

Emissions Related Products and Deck Fills

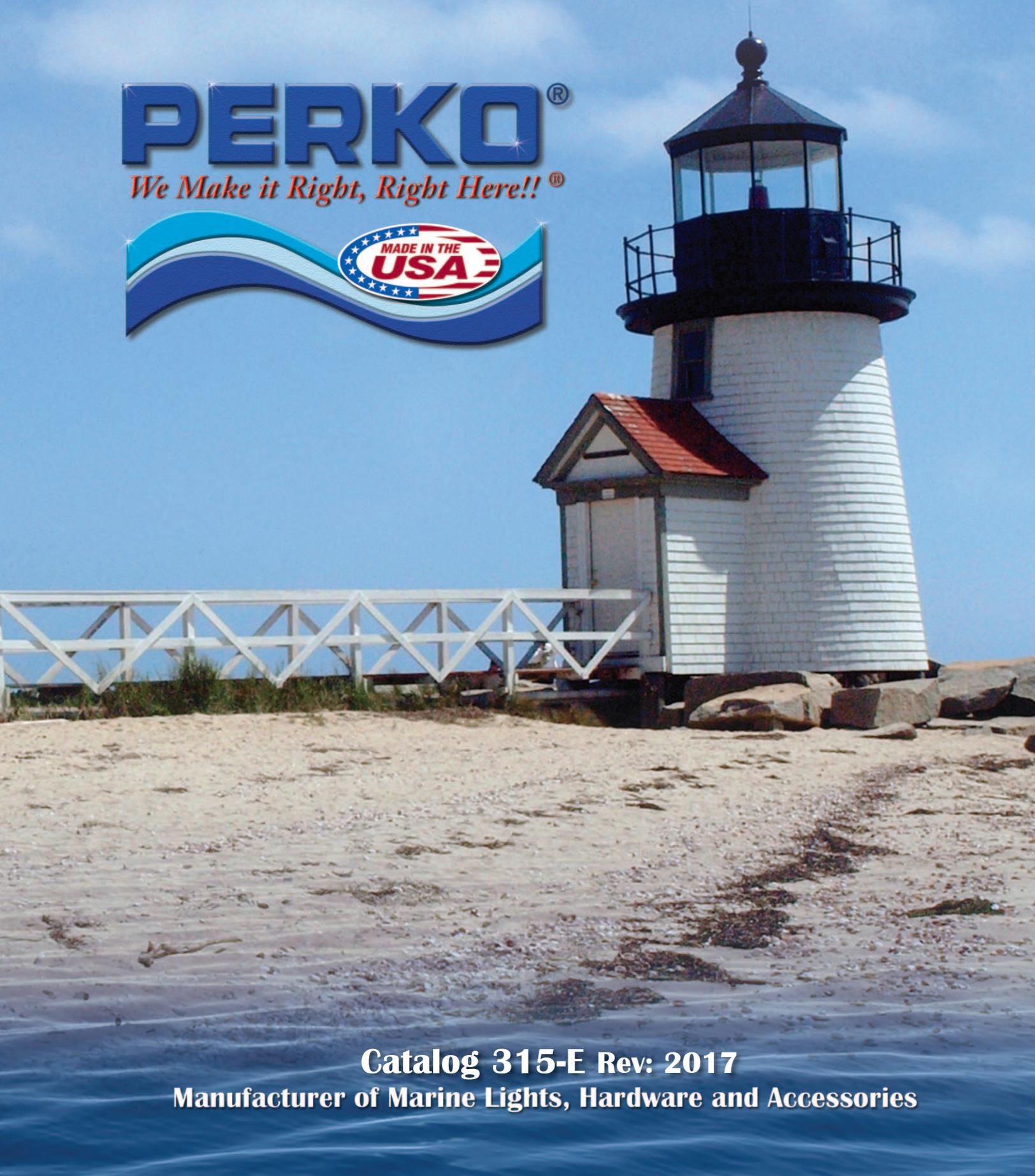
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PERKO®

We Make it Right, Right Here!!®



Catalog 315-E Rev: 2017

Manufacturer of Marine Lights, Hardware and Accessories



Catalog No. 315-E (Rev 2017) For Emissions Related Products and Deck Fills

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Canister Systems versus Pressurized

An important first question when designing an EPA compliant fuel system is whether to use a pressurized or canister system. There are advantages and disadvantages to each, and they change with the type and size of boat, the number of fuel tanks, and the engines installed. Many are described below.

Regardless of the system chosen, Perko offers all of the components needed. The type of system we suggest for any given application is determined by the following:

- System safety and reliability
- Ease of refueling
- Available space
- Type and size of boat
- Range requirements
- Cost issues

Canister (Atmospheric) Systems

Canister systems operate at atmospheric pressure and have been around for over 4 decades. Literally hundreds of millions have been used in cars worldwide and they are the most popular systems used on boats. In general, if there is space for a canister, then a canister system will likely be the best choice. Canisters are simply containers of carbon that absorb hydrocarbons passing through during the day as fuel expands due to rising temperature (the diurnal cycle). Then, they are released back into the tank at night when fuel contracts due to dropping temperature's, bringing in fresh air.

Canisters have no moving parts. They are essentially trouble and maintenance free. A good fuel system design is important in order to provide the proper air flow in the tank. Because carbon has a high affinity for attracting liquids, if fuel and water were to get into the canister, they can lock up the carbon causing air restrictions. Therefore, care must be taken to protect the canister from becoming saturated with liquid.

General advantages of canister systems:

- No daily pressure cycle strain on components
- No engine feed line pressurization or special valves required for uphill feed lines
- No additional engine feed line restrictions – easy on low suction fuel pumps
- No vapor expulsion when opening caps to refuel
- Lower cost (for boats with more than 1 tank and/or 1 engine)
- Decades of automotive use history (millions of cars use canister systems worldwide)

General disadvantages of canister systems:

- Space requirements – a typical canister is roughly the size of a half gallon container.
- More complex plumbing and hose routing is needed to protect the canister from liquids
- Slightly higher cost for boats with 1 tank and 1 engine (perhaps 2% to 5%)

Pressurized Systems:

Pressurized systems are really designed not to vent out (to atmosphere). By law, they cannot vent out below 1 psi. In practice, these systems often hold as much as 1½ psi of pressure for two primary reasons: First, manufacturers are unwilling to risk products that don't meet the "not below 1 psi" requirement. So with valve opening and closing tolerances as high as ±¼ psi, manufacturers choose valves based on the low side of the opening tolerance just to be certain. Second, pressure relief valves usually close at a lower pressure than they open. This can force manufacturers to choose higher valve opening settings to assure valves will be closed before the system pressure drops below 1 psi. To be safe, boat builders should assume a pressurized system will remain pressurized until pressure reaches at least 1¼ psi and probably over 1½ psi. Note that even when these systems vent, they vent only down to 1 psi, never below. During most days, pressurized systems are not likely to vent at all. Rather, they inflate during the day and deflate at night, putting stress onto connections.

Pressurized systems have some curious nuances. Some can even be troublesome. One is that they pressurize the engine feed line. If a pressurized feed line were to rupture or be cut, raw fuel could be sprayed. Plus, a pressurized feed line can cause an engine to leak fuel when not running. So a device (like a Fuel Demand Valve – FDV) must be used to assure this can't happen. The cost of the FDV offsets much of the "no canister needed" savings. Also note that since many marine fuel pumps have low suction, it can be tricky to balance an unpressurized fuel line with an engines ability to suck fuel from the tank.

Boat storage can also cause problems. See the sketches on the next page that follow for an explanation of this issue.

General advantages of pressurized systems:

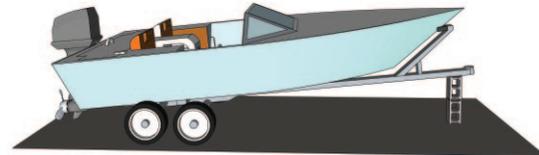
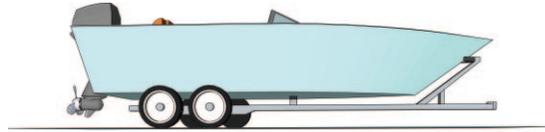
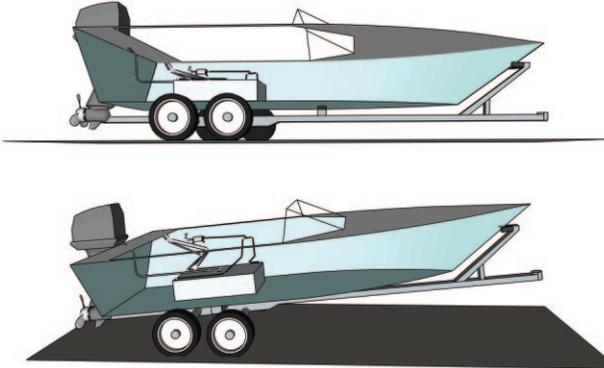
- Minimal space needed for installation.
- Simplified plumbing.
- Slightly lower cost (for boats with only 1 tank and 1 engine).

General disadvantages of pressurized systems:

- Safety risks associated with pressurized fuel systems and explosive vapor releases when refueling.
- Higher strain on components, hoses, clamps and gaskets from daily pressure cycle.
- Require a Fuel Demand Valve (FDV) to prevent engine feed line pressurization.
- Additional engine feed line restrictions that can affect engines with low fuel pump suction.
- Potential for excessive vapor expulsion when opening fuel caps to refuel.
- Require total pressure relief before attempting to refuel
- Minimal (less than 5 years) long term use experience with large (>10 gallons) fuel tanks.
- Higher cost (for boats with multiple tanks and engines).

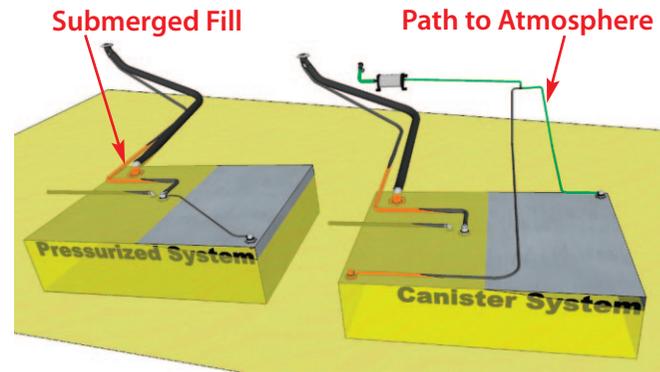
Boat storage angles can cause special problems for pressurized systems

Boats stored outdoors are often tilted to prevent an accumulation of water. With just two cinder blocks under the trailer tongue, this boat is tilted 6° bow up. If the tank is filled with fuel, this angle will most likely submerge one or more valves used for tank venting below the level of fuel (in this case) at the aft end of the tank.



