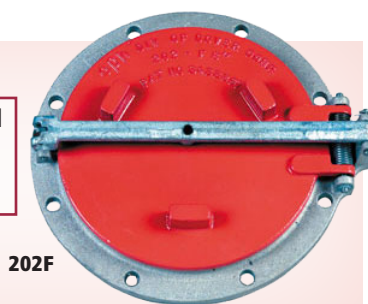
Bar: Cast iron

Lid and body: Aluminum

Sealing surface: Teflon®-coated aluminum

202F SCFH @ 2½ PSI
(0.17 bar)

8" 560,000 SCFH



202F

Features

- ◆ **Lightweight Construction** – allows for safe, easy installation on large aboveground tanks
- ◆ **Spring-Loaded, O-Ring Sealed Cover with Teflon®-Coated Seat** – ensures smooth, vapor-tight sealing surface and reliable service life
- ◆ **Full-Bore, High-Capacity Upward Venting** – enables smaller-diameter vents, with higher venting capacity, to be used on ASTs when compared to weighted, mushroom-style vents
- ◆ **Aluminum Cover and Body with Stainless-Steel Components** – corrosion-resistant construction to protect expensive finish or epoxy coatings on ASTs
- ◆ **Alerts Tank Operators of Possible Venting Problems** – when the emergency vent is actuated, the lid remains open for inspection until manually reset. The actuation of the emergency vent indicates abnormal excessive pressure build-up in the tank due to either a blockage in the normal tank vent or in the event of a rapid expansion of vapors possibly from a fire
- ◆ **3-Point Vent Shear System** – Ensures the vent safely opens every time, even if non-OPW replacement parts are utilized. Shear Pin breaks at 2.5 psi (0.17 bar), Break Link breaks at 3.5 psi (0.24 bar), and Bar breaks at 6.5 psi (0.44 bar).
- ◆ **UL-Listed** – to satisfy third-party accreditation requirements of many jurisdictions



Ordering Specifications

Model #	in.	mm	lbs.	kg
202F-0600	8	203	5.2	2.4

Dimensions 202F

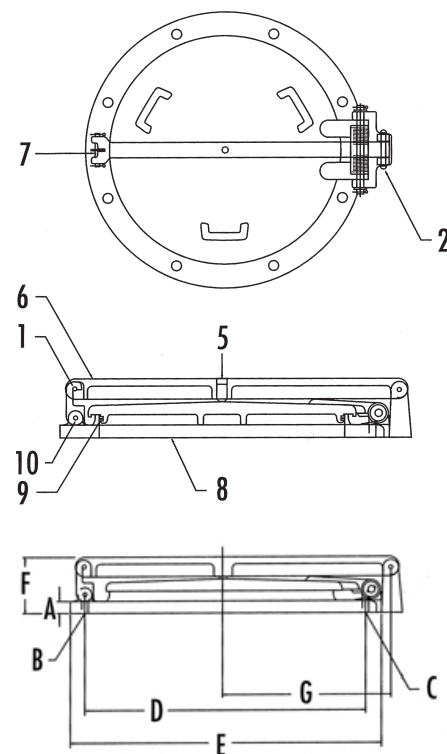
Description	in.	mm
A - Flange Hgt.	13/32	10
B - Hole Dia.	7/16	11
C - No. of Holes	8	203
D - Bolt Circle	9 1/2	241
E - Flange Dia.	10 3/8	264
F - Height	12 9/32	311
G - CL of Pivot Pt.	6 3/32	155

202F Replacement Parts

Key	Part #	Description
1	H04869RE	Break Link
2	H06475RE	Rivet
3	H04981M	Cotter Pin
4	H04928	Parts S/A
5	H04929M	Screw
6	C01288I	Bar
7	H04871M	Break Pin
8	C01289M	Gasket
9	H04873M	O-Ring
10	H06449RE	Rivet

OPW 202F Emergency Vents

The OPW 202F Emergency Vent is designed to prevent an aboveground storage tank from becoming over-pressurized by providing full-bore, high-capacity venting in the event of a fire or blockage of the OPW 23, 113, 523V or 623V. The 202F is a vapor-tight, spring-loaded emergency vent. When the AST builds pressure to 2.5 psi (0.17 bar), a break-pin shears and the spring-loaded lid opens full-bore and discharges vapors upward to relieve the pressure. The lid remains open for inspection, to indicate a problem with the normal tank venting or if a fire has taken place, until manually reset. The appropriate 202F Series vent is determined by the emergency venting capacity requirements of the AST and the type of connection at the tank's emergency vent opening. The OPW 202F Emergency Vent is available in an 8" flanged connection to mount directly to a tank manway.

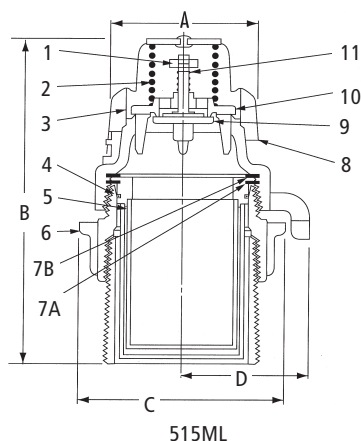


Important

FlexWorks by OPW, Inc., VAPORSAVER™ and all other OPW products must be used in compliance with all applicable federal, state, provincial and local laws, rules and regulations. Product selection must be based on physical specifications and limitations, compatibility with the environment and material to be handled. All illustrations and specifications in this literature are based on the latest production information available at the time of publication. Prices, materials and specifications are subject to change at any time, and models may be discontinued at any time, in either case, without notice or obligation. OPW warrants solely to its customer that the following products sold by OPW will be free from defects in materials and workmanship under normal use and conditions for the periods indicated.

OPW Utility Tank Vents

OPW Utility Tank Vents are installed directly on the top of aboveground storage tank or utility tank vent pipes. The vent-cap is designed to protect the tank against intrusion of water, debris or insects. The 515ML incorporates a flame-arrestor screen for jurisdictions that require these on tanks. A normally closed poppet in the valve opens at a predetermined pressure or vacuum setting to allow the tank to vent.



Dimensions (515ML)

	in.	mm
A	2 ⁵ / ₁₆	59
B	5 ¹ / ₄	133
C	3 ¹ / ₈	79
D	1 ¹⁵ / ₁₆	49

Materials

Cap Body: High-tensile aluminum alloy construction. Has straight pipe threads with Nitrile gasket for tight seal to tank.

Dome: Plated steel

Screen: 40-mesh brass

515ML



Features

- ◆ Flame-Arrestor Screen – for jurisdictions that require flame arrestors on tank vents.
- ◆ 5 PSI (0.34 bar) Pressure and 1 oz. Vacuum Settings – factory preset and tested to protect against product vapor loss and allow for rapid withdrawal of product from the tank.
- ◆ Reliable Service – precision-machined, lapped-bronze pressure and vacuum seats ensure consistent seating of the pressure/vacuum valve.
- ◆ Corrosion-Resistant Construction – zinc/aluminum alloy body and zinc-plated steel dome assure a long service life.
- ◆ Easy Installation – 515ML is available in 2" (1-1/2" NPSH) male straight threads.
- ◆ High-Maximum Flow Rate – 3500 SCFH at 7.5 psi (0.52 bar) pressure drop.

Replacement Parts

Key	Part #	Description
1	H01967M	Nut
2	H10096M	Pressure Spring
3	H07355M	Screen
4	H11432M	Seal
5	C03991M	Dome
6	H07356B	Vacuum Disc
7	H08380AH	Pressure Disc
7A	H11211M	O-Ring
7B	H03636M	Cap Gasket
8	H07353M	Vacuum Spring

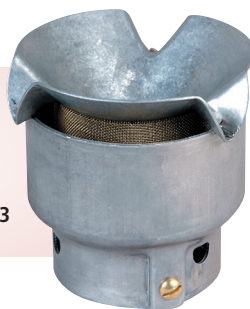
Ordering Specifications

Product #	in.	mm	lbs.	kg
515ML-1030	2	51	1.80	.82

Materials

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

23



Features

- ◆ **Reliable Service** – vent-cap drain spouts extend outward to deter rainwater entry
- ◆ **Corrosion-Resistant Construction** – aluminum body and cap assure a long service life
- ◆ **Easy Installation** – 23 series is available in 2" and 3" slip-on models that provide for attachment to the vent line with set screws
- ◆ **Complies with NFPA 30 Requirements** – for venting gasoline vapors upward
- ◆ **High Maximum Flow Rate** – 7000 SCFH at 2 psi (0.1 bar) pressure drop
- ◆ **40-Mesh Brass Wire Screen** – helps prevent debris and insects from entering the tank vent lines