The valves used in marine fuel systems (if submerged over time) will begin to leak a very small amount of fuel. In as little as one month, this small leak rate can fill vent lines with fuel. Like the trap in your sink, fuel in a vent line will prevent air from passing through. Therefore, it is important to design vent line plumbing systems that will provide a fuel free "path to atmosphere" regardless of storage angles.

Pressurized systems complicate storage issues. If the fill hose tank connection happens to be submerged and a fuel cap opened while the tank is under pressure, fuel can be expelled violently from the system creating a significant hazard. Extreme care must be exercised when designing pressurized fuel systems to prevent this possibility, especially when in storage.



Carbon Canisters

Location

The canister can be mounted in any location that the current vent line is located. The canister is installed between the fuel tank vent fitting and the fresh air vent fitting. The canister must be mounted above the highest point of the fuel tank. Thought must be given to the following when choosing a location:

- The hose connections to the canister must be accessible for inspection and service.
- The canister should not be mounted in a location where it will be stepped on or otherwise have a force exerted upon it.
- The canister is designed to withstand a temperature of 115°C continuously. Short term excursions (15 minutes) to 125°C is acceptable.
- The canister can be mounted in any orientation.
- If mounted in the engine compartment, the canister must have a heat shield (this is an optional component that will be integral to the canister).

System Requirements

The fuel tank vent system must be designed in such a way that liquid fuel is not passed through the vent line and into the canister. The vent system must also prevent the intake of water into the vent system and into the canister. These are requirements of the EPA regulations. When designing your fuel system, you must also consider fuel expansion and situations such as storage of the vessel with a full tank on an incline.

Mounting of the Canister

The canister (with the bracket) is designed to be mounted with four #10 screws. This is the setup that has been validated to ABYC standards. If the end user chooses to mount the canister in some other fashion, they are responsible for the validation of the mounting. Please note that the canister has an internal plate and spring that must be able to move inside the body of the canister. For this reason, any mounting mechanism must not constrain the body for 25 mm from either end of the canister body.

Connection of the Vent Line to the Canister

The vent hose must be anchored to the boat structure within 6 inches of the canister fittings. The vent hose must be routed to prevent a load from being exerted onto the canister fittings.

The hose clamp must be a minimum of 3/8" wide. The clamp must not distort the fitting on the canister when tightened.



5/16" Nipple



5/8" Nipple



Fig. 0486 Delphi Carbon Canisters Features & Benefits

The spring loaded volume compensator compresses carbon to reduce internal abrasion caused by vibrations. The heavy wall, elliptically shaped body and location of the volume compensator near the end of the canister permit higher pressures (up to 5 psi) during pressure testing, thus simplifying pressure test set up.

Large surface area filters located at each end of the canister keep carbon in place and allow for the lowest airflow restrictions available.



Fig. 0486 Vapor tube

Patented "floating bracket" allows for easy installation while reducing the transmission of torque to the canister body, end caps and spuds.

The "floating bracket" also protects end caps from heat so that the factory installed heat shield is all that is needed to meet engine compartment requirements for fire protection. Builders simply install as usual with no additional effort or insulation requirements.



Activated Carbon
Volume varies depending on application

Carbon Canisters Sizing

Trailerable Boats



Non-Trailerable Boats



Use the table below to determine canister size based upon length of boat and fuel tank volume.

Trailerable Under 26 Ft

Canister (Liters)	Tank Size (Gallons)
.50	0-62
.75	63-93
1.0	94-124
1.5	125-186
2.0	187-248
3.0	249-372
4.0	373-496

Non-Trailerable Over 26 Ft

Canister (Liters)	Tank Size (Gallons)
.50	0-124
.75	125-186
1.0	187-248
1.5	249-372
2.0	373-496
3.0	497-744
4.0	745-992

1

Delphi canisters are available in sizes ranging from 0.5L to 4.0L. Each size offers hose nipple connection options of 5/16" in and 5/8" out or 5/8" in and 5/8" out. The same configurations are also available with a heat shield if required.



1.0L Shown with Optional Heat Shield

Fig. 0486



0.5L Shown with Optional Heat Shield

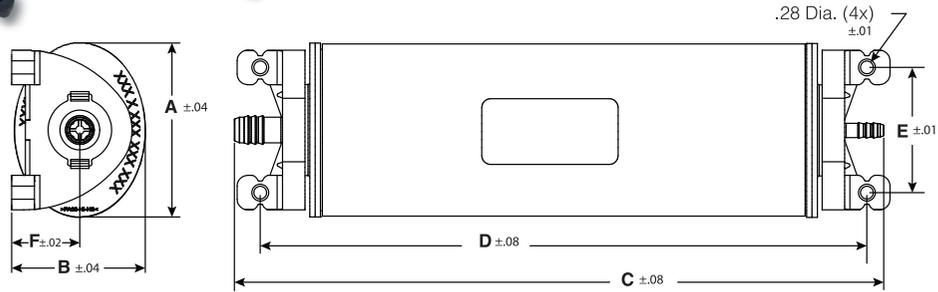


Fig 0486 - Carbon Canister Ordering & Tech Information

Catalog No.	Vent Size	Canister Size	Heat Shield	Dimensions Inches						Std. Pkg.	OEM Bulk Pkg.	Ship Wt.(lbs.) Std. Pkg./ OEM Bulk
				A	B	C	D	E	F			
0486005035	5/16" x 5/8"	0.5 Liter	No	3.83	2.90	9.65	8.72	2.76	1.50	1	10	1.5/12.5
0486005055	5/8" x 5/8"	0.5 Liter	No	3.83	2.90	9.85	8.72	2.76	1.50	1	10	1.5/12.5
0486007035	5/16" x 5/8"	0.75 Liter	No	3.83	2.90	11.92	11.03	2.76	1.50	1	10	1.8/15.5
0486007055	5/8" x 5/8"	0.75 Liter	No	3.83	2.90	12.12	11.03	2.76	1.50	1	10	1.8/15.5
0486010035	5/16" x 5/8"	1.0 Liter	No	3.83	2.90	14.30	13.36	2.76	1.50	1	10	2.2/18.5
0486010055	5/8" x 5/8"	1.0 Liter	No	3.83	2.90	14.50	13.36	2.76	1.50	1	10	2.2/18.5
0486015035	5/16" x 5/8"	1.5 Liter	No	3.83	2.90	19.00	18.06	2.76	1.50	1	10	3.0/22.0
0486015055	5/8" x 5/8"	1.5 Liter	No	3.83	2.90	19.25	18.06	2.76	1.50	1	10	3.0/22.0
0486020035	5/16" x 5/8"	2.0 Liter	No	5.03	3.78	14.74	13.80	3.57	1.89	1	5	3.2/14.5
0486020055	5/8" x 5/8"	2.0 Liter	No	5.03	3.78	14.94	13.80	3.57	1.89	1	5	3.2/14.5
0486030035	5/16" x 5/8"	3.0 Liter	No	5.03	3.78	20.17	19.25	3.57	1.89	1	5	4.6/21.0
0486030055	5/8" x 5/8"	3.0 Liter	No	5.03	3.78	20.37	19.25	3.57	1.89	1	5	4.6/21.0
0486040035	5/16" x 5/8"	4.0 Liter	No	5.03	3.78	25.42	24.56	3.57	1.89	1	5	5.5/26.0
0486040055	5/8" x 5/8"	4.0 Liter	No	5.03	3.78	25.62	24.56	3.57	1.89	1	5	5.5/26.0
0486H05035	5/16" x 5/8"	0.5 Liter	Yes	3.83	2.90	9.65	8.72	2.76	1.50	1	10	1.6/14.0
0486H05055	5/8" x 5/8"	0.5 Liter	Yes	3.83	2.90	9.85	8.72	2.76	1.50	1	10	1.6/14.0
0486H07035	5/16" x 5/8"	0.75 Liter	Yes	3.83	2.90	11.92	11.03	2.76	1.50	1	10	1.9/17.0
0486H07055	5/8" x 5/8"	0.75 Liter	Yes	3.83	2.90	12.12	11.03	2.76	1.50	1	10	1.9/17.0
0486H10035	5/16" x 5/8"	1.0 Liter	Yes	3.83	2.90	14.30	13.36	2.76	1.50	1	10	2.3/21.0
0486H10055	5/8" x 5/8"	1.0 Liter	Yes	3.83	2.90	14.50	13.36	2.76	1.50	1	10	2.3/21.0
0486H15035	5/16" x 5/8"	1.5 Liter	Yes	3.83	2.90	19.00	18.06	2.76	1.50	1	10	3.3/26.0
0486H15055	5/8" x 5/8"	1.5 Liter	Yes	3.83	2.90	19.25	18.06	2.76	1.50	1	10	3.3/26.0
0486H20035	5/16" x 5/8"	2.0 Liter	Yes	5.03	3.78	14.74	13.80	3.57	1.89	1	5	3.6/17.0
0486H20055	5/8" x 5/8"	2.0 Liter	Yes	5.03	3.78	14.94	13.80	3.57	1.89	1	5	3.6/17.0
0486H30035	5/16" x 5/8"	3.0 Liter	Yes	5.03	3.78	20.17	19.25	3.57	1.89	1	5	5.2/23.0
0486H30055	5/8" x 5/8"	3.0 Liter	Yes	5.03	3.78	20.37	19.25	3.57	1.89	1	5	5.2/23.0
0486H40035	5/16" x 5/8"	4.0 Liter	Yes	5.03	3.78	25.42	24.56	3.57	1.89	1	5	6.5/30.0
0486H40055	5/8" x 5/8"	4.0 Liter	Yes	5.03	3.78	25.62	24.56	3.57	1.89	1	5	6.5/30.0



The Perko Fuel Demand Valve is a diaphragm-operated valve opening at low vacuum regardless of tank pressure. The valve is available in both flanged and threaded versions.

Fig. 0463-Fuel Demand Valve

Features:

- **Pressure release button** - No tools needed to pressurize engine feed line during pressure test. Easy button removal to provide visual indication of test completion.
- **Anti-siphon protection** - For line drops of 12" maximum. Custom drop distances available.
- **Handles high tank pressure** - Seals to pressures in excess of 5 psi.
- **Opens at low vacuum** - Valve opens at minus 3/4 psi (approx.) regardless of internal tank pressure.
- **Max Flow Rate:** Up to 88 gal/hr.

Fig. 0463 Flanged Version

- **SAE Bolt Circle** - Bolts & gaskets are common with flanged level senders. Easy to tool & install for tank builders.
- **Swivel head** - Reduces clogging issues and facilitates boat builder plumbing.

Fig. 0463 Threaded Versions

- **Small tank footprint** - 1/2" NPTF tank connection or
- **Low profile** - 1" NPTF.
- Easy to install. Receiver not included.

Construction

- Aluminum housing and barbs
- Viton seals



Fig. 0463F
SAE 5 Bolt
Low Profile

**Meets
A.B.Y.C. H-24
Fire Test**

Fig. 0463T
1" NPTF
Low Profile

Fig. 0463H
1/2" NPTF
Small Footprint

Low Profile Valves

Small Footprint Valve



Fuel Output Hose Barb:
3/8" or 1/2" Options

Threaded Fuel Input Pick-up Adapter:
For Low Profile Valves
3/8" and 1/2" Options

Pressure Release Button:
Press Down to pressurize fuel line for leak test. (Remove once system is pressure tested)

Snap In Fuel Input Pick-up Adapter:
For Small Footprint Valves
3/8" and 1/2" Options

Complete Assembly - Ordering and Technical Info - OEM Bulk Pkg. 10 Pcs.

Catalog No.	Style	Length (Inches)	Width Including Barb (Inches)	Projection Above Tank (Inches)	Hose Connections Barb/Pick-up	Tank Connection	Shipping Weight Lbs.
0463H38038	Thread - Sm foot print	4-7/8	3-3/4	2-1/2	3/8 & 3/8	1/2" NPTF	3.4
0463H12012	Thread - Sm foot print	4-7/8	3-3/4	2-1/2	1/2 & 1/2	1/2" NPTF	3.4
0463T38038	Thread - Low Profile	3-1/4	3-3/4	1-1/4	3/8 & 3/8	1" NPTF	3.4
0463T12012	Thread - Low Profile	3-1/4	3-3/4	1-1/4	1/2 & 1/2	1" NPTF	3.4
0463F38038	Flange - Low Profile	3-1/4	4-1/4	1-1/4	3/8 & 3/8	SAE 5 Bolt	3.4
0463F12012	Flange - Low Profile	3-1/4	4-1/4	1-1/4	1/2 & 1/2	SAE 5 Bolt	4.0
0463F12038	Flange - Low Profile	3-1/4	4-1/4	1-1/4	3/8 & 1/2	SAE 5 Bolt	4.0

Body and Hose Barb Assembly Only - Ordering and Technical Info - OEM Bulk Pkg. 10 Pcs.

Body Only Catalog No.	Style	Length (Inches)	Width (Inches)	Projection Above Tank (Inches)	Hose Connections	Tank Connection	Shipping Weight Lbs.
0463H0B038	Threaded	3-1/2	3-3/4	2-1/2	3/8	1/2" NPTF	3.1
0463H0B012	Threaded	3-1/2	3-3/4	2-1/2	1/2	1/2" NPTF	3.2
0463T0B038	Threaded	2-1/4	3-3/4	1-1/4	3/8	1" NPTF	3.3
0463T0B012	Threaded	2-1/4	3-3/4	1-1/4	1/2	1" NPTF	3.3
0463F0B038	Flanged	2-1/4	4-1/4	1-1/4	3/8	SAE 5 Bolt	3.8
0463F0B012	Flanged	2-1/4	4-1/4	1-1/4	1/2	SAE 5 Bolt	3.8



Pick-Up Adapter Only - Ordering Info - OEM Bulk Pkg. 10 Pcs.

Pick-Up Adapter Catalog No.	For use with	Pick-up Connection	Adapter Connection Type	Shipping Weight Lbs.
0463012HAD	1/2" Threaded	1/2	Snap-In	0.5
0463038HAD	1/2" Threaded	3/8	Snap-In	0.5
0463012TAD	1" Threaded/Flanged	1/2	Threaded	0.5
0463038TAD	1" Threaded/Flanged	3/8	Threaded	0.5





2

CONSTRUCTION:

- White polymer valve with black polymer flapper
- Valves designed for use with plastic or metal tanks
- Perko's "Flapper Valve" fits inside the fuel hose or inlet fitting itself
- Eliminates the need to retool existing doghouse on plastic tanks
- Allows for full 18 gpm flow rates

Fig. 0635 Fill Hose Insert Inlet Check Valves (ICV)

- These in-hose ICVs mount inside standard 1½" or 2" fill hose near the connection to the fuel tank



Fig. 0635
for 1-1/2" Hose



Fig. 0635
for 2" Hose (Diesel)



Fig. 0635 installs in the fuel hose. Diagram shows location of the Flapper valve insert in the fill hose



Fig. 0636 Fill Pipe Insert Inlet Check Valves (ICV)

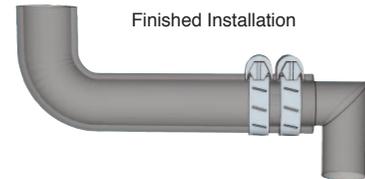
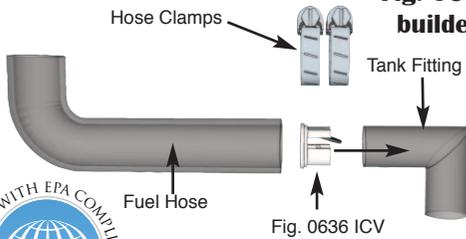
- This ICV mounts inside standard 1½" tank fill inlet fittings (1-3/8" I.D.)
- Replaces in-line ICVs, eliminating 4 hose clamps & 2 leak points

Fig. 0636
Shown installed in inlet fitting

Fig. 0636
for 1-1/2" Inlet Fittings



Fig. 0636 is installed by the tank builder in the Fuel Inlet Fitting



Ordering & Technical Information

Recommended Use	Hose Connection	Length Inches	Width Inches	Fire Test Capable	Dealer Pkg. 5 Pcs.	OEM Bulk Pkg. 25 Pcs.	Shipping Weight Lbs. DP/OEM Bulk.
Gasoline Systems	1-1/2	1-1/4	1-9/16 Dia.	Yes	0635DP0	0635000	0.6/2.0
Diesel Systems	2	1-1/4	1-15/16 Dia.	Yes	0635DP2*	0635002*	1.0/2.5
Gasoline Systems	1-1/2	7/8	1-1/2 Dia.	Yes	0636DP0*	0636000*	0.4/1.5

* New Item



STANCHION TUBES AND SPECIAL APPLICATION INLET CHECK VALVES (ICV)

Fig. 0638 Stanchion Tubes

For use with Diesel tank systems to set ullage depth

- Pick up tube can be cut to adjust tank ullage

CONSTRUCTION:

- Aluminum

OPTIONS:

- 3/4" Threaded NPTF
- SAE 5 bolt Flanged (Cork gasket included)

Technical Information

- For use on polymer or aluminum tanks
- Hose Connection: 5/8"
- Projection above tank: 1-5/8"
- Max length below tank surface 4"
(Installer cuts to length as needed)



Fig. 0638F



Fig. 0638T

Ordering & Technical Information - OEM Bulk Pkg 10 Pcs.

Style	Catalog No.	Hose Connection	Tank Connection	Max Length Below Surface (Inches)	Shipping Wt. Lbs. OEM Bulk Pkg.
Flanged	0638F00400	5/8	SAE 5 Bolt	4	2.5
Threaded	0638T00400	5/8	1/2" NPTF	4	2.5



Special Application Inlet Check Valves (ICV) (Also see page E-8)

- ICVs are used to help prevent wellback (the reverse flow of fuel out of the fill after refueling is completed) & spitback. These normally closed valves are opened by the presence of fuel running down the fill pipe during refueling.
- All Perko inlet check valves are designed to handle incoming fuel flows in excess of 18 gallons per minute.
- Inlet check valves can be tank mounted or inserted into the fill pipe.
- Mounting options for tank mounted ICVs include flanged (for plastic tanks), threaded, welded or swivel (for metal tanks).
- Custom ICVs are also available for specialized applications



CONSTRUCTION:

- Machined aluminum
- White polymer valve
- Valves designed for mounting on aluminum tanks
- Mounting options – Welded or 1 1/2" NPTF Threaded
- Aluminum tank ICVs can be factory cut to 22 1/2° or 45° angles so that tank builder can form & weld 45° and 90° elbows.

0° Angle



90° Angle



Technical Information

- For use in polymer or aluminum tanks
- Hose Connection: 1-1/2"
- Maximum fuel leakage is 0.5 cc/m at 12.5 & 149 kPa.
- Custom lengths available



Fig. 0584F00
0° Flanged



Fig. 0584F90
90° Flanged



Fig. 0584S4500A
45° Swivel



Fig. 0584S0000A
0° Swivel



Fig. 0584T00
0° NPTF



Fig. 0584T 1-1/2" NPTF Threaded Inlet Check Valve (ICV)

Fig. 0584S0A Swivel Inlet Check Valve (ICV)

- For mounting on metal tanks

Fig. 0584F Flanged Inlet Check Valve (ICV)

- For mounting on plastic or aluminum tanks
- Gasket not included

CONSTRUCTION:

- Machined or Cast Aluminum
- White Polymer Valve
- Available with 0°, 45° or 90° hose barb connection
- Swivel Valves include valve, valve housing, o-ring, snap ring and tank insert
- Fire test capable

Technical Information

Catalog No.	Length Inches	Width Inches	Projection Inches	Hose Connection Inches	Bolt Circle Inches	Mounting Hole Dia. Inches
0584T90	4	2-3/4	2-1/16	1-1/2	N/A	1-1/2 NPTF
0584T45	4	2-1/2	2-1/16	1-1/2	N/A	1-1/2 NPTF
0584T00	3-3/4	1-29/32	2	1-1/2	N/A	1-1/2 NPTF
0584F90	3-27/32	4-3/8	2	1-1/2	3-3/4	3
0584F45	4-31/32	4-3/8	3-1/8	1-1/2	3-3/4	3
0584F00	4-27/32	4-3/8	2-3/8	1-1/2	3-3/4	3
0584S9000A	4-7/8	2-3/4	2-5/16	1-1/2	N/A	2-1/4
0584S4500A	6	2-3/4	3-7/16	1-1/2	N/A	2-1/4
0584S0000A	5-1/4	2-3/4	2-11/16	1-1/2	N/A	2-1/4

Ordering Information - OEM Bulk Pkg. 10 Pcs.

Catalog No.	Style	Collar	For Use on Tank Type	Hose Connection Inches	Angle/Port	Fire Test Capable	Shipping Weight Lbs.
0584T90	NPTF, Threaded	No	Aluminum	1-1/2	90°	Yes	13.6
0584T45	NPTF, Threaded	No	Aluminum	1-1/2	45°	Yes	11.2
0584T00	NPTF, Threaded	No	Aluminum	1-1/2	0°	Yes	4.8
0584F90	Flanged	No	Plastic or Alum	1-1/2	90°	Yes	11.0
0584F45	Flanged	No	Plastic or Alum	1-1/2	45°	Yes	10.0
0584F00	Flanged	No	Plastic or Alum	1-1/2	0°	Yes	9.2
0584S9000A	Swivel	Yes	Aluminum	1-1/2	90°	Yes	9.6
0584S4500A	Swivel	Yes	Aluminum	1-1/2	45°	Yes	8.2
0584S0000A	Swivel	Yes	Aluminum	1-1/2	0°	Yes	7.6



IN-LINE SURGE PROTECTOR & COMBO PACK

Fig. 0553 In-line Vent Hose Surge Protector

CONSTRUCTION:

- Black and White Polymer Valve
- Aluminum Surge Float

Perko's in-line surge protector functions both as a fill limit valve assisting in pump auto shut-off and a check valve to prevent wellback in the vent line. Consult Perko for details on how to install the surge protector as a replacement for a fill limit valve.