Replacement Parts

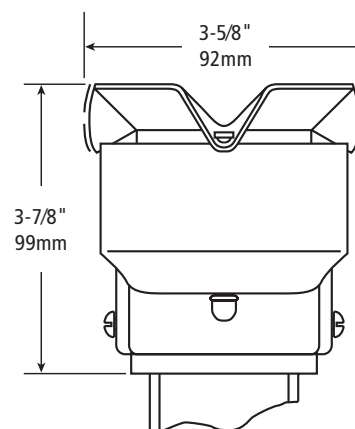
Part #	Description
H00122M	Screw
H01967M	Nut
H01969M	Screen

Ordering Specifications

Product #	Description	in.	mm	lbs.	kg	Weight	
						lbs.	kg
23-0044	Open Vent	1½	38	.25	0.11	0.25	0.11
23-0033	Open Vent	2	51	.25	0.11	0.25	0.11
23-0055	Open Vent	3	76	1.6	0.73	1.00	0.45

OPW 23 Series Open Atmospheric Vents

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



OPW 113 Series Open Atmospheric Utility Vents

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

Materials

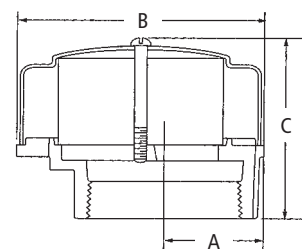
Body: Zinc/aluminum
Screen: brass
Cap: 2" - Steel 4" - cast-iron
Screen: 40-mesh stainless-steel

113



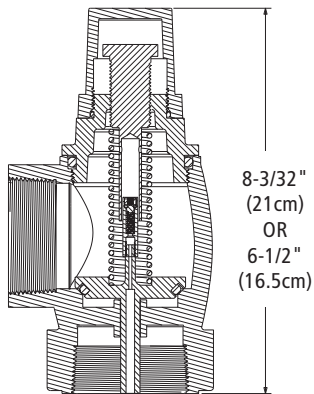
Ordering Specifications

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



OPW 199ASV Anti-Siphon Valve

The OPW 199ASV Anti-Siphon Valve is designed to help prevent siphoning of an aboveground storage tank should a leak or break occur in the fuel-supply line. The 199ASV installs on the top of an aboveground storage tank with a suction rod on the inlet and the fuel-supply line (to a remote pump) on the outlet of the valve. A poppet in the valve remains normally closed, isolating the tank from siphoning. When the remote pump is activated, it overcomes a factory-adjusted spring set to a predetermined hydrostatic head pressure and allows flow of fuel out of the AST. An internal pressure relief valve helps absorb thermal expansion in the fuel-supply line. The 199ASV is available in female NPT threads with four different factory-adjusted hydrostatic head-pressure settings.



- ◆ 8³/₃₂" model for 1¹/₂" and 2" (20.55 cm model for 3.81 cm and 5.08 cm)
- ◆ 6¹/₂" model for 3/4" and 1" (16.51 cm model for 1.90 cm and 2.54 cm)

Materials

Body: Clear anodized aluminum
Bonnet: Powder-coated aluminum
Cap: Powder-coated aluminum
Spring: Stainless steel
Poppet: Hard-coated aluminum
Screw: Hard-coated aluminum
Poppet Seal: Nitrile



199ASV

Features

- ◆ **Factory-Adjusted Hydrostatic Head-Pressure Settings** – allow for quick, safe and easy installation on aboveground tanks
- ◆ **Internal Pressure Relief Valve** – helps protect piping and fittings from damage due to thermal expansion. Set to operate between 20 to 40 PSI (1.3 to 2.7 bar)
- ◆ **Aluminum Bodies** – compatible with gasoline, diesel, kerosene, ethanol, methanol, fuel oil and jet fuels
- ◆ **Temperature Rating** – -20°F - 120°F (29°C - 49°C)

Valve Rating
ft of gasoline
S.G. = 0.7

Approximate Cracking Pressure

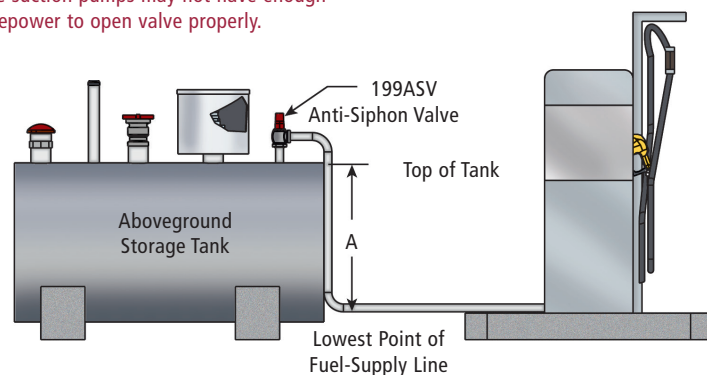
	PSI	ft. H ₂ O	in. H ₂ O	in. Hg	ft. Gas	ft. Diesel
0-5	1.88	4.33	51.96	3.85	6.2	5.35
5-10	3.68	8.48	101.76	7.53	12.12	10.47
10-15	5.6	12.92	155.04	11.47	18.51	15.95
15-20	7.4	17.07	204.84	15.16	24.4	21.07

*Note: Some suction pumps may not have enough horsepower to open valve properly.