Note: Must be installed within 45° of vertical if vented.

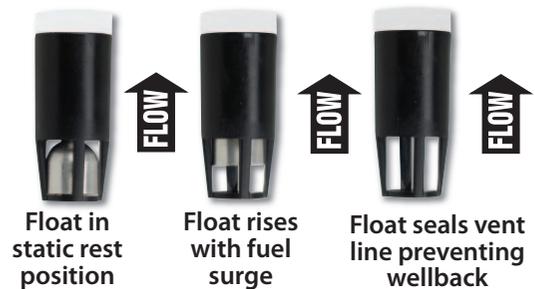
Features:

- Prevents fuel surges and back splash during re-fueling
- Fits in 5/8" Fuel hose vent line



Diagram illustrates placement of surge protector in the vent line.

Fig. 0553



Ordering & Technical Information

Hose Connection	Length Inches	Dealer Pkg. 5 Pcs. 1 Per Card	OEM Bulk Pkg. 25 Pcs.	Carton Ship Wt. Lbs. DP/OEM Bulk
5/8	1-9/16	0553DP0	0553000	0.8/2.0

Reduce Refueling Spills Combo pack Inlet Check Valve and Surge Protector

Installing an **Inlet Check Valve** in the fill hose and a **Surge Protector** in the vent line can significantly reduce spitback & wellback during the refueling of most boats.

Features:

- Reduces fuel surges and backsplash during refueling
- Reduces leak points
- For use with 1-1/2" fill hose and 5/8" vent hose
- OEM and Aftermarket
- Can be used with aluminum or plastic fuel tanks
- Aids in automatic pump shutoff
- Allows unobstructed airflow at fill rates up to 18 gpm

Easy to Install:

- Loosen hose clamps
- Remove hose
- Insert valve in hose
- Re-install hose & tighten clamps
- Check for leaks

Fig. 0635 Inlet Check Valve installs in the fill hose near the fuel tank to reduce wellback through the fill hose.

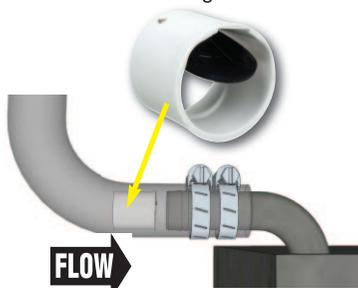
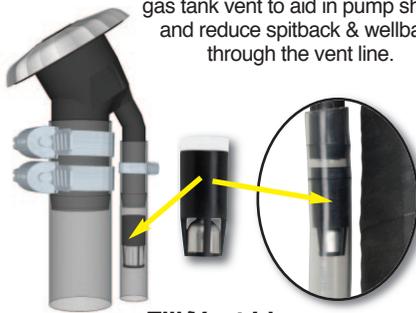


Fig. 0635 in fill hose

Fig. 0553 Surge Protector installs in the vent line near the fuel fill or a gas tank vent to aid in pump shutoff and reduce spitback & wellback through the vent line.



Fill/Vent Line Installation



Cat. No. 0030DP0005



Counter Top Display:
Cat. No.: 0030DP5DIS
5 Combo Packages in one display box

Fill Limit Valves (FLV)

- FLVs are used to establish ullage (airspace) in the tank and help prevent overfilling.
- Perko FLVs connect to 5/8" hose. They are designed to vent to vented fuel fills and not directly to canisters.
- Mounting options for tank mounted FLV's include flanged (for plastic tanks), threaded, welded and swivel (for metal tanks).
- Swivel valves include valve, valve housing, o-ring, snap ring and tank insert.
- Distant sensing (DFLV) versions are available for both plastic and metal tanks on a custom basis.
- Custom ullage set points are available. Contact the factory for details.

Technical Information

- For use on plastic or aluminum tanks
- Hose Connection - 5/8"
- Flow > 70 l/min @ 0.25 kPa.
- Flow without corking > 130 l/min.
- Minimum reopening pressure: 0.5 kPa



Fig. 0586F00 Flanged Fill Limit Valve (FLV)

CONSTRUCTION:

- Machined Aluminum
- Blue Polymer Valve
- Standard ullage depths range from 3/8" to 1-1/2"
- Matches the SAE 5-bolt level sender flange
- Gasket is not included
- For mounting on aluminum or plastic tanks

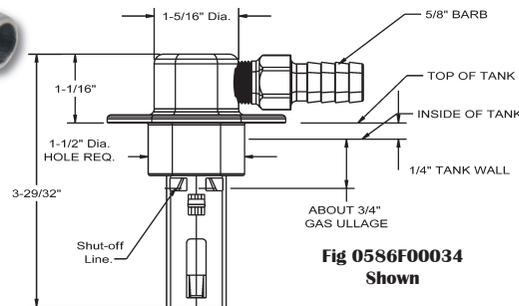


Fig 0586F00034 Shown

Technical Information

Catalog No.	Length Inches	Width Inches	Projection Inches	Ullage Depth Inches	Hose Connection Inches	Bolt Circle Inches	Mounting Hole Dia. Inches
0586F00038	3-17/32	2-3/4	1-1/16	3/8	5/8	2-1/8	1-1/2
0586F00012	3-21/32	2-3/4	1-1/16	1/2	5/8	2-1/8	1-1/2
0586F00034	3-29/32	2-3/4	1-1/16	3/4	5/8	2-1/8	1-1/2
0586F00118	4-9/32	2-3/4	1-1/16	1-1/8	5/8	2-1/8	1-1/2
0586F00112	4-21/32	2-3/4	1-1/16	1-1/2	5/8	2-1/8	1-1/2

Ordering Information - OEM Bulk Pkg. 10 Pcs.

Catalog No.	Style	Ullage Depth Inches*	Collar	For Use on Tank Type	Angle Port	Fire Test Capable	Shipping Weight Lbs.
0586F00038	Flanged	3/8	No	Plastic or Alum	90°	Yes	3.5
0586F00012	Flanged	1/2	No	Plastic or Alum	90°	Yes	3.5
0586F00034	Flanged	3/4	No	Plastic or Alum	90°	Yes	3.8
0586F00118	Flanged	1-1/8	No	Plastic or Alum	90°	Yes	4.4
0588F00112	Flanged	1-1/2	No	Plastic or Alum	90°	Yes	4.8

*Note: Longer shut-off heights in 1/2" increments are generally available up to 5-1/2". For custom heights, contact the factory.



Fig. 0586T00 NPTF Threaded Fill Limit Valve (FLV)

CONSTRUCTION:

- Machined aluminum
- Blue polymer valve
- Standard ullage depths range from 3/8" to 1-1/2"
- For mounting on aluminum tanks
- See page E-10 for more FLV information



Technical Information

Catalog No.	Length Inches	Width Inches	Projection Inches	Ullage Depth Inches*	Hose Connection Inches	Mounting Hole Dia. Inches
0586T00038	3-31/32	1-5/16	1-1/4	3/8	5/8	1" NPTF
0586T00034	4-11/32	1-5/16	1-1/4	3/4	5/8	1" NPTF
0586T00118	4-23/32	1-5/16	1-1/4	1-1/8	5/8	1" NPTF
0586T00112	5-3/32	1-5/16	1-1/4	1-1/2	5/8	1" NPTF

Ordering Information - OEM Bulk Pkg. 10 Pcs.

Catalog No.	Style	Ullage Depth Inches	Collar	For Use on Tank Type	Angle Port	Fire Test Capable	Shipping Weight Lbs.
0586T00038	NPTF, Threaded	3/8	No	Aluminum	90°	Yes	2.6
0586T00034	NPTF, Threaded	3/4	No	Aluminum	90°	Yes	2.9
0586T00118	NPTF, Threaded	1-1/8	No	Aluminum	90°	Yes	3.4
0586T00112	NPTF, Threaded	1-1/2	No	Aluminum	90°	Yes	4.1

*Note: Longer shut-off heights in 1/2" increments are generally available up to 5-1/2". For custom heights, contact the factory.



Fig. 0586S0A

Fig. 0586S0A Swivel Fill Limit Valve (FLV)

CONSTRUCTION:

- Machined Aluminum
- Blue Polymer Valve
- Standard ullage depths range from 3/8" to 1-1/2"
- For mounting on aluminum tanks
- See page E-10 for more FLV information

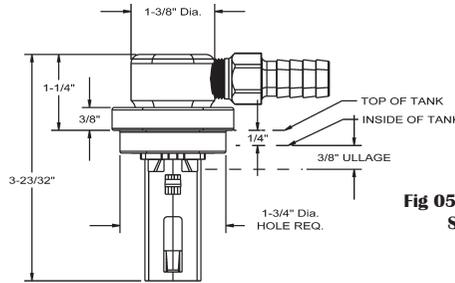


Fig 0586S0A038 Shown



Fig. 0586S0A112

Fig. 0586S0A118

Fig. 0586S0A034

Fig. 0586S0A038

Technical Information

Catalog No.	Length Inches	Width Inches	Projection Inches	Ullage Depth Inches	Hose Connection Inches	Mounting Hole Dia. Inches
0586S0A038	3-23/32	2	1-1/4	3/8	5/8	1-3/4
0586S0A034	4-3/32	2	1-1/4	3/4	5/8	1-3/4
0586S0A118	4-15/32	2	1-1/4	1-1/8	5/8	1-3/4
0586S0A112	4-27/32	2	1-1/4	1-1/2	5/8	1-3/4

Ordering Information - OEM Bulk Pkg. 10 Pcs.

Catalog No.	Style	Ullage Depth Inches*	Collar	For Use on Tank Type	Angle Port	Fire Test Capable	Shipping Weight Lbs.
0586S0A038	Swivel	3/8	Yes	Aluminum	90°	Yes	4.0
0586S0A034	Swivel	3/4	Yes	Aluminum	90°	Yes	4.2
0586S0A118	Swivel	1-1/8	Yes	Aluminum	90°	Yes	4.8
0588S0A112	Swivel	1-1/2	Yes	Aluminum	90°	Yes	5.5

*Note: Longer shut-off heights in 1/2" increments are generally available up to 5-1/2". For custom heights, contact the factory.



Custom Emissions System Fill Limit Valves

Contact the factory for specific ordering information

Fig. 0586XL Group
Fig 0586S0A400



Fig 0586S0A300

Fill Limit Valves with longer shut-off heights up to 5-1/2"

Mounting Flange for Aluminum Tanks



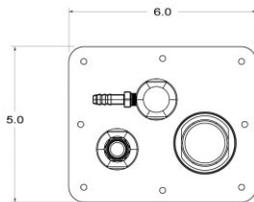
Fig. 0586T00118 with Flange

Distant Sensing FLV

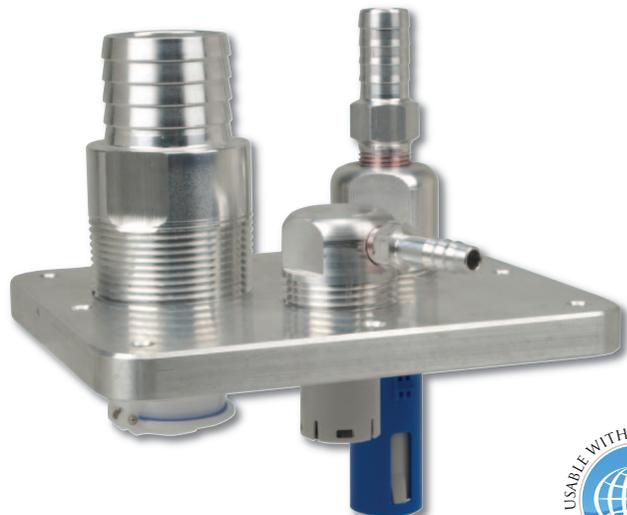
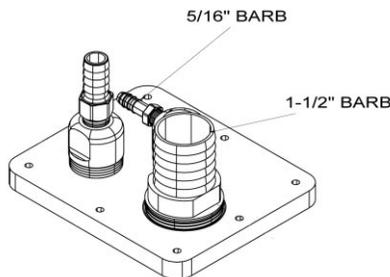
For Polymer Tanks



For Aluminum Tanks



Special Manifold for ICV, FLV and TV



Tank Vent Valves (TVV) (ROV)

- Tank vent valves are designed to direct vapors generated during the diurnal cycle. Vent lines from TVV's generally run to carbon canisters. Properly installed, TVV's help protect canisters from liquid fuel.
- Perko TVV's are sometimes referred to as rollover valves (since they offer rollover protection) and as grade vent valves.
- Mounting options for tank mounted TVV's include flanged (for plastic tanks), threaded, welded or swivel (for metal tanks).
- Internally mounted versions are available for both plastic and metal tanks on a custom basis.

Technical Information

- For mounting on Plastic or Aluminum tanks
- Hose Connection: 5/16"
- Vent orifice: 0.075 inch (~1.9 mm)
- Air Flow Rate Positive Pressure @ 0°: 3.0 kPa ≥ 5 l/min & 15 kPa ≥ 10 l/min
- Reopening Pressure > Min 15 kPa
- Maximum fuel leakage is less than .4 cc/min 11.2 kPa



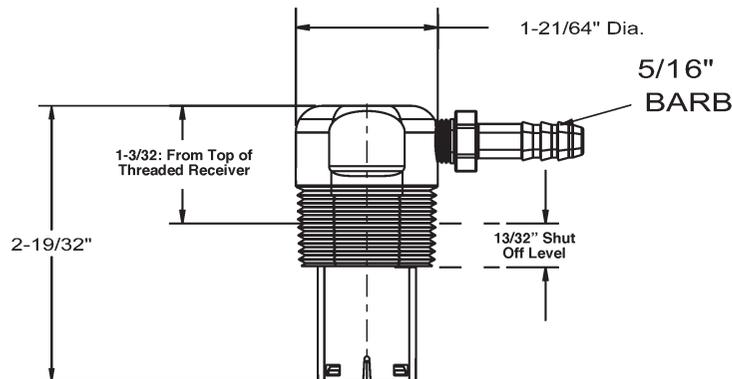
Fig. 0588T00 NPTF Threaded Tank Vent Valve (TVV)

CONSTRUCTION:

- Machined Aluminum
- Polymer Valve
- Mount with a 1" NPTF thread
- For mounting on metal tanks



Fig. 0588T00



Technical Information

Catalog No.	Length Inches	Width Inches	Projection Inches	Shut Off Height Inches	Hose Connection Inches	Mounting Hole Dia. Inches
0588T00	2-19/32	1-21/64	1-3/32	13/32	5/16"	1" NPTF

Ordering Information - OEM Bulk Pkg. 20 Pcs.

Catalog No.	Style	Collar	For Use on Tank Type	Angle/Port	Fire Test Capable	Shipping Weight Lbs.
0588T00	NPTF, Threaded	No	Aluminum	90°	Yes	4.1



FLANGED AND SWIVEL TANK VENT VALVES (TVV)



Fig. 0588F00 Flanged Tank Vent Valve (TVV)

CONSTRUCTION:

- Machined Aluminum
- Polymer Valve
- Matches the SAE 5-bolt level sender flange
- Gasket is not included
- For mounting on plastic tanks
- See page E-14 for more TVV information

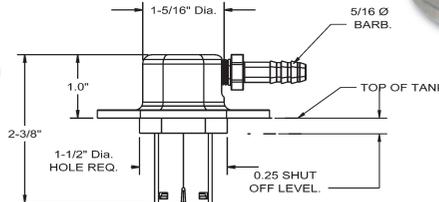


Fig. 0588F00

Technical Information

Catalog No.	Length Inches	Width Inches	Projection Inches	Shut Off Height Inches	Hose Connection Inches	Bolt Circle Inches	Mounting Hole Dia. Inches
0588F00	2-3/8	2-3/4	1	1/4	5/16"	2-1/8	1-1/2

Ordering Information - OEM Bulk Pkg. 20 Pcs.

Catalog No.	Style	Collar	For Use on Tank Type	Angle/Port	Fire Test Capable	Shipping Weight Lbs.
0588F00	Flanged	No	Plastic	90°	Yes	5.1

Fig. 0588S0A Swivel Tank Vent Valve for Aluminum Tanks (TVV)

CONSTRUCTION:

- Machined Aluminum
- Polymer Valve
- For mounting on metal tanks
- Includes valve, valve housing, o-rings, snap ring and tank insert

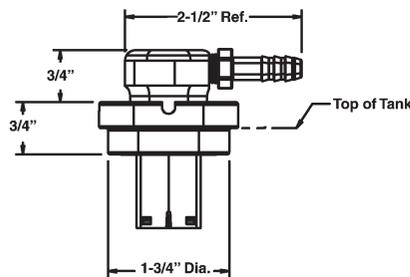


Fig. 0588S0A



Technical Information

Catalog No.	Length Inches	Width Inches	Projection Inches	Shut Off Height Inches	Hose Connection Inches	Mounting Hole Dia. Inches
0588S0A	2-9/16	2	1-1/8	3/8	5/16"	1-3/4"

Ordering Information - OEM Bulk Pkg. 20 Pcs.

Catalog No.	Style	Collar	For Use on Tank Type	Angle/Port	Fire Test Capable	Shipping Weight Lbs.
0588S0A	Swivel	Yes	Aluminum	90°	Yes	5.8

Fig 0488 - Air-Fuel Separator

CONSTRUCTION:

- Black Polymer
- Air Fuel (A/F) separators are designed to protect canisters from liquid fuel. Vapors pass through the device to the canister while liquids are returned to the fuel tank.
- Perko A/F separators mount using the same “floating bracket” system used on Perko/Delphi carbon canisters.
- A 0588 series TVV is mounted inside each Perko A/F separator giving it slosh protection and the restriction needed to aid in automatic pump shutoff.
- Available with heat shields for use in engine compartment installations.
- Properly installed, A/F separators can replace tank vent valves, eliminating the need to provide access to distant parts of the fuel tank.

5



A/F Separator Cutaway View



Fig. 0488001



Vent Valve

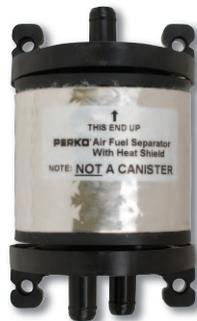
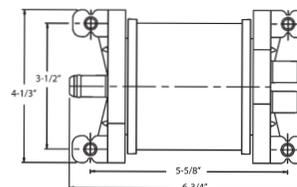
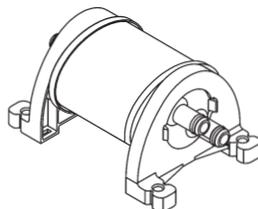
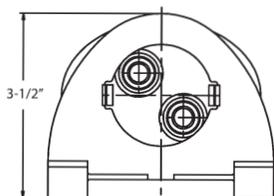
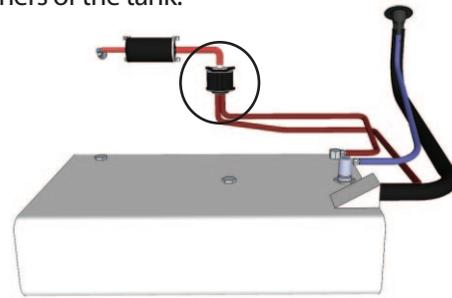


Fig. 0488H01 with Heat Shield



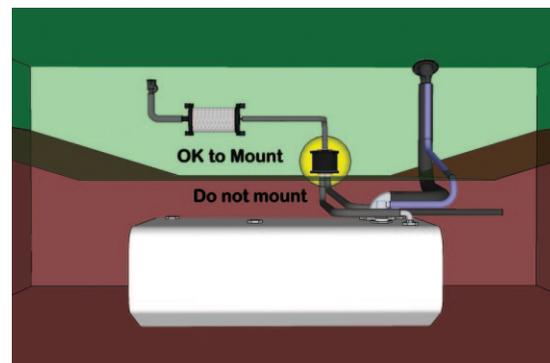
Air-Fuel Separator Access Issues

Perko's Air Fuel Separator helps solve difficult access problems. Running internal vent lines (in either plastic or aluminum tanks) and replacing the tank vent valves with an air fuel separator eliminates the need to provide access to distant corners of the tank.



Air-Fuel Separator Positioning

Perko's Air Fuel separator must be positioned horizontally above the highest level that fuel in the tank can reach during full tilt or storage. The further away from the port/starboard centerline of the tank that the air fuel separator is located, the higher it must be positioned above the tank.