Ordering Specifications

Product #	in.	mm	lbs.	kgs	Hydrostatic Head Pressure* (Dimension A)
199ASV-1075	3/4	19	1.6	.725	0'-5'
199ASV-2075	3/4	19	1.6	.725	5'-10'
199ASV-3075	3/4	19	1.6	.725	10'-15'
199ASV-1100	1	25	1.6	.725	0'-5'
199ASV-2100	1	25	1.6	.725	5'-10'
199ASV-3100	1	25	1.6	.725	10'-15'
199ASV-1150	1 1/2	38	2.0	.907	0'-5'
199ASV-2150	1 1/2	38	2.0	.907	5'-10'
199ASV-3150	1 1/2	38	2.0	.907	10'-15'
199ASV-1200	2	51	2.0	.907	0'-5'
199ASV-2200	2	51	2.0	.907	5'-10'
199ASV-3200	2	51	2.0	.907	10'-15'

*Note: Head Pressure calculated for gasoline.



Listings and Certifications



Warning: Do not disassemble.
Do not field adjust.

Materials

Body: Aluminum
Diaphragm: Viton®
Seals & Disc: Viton®
Spring: Stainless steel
Rider Rings: Teflon®
Disc Holder: Nylon
Core Guide: Acetal, delrin
Core & Plugnut: Stainless steel



Features

- ◆ **Aluminum Body** - compatible with gasoline, diesel, kerosene, low grades ethanol/methanol, fuel oil and jet fuels
- ◆ **Strainer** - strainer with 100-mesh screen is recommended at the inlet
- ◆ **Mount** - vertical
- ◆ **Explosion-Proof Shell & Water-Tight**
- ◆ **Standard Operation** - 120/60 volts AC
- ◆ **Thermal Expansion**
- ◆ **Power Draw** - 20 Watts @ 60 Hz

Ordering Specifications

Product #	NPT Size in.	General Purpose	*CV Flow	Fluid Temp.	Operating Pressure Differential (PSI)		Operating Pressure Differential (BAR)		Weight		Mounting Position
					Min.	Max.	Min.	Max.	lbs.	kg	
821-0150AC	1½	AC	35	125	0	25	0	1.7	7.25	3.29	Upright & Vertical
821-0200AC	2	AC	60	125	0	25	0	1.7	7.25	3.29	Upright & Vertical

*CV Flow: GPM @ 1 psi Pressure Drop

Dimensions

Product #	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
821-0150AC	5.00	127	5.59	142	6.84	174	5.38	137
821-0200AC	6.09	155	5.94	151	7.47	190	6.31	160

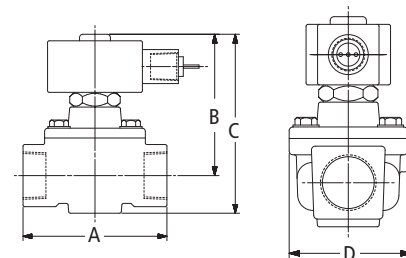
OPW 82RV - Thermal Pressure Relief Valve

Product #	NPT Size in.	Operating Pressure 25 psi, Stainless-Steel Construction	Weight	
			lbs.	kg
82RV-2505	½		.25	.113

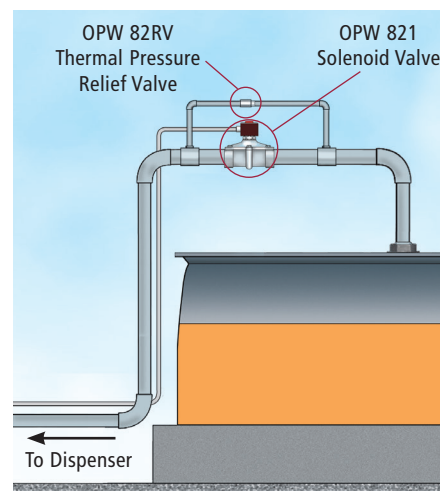


OPW 821 Solenoid Valve

The OPW 821 Solenoid Valve is designed to prevent accidental siphoning of aboveground storage tanks if a leak or break occurs in the fuel-supply line. The 821 valve is a two-way, normally closed diaphragm valve that opens when energized to allow fuel to flow to the pump or dispenser. Available in female NPT threads.