Ordering Information

Catalog No.	Heat Shield	Length Inches	Width Inches	Projection Inches	Hose Connection Inches	OEM Bulk Pkg.	Shipping Weight Lbs.
0488001	No	6-3/4	4-1/3	3-1/2	5/8	5	3.7
0488H01	Yes	6-3/4	4-1/3	3-1/2	5/8	5	3.7



Fig. 0631 P-Trap with Pressure and Vacuum Relief

CONSTRUCTION:

- Blue polymer body and black splash guard, stainless steel escutcheons and aluminum shaft
- EPA certified pressure relief
- Allows vapor to vent from tank during thermal expansion of fuel and while refueling
- Allows fresh airflow into the tank during thermal contraction of fuel and when engine is running
- Helps to protect canister and fuel system from water
- Splash guard style vent opening reduces water volume entering assembly
- Internal P-Trap design helps to prevent water entering into fuel system
- 90° hose connection (to vent axis)



Fig. 0631

5

Ordering Information

Catalog Number	Vacuum Pressure Relief	Body Color	Splash Guard Color	Hose Size	Hull Thickness	OEM Bulk Pkg. Qty.	Shipping Wt. Carton Lbs.
0631004BLU	Yes	Blue	Black	5/8"	0" to 1"	25	10.1

Figs. 0630 & 0632 P-Traps

CONSTRUCTION:

- Black polymer body with either black or white polymer splash guard
- Allows vapor to vent from tank during thermal expansion of fuel and while refueling
- Allows fresh airflow into the tank during thermal contraction of fuel and when engine is running
- Helps to protect canister and fuel system from water
- Deflector style vent opening reduces water volume entering assembly
- Internal P-Trap design helps to prevent water entering into fuel system
- 90° hose connection (to vent axis)

Fig. 0630 Features: Stainless steel escutcheons, aluminum shaft, and polymer body & splash guard with 5/8" vent line hose connection

Fig. 0632 Features: Multiple styles of splash guards, connection options to fit 5/16" or 5/8" vent line hoses - 5/8" vent line option provides sufficient airflow for refueling vapors



Fig. 0630



Fig. 0632
Shown: Style 1
for 5/8" vent hose



Fig. 0632
Shown: Style 1
for 5/16" vent hose



Fig. 0632
Shown: Style 2
for 5/16" vent hose



Fig. 0632
Shown: Style 2
for 5/8" vent hose

Ordering Information

Catalog Number	Vent Line Hose Size	Splash Guard Style	Splash Guard Color	Max. Hull Thickness Inches	OEM Bulk Pkg. Qty.	Shipping Weight Carton Lbs.
0630004BLK	5/8	Cup	Black	0 to 1	25	10.1
0630004WHT	5/8	Cup	White	0 to 1	10	5.4
0632011BLK	5/16	Style 1	Black	5/8	25	5.0
0632011WHT	5/16	Style 1	White	5/8	25	5.0
0632014BLK	5/8	Style 1	Black	5/8	25	5.0
0632014WHT	5/8	Style 1	White	5/8	25	5.0
0632021BLK	5/16	Style 2	Black	5/8	25	5.0
0632021WHT	5/16	Style 2	White	5/8	25	5.0
0632024BLK	5/8	Style 2	Black	5/8	25	5.0
0632024WHT	5/8	Style 2	White	5/8	25	5.0



Style 1 Mounted



Style 2 Mounted

P-TRAP SPARE PARTS ORDERING INFORMATION

Fig 0630 & 0631 Spare Cap Assembly (includes flange, guard and screw): Black - Cat. No. 063000499B, White - Cat. No. 063000499W
Test Plug Fig. 0630TSTPLG

Fig 0632 Spare Splash Guards:

Style 1: Black - Cat. No. 0592B1099A, White - Cat. No. 0592W1099A, Style 2: Black - Cat. No. 0592B2099A, White - Cat. No. 0592W2099A.



NEW PRODUCT

Fig. 0592
Style 1

Fig. 0592 - 90° Angled Tank Vent with Swivel Elbow
Design Allows Elbow to be Rotated to any Position

CONSTRUCTION:

- Black or White Polymer Splash Guard
- Two Styles of Splash Guards
- Removable 30 Mesh Stainless Steel Wire Screen Flame Arrestor (for use with gasoline applications)
- Zinc Alloy Elbow

NEW PRODUCT

Fig. 0592
Style 2

Ordering Information

Splash Guard Style	Splash Guard Color	Hose Size Inches	Max. Hull Thickness Inches	OEM Bulk Pkg. 50 Pcs.	Ship Wt. Carton Lbs. OEM Bulk
Style 1	Black	5/8	5/8	0592014BLK	12.0
Style 1	White	5/8	5/8	0592014WHT	12.0
Style 2	Black	5/8	5/8	0592024BLK	12.0
Style 2	White	5/8	5/8	0592024WHT	12.0

Fig 0592 Spare Splash Guard Style 1: Black - Cat. No. 0592B1099A, White - Cat. No. 0592W1099A
Fig 0592 Spare Splash Guard Style 2: Black - Cat. No. 0592B2099A, White - Cat. No. 0592W2099A



Style 1 Mounted



Style 2 Mounted



Fig. 0597

Fig. 0597 - Straight Tank Vent

Fig. 0598 - 90° Angled Tank Vent with Swivel Elbow
Design Allows Elbow to be Rotated to any Position

CONSTRUCTION:

- Stainless Steel Escutcheons with Black or White Polymer Splash Guard
 - Removable 30 Mesh Stainless Steel Wire Screen Flame Arrestor (for use with gasoline applications)
- Fig 0598: Zinc Alloy Elbow

Ordering & Tech Information

Style	Color	Hose Size Inches	Max. Hull Thickness Inches	Dealer Pkg. 5 Cards 1 Pc. per Card	OEM Bulk Pkg. 50 Pcs.	Ship Wt. Carton Lbs. DP/OEM Bulk
Straight	Black	5/8	5/8	0597DP4BLK	0597004BLK	1.8/14.0
Straight	White	5/8	5/8	0597DP4WHT	0597004WHT	1.8/14.0
90° Angle	Black	5/8	5/8	0598DP4BLK	0598004BLK	1.7/14.7
90° Angle	White	5/8	5/8	0598DP4WHT	0598004WHT	1.7/14.7

Spare Splash Guard Cap: Black, Cat. No. 0570B0099A, White, Cat. No. 0570W0099A

Fig. 0598

Note: All of the Above Vents are Designed to Meet the Requirements of U.S.C.G. Safety Standards January 31, 1977, for Gasoline Fuel Systems 33 CFR 183.



Fig. 0570 - Straight Tank Vent
Fig. 0571 - 90° Angled Tank Vent with Swivel Elbow
Design Allows Elbow to be Rotated to any Position

CONSTRUCTION:

- Fig. 0570: Chrome Plated Zinc Alloy with Black or White Polymer Cap
- Fig. 0571: Zinc Alloy Elbow
- Removable 30 Mesh Stainless Steel Wire Screen Flame Arrestor (for use with gasoline applications)



Fig. 0570



Fig. 0571

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Ordering Info

Style	Color	Hose Size Inches	Max. Hull Thickness Inches	Dealer Pkg. 10 Cards 1 Pc. per Card	OEM Bulk Pkg. 50 Pcs.	Ship Wt. Carton Lbs. DP/OEM Bulk
Straight	Black	5/8	3/4	0570DP4BLK	0570004BLK	2.4/9.5
Straight	White	5/8	3/4	0570DP4WHT	0570004WHT	2.4/9.5
90° Angle	Black	5/8	3/4	0571DP4BLK	0571004BLK	2.4/9.3
90° Angle	White	5/8	3/4	0571DP4WHT	0571004WHT	2.4/9.3

Spare Splash Guard Cap: Black, Cat. No. 0570B0099A, White, Cat. No. 0570W0099A

Fig. 0506 - Straight Tank Vent
Fig. 0561 - 90° Angled Tank Vent with Swivel Elbow
Design Allows Elbow to be Rotated to any Position

CONSTRUCTION:

- Fig. 0506: Chrome Plated Zinc Alloy with Black or White Polymer Splash Guard
- Fig. 0561: Zinc Alloy Elbow
- Removable 30 Mesh Stainless Steel Wire Screen Flame Arrestor (for use with gasoline applications)



Fig. 0506



Fig. 0561



Ordering Info

Style	Color	Hose Size Inches	Max. Hull Thickness Inches	Dealer Pkg. 10 Cards 1 Pc. per Card	OEM Bulk Pkg. 50 Pcs.	Ship Wt. Carton Lbs. DP/OEM Bulk
Straight	Black	5/8	3/4	0506DP4CHR	0506004CHR	2.1/8.1
Straight	White	5/8	3/4	0506DP4WHT	0506004WHT	2.1/8.1
90° Angle	Black	5/8	1	0561DP4CHR	0561004CHR	2.8/11.5
90° Angle	White	5/8	1	0561DP4WHT	0561004WHT	2.8/11.5

Splash Guard Black: Cat. No. 0518000BLK Splash Guard White: Cat. No. 0518000WHT

Note: All of the Above Vents are Designed to Meet the Requirements of U.S.C.G. Safety Standards January 31, 1977, for Gasoline Fuel Systems 33 CFR 183.



Fig. 0509

Fig. 0509 - Tank Vent

CONSTRUCTION:

- Chrome Plated Bronze
- Removable 30 Mesh Stainless Steel Wire Screen Flame Arrestor (for use with gasoline applications)

Ordering & Tech Information

Hose Size Inches	Max. Hull Thickness Inches	Dealer Pkg. 5 Cards 1 Pc. per Card	OEM Bulk Pkg. 50 Pcs.	Ship Wt. Carton Lbs. DP/OEM Bulk
5/8	3/4	0509DP4CHR	0509004CHR	1.3/10.4
3/4	5/8	0509DP5CHR	0509005CHR	1.6/13.4



Fig. 0503

Fig. 0503 - Tank Vent

CONSTRUCTION:

- Chrome Plated Bronze
- Removable 30 Mesh Stainless Steel Wire Screen Flame Arrestor (for use with gasoline applications)

Ordering & Tech Information

Thread Size Inches	Max. Hull Thickness Inches	Dealer Pkg. 5 Cards 1 Pc. per Card	OEM Bulk Pkg. 50 Pcs.	Ship Wt. Carton Lbs. DP/OEM Bulk
3/8	7/8	0503DP3CHR	0503003CHR	2.1/16.0
1/2	7/8	0503DP4CHR	0503004CHR	1.9/15.5



Fig. 0515

Fig. 0515 - Tank Vent

CONSTRUCTION:

- Chrome Plated Bronze
- Removable 30 Mesh Stainless Steel Wire Screen Flame Arrestor (for use with gasoline applications)

Ordering & Tech Information

Thread Size Inches	Max. Hull Thickness Inches	Dealer Pkg. 5 Cards 1 Pc. per Card	OEM Bulk Pkg. 50 Pcs.	Ship Wt. Carton Lbs. DP/OEM Bulk
3/8	5/8	0515DP3CHR	0515003CHR	1.1/8.9
1/2	5/8	0515DP4CHR	0515004CHR	1.3/10.5



Fig. 0505

Fig. 0505 - Tank Vent

CONSTRUCTION:

- Chrome Plated Cast Bronze
- Removable 30 Mesh Stainless Steel Wire Screen Flame Arrestor (for use with gasoline applications)

Designed to meet the requirements of the National Fire Protection Association Booklet No. 302, Section No. 323 on vent pipe outlets. The 1/2 inch N.P.T. is off center to create a water baffle.

Ordering Info

Dealer Pkg. 10 Cards 1 Pc. per Card	OEM Bulk Pkg. 50 Pcs.	Ship Wt. Carton Lbs. DP/OEM Bulk
0505DP0CHR	0505000CHR	2.5/10.8

Tech Info

O.D. Flange: 2-1/2"
O.D. Neck: 1-3/16"
Length Neck: 1-1/2"
Screw Size: #8

Note: All of the Above Vents are Designed to Meet the Requirements of U.S.C.G. Safety Standards January 31, 1977, for Gasoline Fuel Systems 33 CFR 183.



EPA GAS DECK FILLS AND MATCHING DIESEL, WATER & WASTE FILLS FOR 1-1/2" HOSE



Figs. 0660 & 0661 Sealed Ratcheting Cap Gas Fills with Vacuum Pressure Relief (VPR)

CONSTRUCTION:

- Chrome Plated Bronze Cap
- Black Polymer Body
- EPA Compliant Sealed Cap with Vacuum Pressure Relief Valve



Sealed Cap with VPR Valve



Fig. 0661 Straight



Fig. 0660 Angled

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EPA Compliant Sealed Fuel Fill Ordering Information

Type	Neck	Sealed Cap Material	Dealer Pkg. - 5 Cards	OEM Bulk Pkg. 25 Pcs.	Ship Wt. Lbs. DP/OEM Bulk
Gas	Angled	Chrome	With VPR 0660DPGCHR	0660G00CHR	4.5/16.8
Gas	Straight	Chrome	With VPR 0661DPGCHR	0661G00CHR	4.5/16.1

For Spare Cap Ordering Information See Page E-37

Tech Info

For Hose Size: 1-1/2"
 For Vent Hose: 5/8"
 O.D. Flange: 3-3/8"
 Neck Length: 2-7/16"
 Mounting Hole Dia.: 2-1/8"
 Screw Size: #8

These fills meet the CARB and EPA requirements of U.S.C.G. Safety Standards (July 31, 2011) for 40 CFR Parts 9, 60, 80 et al. Control of Diurnal Emissions From Nonroad Spark-Ignition Engines and Equipment.

Figs. 0540 & 0541 - Vented Diesel & Water Fills Patent Nos. 5,275,213 & 5,327,946

Fig. 0557 - Non-Vented Fuel & Water Fills Fig. 0556 - Waste Deck Plate

CONSTRUCTION:

- Chrome Plated Bronze Cap and Black Polymer Body
- Stainless Steel Bead Chain (except for Waste)
- Integral Tank Vent with Flame Arrestor and Anti Surge Valve (on diesel only)
- Deck Plate Key and O-Ring Included



Fig. 0556 Waste

Figs. 0557 Fuel or Water



Fig. 0540 Water

Fig. 0541 Diesel

Ordering Info

Type	Neck	Cap Material	Dealer Pkg. 5 Cards	OEM Bulk Pkg. 25 Pcs.	Ship Wt. Carton Lbs. DP/OEM Bulk
Vented					
Diesel	Angled	Chrome	0540DPDCHR*	0540D00CHR*	4.2/15.1
Diesel	Straight	Chrome	0541DPDCHR*	0541D00CHR*	4.1/15.0
Water	Angled	Chrome	0540DPWCHR	0540W00CHR	4.2/15.1
Water	Straight	Chrome	0541DPWCHR	0541W00CHR	4.1/14.9
Non-Vented					
Diesel	Straight	Chrome	0557DPDCHR	0557D00CHR	4.0/18.0
Water	Straight	Chrome	0557DPWCHR	0557W00CHR	4.0/18.0
Waste	Straight	Chrome	0556DPOCHR**	0556000CHR**	3.8/17.5

Tech Info

For Hose Size: 1-1/2"
 Screw Size: #8
 Mounting Hole Dia.: 2-1/8"
 O.D. Flange: 3-3/8"
Vented
 For Vent Hose: 5/8"
 Neck Length: 2-7/16"
Non-Vented
 Neck Length: 3-1/8"



Fig. 1247



SPARE PARTS ORDERING INFORMATION

Diesel Cap, O-Ring & Retainer: 0540DPD99A
 Water Cap, O-Ring & Retainer: 0540DPW99A
 Waste Cap with O-Ring: 0556DP099A
 Deck Plate Key: 1247DP0BLK
 O-Ring Only: 054000099B

**NOTE: Fig. 0556 Complies with Adopted Standards on "Fittings" A.B.Y.C. Recommended Practices Standards Covering Sewage Holding and/or Treatment Devices for Marine Waste Systems.



*Note: Consider using the Mounting Ring (Fig. 0540DPBRLK) for all installations. DP package includes mounting ring. See Page E-34





Figs. 0780 & 0781 Sealed Ratcheting Cap Gas Fills with Vacuum Pressure Relief (VPR) and Color Coded Metallic Insert

CONSTRUCTION:

- Chrome Plated Bronze or Stainless Steel Scalloped Cap with Color Coded Metallic Insert
- Black Polymer Body and Tether
- EPA Compliant Sealed Cap with Vacuum Pressure Relief Valve
- Deck Plate Key Included

Fig. 0780



Fig. 0781



Sealed Cap with VPR Valve



Fig. 1241



***Note:** Consider using the Mounting Ring (Fig. 0540DPRBLK) for all installations. DP package includes mounting ring. See Page E-34

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EPA Compliant Sealed Fuel Fill Ordering Information

Type	Neck	Sealed Cap		Dealer Pkg. - 5 Cards		OEM Bulk Pkg.	Ship Wt. Lbs. DP/OEM Bulk
		Material	Type	1 Pc. per Card	25 Pcs.		
Gas	Angled	Chrome	With VPR	0780DPGCHR	0780G00CHR	4.5/16.9	
Gas	Angled	Stainless	With VPR	0780DPGSTS	0780G00STS	4.3/16.2	
Gas	Straight	Chrome	With VPR	0781DPGCHR	0781G00CHR	4.5/17.4	
Gas	Straight	Stainless	With VPR	0781DPGSTS	0781G00STS	4.3/16.6	

Tech Info

For Hose Size: 1-1/2"
 For Vent Hose: 5/8"
 O.D. Flange: 3-3/8"
 Neck Length: 2-7/16"
 Mounting Hole Dia.: 2-1/8"
 Screw Size: #8

For Spare Cap Ordering Information See Page E-37

These fills meet the CARB and EPA requirements of U.S.C.G. Safety Standards (July 31, 2011) for 40 CFR Parts 9, 60, 80 et al. Control of Diurnal Emissions From Nonroad Spark-Ignition Engines and Equipment.

Figs. 0580 & 0581 - Vented Fills for Diesel or Water with Color Coded Metallic Insert

Patent Nos. 5,275,213 & 5,327,946

CONSTRUCTION:

- Chrome Plated Bronze or Stainless Steel Scalloped Cap
- Integral Tank Vent with Flame Arrestor and Anti Surge Valve
- Color Coded Metallic Inserts
- Black Polymer Body and Tether
- Deck Plate Key Included

Fig. 0580 Water



Fig. 0581 Diesel



Fig. 1241



***Note:** Consider using the Mounting Ring (Fig. 0540DPRBLK) for all installations. See Page E-34

Ordering Info

Type	Neck	Cap		OEM Bulk Pkg.	Ship Wt. Carton Lbs.
		Material	Type	25 Pcs.	OEM Bulk
Diesel	Angled	Chrome	With VPR	0580D00CHR*	17.2
Diesel	Angled	Stainless	With VPR	0580D00STS*	15.8
Diesel	Straight	Chrome	With VPR	0581D00CHR*	17.2
Diesel	Straight	Stainless	With VPR	0581D00STS*	15.8
Water	Angled	Chrome	With VPR	0580W00CHR	17.2
Water	Angled	Stainless	With VPR	0580W00STS	15.8
Water	Straight	Chrome	With VPR	0581W00CHR	17.2
Water	Straight	Stainless	With VPR	0581W00STS	15.8

Tech Info

For Hose Size: 1-1/2"
 Screw Size: #8
 Mounting Hole Dia.: 2-1/8"
 O.D. Flange: 3-3/8"
 For Vent Hose: 5/8"
 Neck Length: 2-7/16"

SPARE PARTS ORDERING INFORMATION

Metallic Insert Kit 0030DP0006 (Includes 4 inserts: Gas, Diesel, Water & Waste)
 Deck Plate Key 1241DP0BLK

COLOR CODED METALLIC INSERTS





DIESEL, WATER AND WASTE DECK FILLS FOR 1-1/2" HOSE

Fig. 0551 - Non-Vented Diesel & Water Fills with Color Coded Metallic Inserts

CONSTRUCTION:

- Chrome Plated Bronze or Stainless Steel Scalloped Cap
- Color Coded Metallic Insert for Diesel or Water
- Black Polymer Body and Tether
- Deck Plate Key Included



Fig. 0551

Ordering Info			
Type	Cap Material	OEM Bulk Pkg. 25 Pcs.	Ship Wt. Carton Lbs. OEM Bulk
Diesel	Chrome	0551D00CHR	20.5
Diesel	Stainless	0551D00STS	18.0
Water	Chrome	0551W00CHR	20.5
Water	Stainless	0551W00STS	18.0

Tech Info
For Hose Size: 1-1/2"
Neck Length: 3-1/8"
O.D. Flange: 3-3/8"
Mounting Hole Dia.: 2-1/8"
Screw Size: #8

SPARE PARTS ORDERING INFORMATION
 Metallic Insert Kit 0030DP0006
 (Includes 4 inserts: Gas, Diesel, Water & Waste)
 Deck Plate Key 1241DP0BLK

COLOR CODED METALLIC INSERTS



Fig. 1241



Fig. 0568 - Waste Deck Plate with Color Coded Metallic Insert

CONSTRUCTION:

- Chrome Plated Bronze or Stainless Steel Scalloped Cap
- Color Coded Metallic Insert
- Black Polymer Body and Tether
- Deck Plate Key Included



Fig. 0568

Ordering Info			
Type	Cap Material	OEM Bulk Pkg. 25 Pcs.	Ship Wt. Carton Lbs. OEM Bulk
Waste	Chrome	0568000CHR	19.5
Waste	Stainless	0568000STS	18.1

Tech Info
For Hose Size: 1-1/2"
O.D. Flange: 3-3/8"
Neck Length: 3-1/8"
Mounting Hole Dia.: 2-1/8"
Screw Size: #8



Fig. 1241

NOTE: This Item Complies with Adopted Standards on "Fittings" A.B.Y.C. Recommended Practices Standards Covering Sewage Holding and/or Treatment Devices for Marine Waste Systems.