82RV-2505 Series Pressure Relief Valve
Instruction Sheet Order Number: 200517



OPW 82RV

The 82RV is designed to give thermal pressure relief to our 821 Series Solenoid Valve line. Made of all-stainless-steel construction with a Viton® seal, it is suitable for all petroleum products. The 82RV is precision set at the factory at 25 PSI (1.7 bar), and is field adjustable from 5 to 30 psi (.34 to 2 bar).

Listings and Certifications



Materials

Body and Cap: Ductile iron
Packing Nut and Stem: Stainless steel
Disc: Viton®
Stem Seat: Viton®
Seat Ring: Brass
Cap and Packing Nut Seals: Viton®



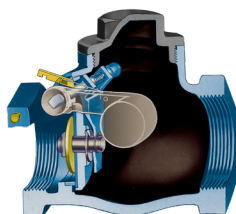
(Valve Shown in Open Position)

Features

- ◆ **178S Ductile-Iron Construction** – valve is manufactured from a ferrous metal to resist fracturing from high temperatures
- ◆ **Full-Bore Inside Diameter for Superior Flow Rates** – maximizes flow rates in the fuel-supply lines
- ◆ **Protected Main Poppet Disc** – main poppet seal is held out of the main flow stream and protected from damage due to dirt or debris in the fuel
- ◆ **Compensator Ring on Main Poppet Carrier** – ensures full seating of the main poppet for a tight seal
- ◆ **Viton® Main Disc and Stem Seat** – compatible with gasoline, diesel, kerosene, ethanol, methanol, MTBE, fuel oil, mogas, motor oil and various other blends of fuel
- ◆ **Rated at Normal Pressure Limit of 125 psi (8.6 bar) (cold)**
- ◆ **Non-Shock Pressure Limit of 200 psi (13.8 bar)**
- ◆ **Temperature Limit 225° F (107°C)**



(Valve Shown in Closed Position)

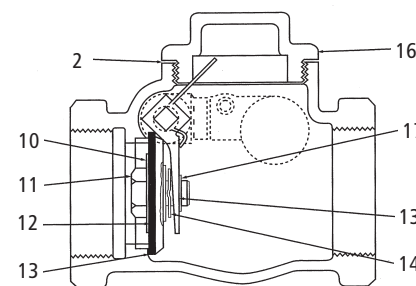
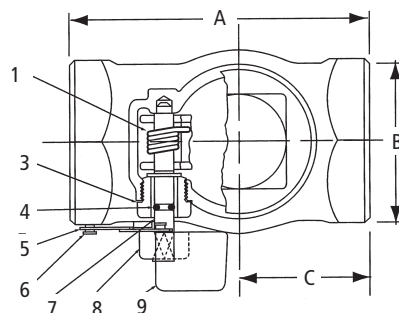


Replacement Parts

Key	Part #	Description
1	H05973M	Spring
2	H12070M	O-ring (Viton®)
3	H7635RB	Packing Nut
4	H10445M	O-ring (Viton®)
5	H01344M	Fusible Link Sub-Assy.
6	H01505RB	Pin
7	C01533RB	Stem
8	H07644M	Set Screw
9	H07642ZA	Lever
10	H03295M	Washer
11	H04035M	Disc Nut
12	H12071R	Disc (Viton®)
13	H10004A	Disc Holder
14	H11293M	Compensating Ring
15	C03144M	Carrier
16	H11547DI	Cap
17	H10003M	Retaining Ring

OPW 178S Series External AST Emergency Shut-Off Valve

The OPW 178S Series External AST Shut-Off Valve is designed to shut off product flow from an aboveground storage tank, bulk-loading rack or any place in the fuel-supply line in the event of a fire. The 178S installs in-line on fuel-supply piping. A fusible link attached to a spring-operated lever holds the poppet normally open. In the event of a fire, the fusible link melts at 160° F, allowing the spring-actuated poppet to shut off the flow of product in the fuel-supply line. The 178S is available in 2" female NPT connections.



Dimensions

	in.	mm
A	5 ¹⁷ / ₃₂	140
B	3 ¹ / ₁₆	78
C	3 ¹ / ₁₆	78

Listings and Certifications



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