Fig. 0782



Fig. 0783

Figs. 0782 & 0783 Sealed Ratcheting Cap Gas Fills with Vacuum Pressure Relief (VPR) and Resin Insert

CONSTRUCTION:

- Chrome Plated Bronze or Stainless Steel Scalloped Cap with Color Coded Resin Insert
- Black Polymer Body and Tether
- EPA Compliant Sealed Cap with Vacuum /Over Pressure Relief Valve



***Note:** Consider using the Mounting Ring (Fig. 0540DPRBLK) for all installations. DP package includes mounting ring. See Page E-34

EPA Compliant Sealed Fuel Fill Ordering Information

Type	Neck	Sealed Cap Material	Dealer Pkg. - 5 Cards Type	1 Pc. per Card	OEM Bulk Pkg. 25 Pcs.	Ship Wt. Lbs. DP/OEM Bulk
Gas	Angled	Chrome	With VPR	0782DPGCHR	0782G00CHR	4.5/18.0
Gas	Angled	Stainless	With VPR	0782DPGSTS	0782G00STS	4.3/17.0
Gas	Straight	Chrome	With VPR	0783DPGCHR	0783G00CHR	4.5/18.0
Gas	Straight	Stainless	With VPR	0783DPGSTS	0783G00STS	4.3/17.0

Tech Info

For Hose Size: 1-1/2"
 For Vent Hose: 5/8"
 O.D. Flange: 3-3/8"
 Neck Length: 2-7/16"
 Mounting Hole Dia.: 2-1/8"
 Screw Size: #8

For Spare Cap Ordering Information See Page E-37

These fills meet the CARB and EPA requirements of U.S.C.G. Safety Standards (July 31, 2011) for 40 CFR Parts 9, 60, 80 et al. Control of Diurnal Emissions From Nonroad Spark-Ignition Engines and Equipment.

Figs. 0582 & 0583 - Vented Fills for Diesel or Water with Color Coded Resin Insert

Patent Nos. 5,275,213 & 5,327,946

Fig. 0582 Diesel



Fig. 0583 Water

CONSTRUCTION:

- Chrome Plated Bronze or Stainless Steel Scalloped Cap
- Integral Tank Vent with Flame Arrestor and Anti Surge Valve
- Color Coded Resin Insert
- Black Polymer Body and Tether
- Deck Plate Key Included



Fig. 1241



***Note:** Consider using the Mounting Ring (Fig. 0540DPRBLK) for all installations. DP package includes mounting ring. See Page E-34

Ordering Info

Type	Neck	Cap Material	Dealer Pkg.** 5 Cards 1 Pc. per Card	OEM Bulk Pkg. 25 Pcs.	Ship Wt. Carton Lbs. DP/OEM Bulk
Diesel	Angled	Chrome	0582DP0CHR	0582D00CHR*	4.5/17.2
Diesel	Angled	Stainless	-----	0582D00STS*	--/15.8
Diesel	Straight	Chrome	0583DP0CHR	0583D00CHR*	4.5/17.2
Diesel	Straight	Stainless	-----	0583D00STS*	--/15.8
Water	Angled	Chrome	0582DP0CHR	0582W00CHR	4.5/17.2
Water	Angled	Stainless	-----	0582W00STS	--/15.8
Water	Straight	Chrome	0583DP0CHR	0583W00CHR	4.5/17.2
Water	Straight	Stainless	-----	0583W00STS	--/15.8

Tech Info

For Hose Size: 1-1/2"
 For Vent Hose: 5/8"
 O.D. Flange: 3-3/8"
 Neck Length: 2-7/16"
 Mounting Hole Dia.: 2-1/8"
 Screw Size: #8

****Note:** DP Pkg. includes fill, cap and 3 inserts (Gas, Diesel & Water). Use Gas insert on fill only with Non-EPA Compliant fuel systems.

SPARE PARTS ORDERING INFORMATION

Cap, O-Ring & Retainer: 0582DPC99A (Includes 3 Resin inserts: Gas, Diesel & Water)
 Resin Insert Kit: 0030DP0004 (includes 4 inserts: Gas, Diesel, Water & Waste)
 Deck Plate Key: 1241DP0BLK.

COLOR CODED RESIN INSERTS





DIESEL, WATER AND WASTE DECK FILLS FOR 1-1/2" HOSE

Fig. 0552 - Non-Vented Diesel & Water Fills with Color Coded Resin Insert

CONSTRUCTION:

- Chrome Plated Bronze or Stainless Steel Scalloped Cap
- Color Coded Resin Insert
- Black Polymer Body and Tether
- Deck Plate Key Included



Fig. 0552

DEALER PACKAGE INCLUDES 4 COLOR CODED RESIN INSERTS



Ordering Info				
Type	Cap Material	Dealer Pkg.** 5 Cards 1 Pc per Card	OEM Bulk Pkg. 25 Pcs.	Ship Wt. Carton Lbs. OEM Bulk
Diesel	Chrome	0552DP0CHR	0552D00CHR	19.8
Water	Chrome	0552DP0CHR	0552W00CHR	19.8
Diesel	Stainless	-----	0552D00STS	18.5
Water	Stainless	-----	0552W00STS	18.5

Tech Info
For Hose Size: 1-1/2" O.D. Flange: 3-3/8" Neck Length: 3-1/8" Mounting Hole Dia.: 2-1/8" Screw Size: #8
**Note: DP Pkg. includes fill, cap and 4 inserts (Gas, Diesel, Water & Waste).



Fig. 1241

SPARE PARTS ORDERING INFORMATION

Spare Cap (Non-Vented): 0552DPC99A (includes 4 inserts)
Resin Insert Kit: 0030DP0004 (includes 4 inserts)
Deck Plate Key: 1241DP0BLK



Fig. 0569 - Waste Deck Plate with Color Coded Resin Insert

CONSTRUCTION:

- Chrome Plated Bronze or Stainless Steel Scalloped Cap
- Color Coded Resin Insert
- Black Polymer Body and Tether
- Deck Plate Key Included



Fig. 0569

Ordering Info			
Type	Cap Material	OEM Bulk Pkg. 25 Pcs.	Ship Wt. Carton Lbs. OEM Bulk
Waste	Chrome	0569000CHR	19.6
Waste	Stainless	0569000STS	18.2

Tech Info
For Hose Size: 1-1/2" O.D. Flange: 3-3/8" Neck Length: 3-1/8" Mounting Hole Dia.: 2-1/8" Screw Size: #8



Fig. 1241

SPARE PARTS ORDERING INFORMATION

Spare Cap (Non-Vented): 0552DPC99A (includes 4 inserts)
Resin Insert Kit: 0030DP0004 (includes 4 inserts)
Deck Plate Key: 1241DP0BLK

NOTE: This Item Complies with Adopted Standards on "Fittings" A.B.Y.C. Recommended Practices Standards Covering Sewage Holding and/or Treatment Devices for Marine Waste Systems.

EPA GAS DECK FILLS AND MATCHING DIESEL, WATER AND WASTE FILLS FOR 1-1/2" HOSE



Fig. 0790



Fig. 0791



Sealed Cap with VPR Valve

Figs. 0790 & 0791 Sealed Ratcheting Cap Gas Fills with Vacuum Pressure Relief (VPR)

CONSTRUCTION:

- Chrome Plated Bronze Cap
- Black Polymer Body
- EPA Compliant Sealed Cap with Vacuum Pressure Relief Valve
- Deck Plate Key Not Required

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EPA Compliant Sealed Fuel Fill Ordering Information

Type	Neck	Sealed Cap Material	Dealer Pkg. - 5 Cards Type	1 Pc. per Card	OEM Bulk Pkg. 25 Pcs.	Ship Wt. Lbs. DP/OEM Bulk
Gas	Angled	Chrome	With VPR	0790DPGCHR	0790G00CHR	4.5/18.5
Gas	Straight	Chrome	With VPR	0791DPGCHR	0791G00CHR	4.5/18.9

For Spare Cap Ordering Information See Page E-37

Tech Info

For Hose Size: 1-1/2"
 For Vent Hose: 5/8"
 O.D. Flange: 3-3/8"
 Neck Length: 2-7/16"
 Mounting Hole Dia.: 2-1/8"
 Screw Size: #8

These fills meet the CARB and EPA requirements of U.S.C.G. Safety Standards (July 31, 2011) for 40 CFR Parts 9, 60, 80 et al. Control of Diurnal Emissions From Nonroad Spark-Ignition Engines and Equipment.

Figs. 0590 & 0591 - Vented Diesel & Water Fills

Patent Nos. 5,275,213 & 5,327,946

Fig. 0564 - Non-Vented Diesel & Water Fills

Fig. 0563 - Waste Deck Plate

CONSTRUCTION:

- Chrome Plated Bronze Cap
- Black Polymer Body
- Stainless Steel Bead Chain (except for Waste)
- Integral Tank Vent with Flame Arrestor and Anti Surge Valve (on diesel only)
- Deck Plate Key Not Required



Fig. 0590 Diesel & Water



Fig. 0591 Diesel & Water



Fig. 0564 Diesel & Water



Fig. 0563 Waste

Ordering Info

Type	Neck	Vented	Cap Material	Dealer Pkg. 5 Cards 1 Pc. per Card	OEM Bulk Pkg. 25 Pcs.	Ship Wt. Carton Lbs. DP/OEM Bulk
Diesel	Angled	Yes	Chrome	0590DPDCHR*	0590D00CHR*	5.0/18.9
Diesel	Straight	Yes	Chrome	0591DPDCHR*	0591D00CHR*	5.0/18.1
Diesel	Strght	No	Chrome	0564DPDCHR*	0564D00CHR*	5.0/21.0
Water	Angled	Yes	Chrome	0590DPWCHR	0590W00CHR	5.0/18.7
Water	Straight	Yes	Chrome	0591DPWCHR	0591W00CHR	5.0/17.5
Water	Strght	No	Chrome	0564DPWCHR	0564W00CHR	5.0/21.0
Waste	Strght	No	Chrome	0563DP0CHR	0563000CHR	5.0/17.5

Tech Info

For Hose Size: 1-1/2"
 Screw Size: #8
 Mounting Hole Dia.: 2-1/8"
 O.D. Flange: 3-3/8"
Vented
 For Vent Hose: 5/8"
 Neck Length: 2-7/16"
Non-Vented
 Neck Length: 3-1/8"



*Note: Consider using the Mounting Ring (Fig. 0540DPRBLK) for all installations. DP package includes mounting ring. See Page E-34

SPARE PARTS ORDERING INFORMATION

Figs. 0590/0591 Gas Cap, O-Ring & Retainer: 0590DPG99A Figs. 0564/0590/0591 Diesel Cap, O-Ring & Retainer: 0590DPD99A
 Figs. 0564/0590/0591 Water Cap, O-Ring & Retainer: 0590DPW99A Fig. 0563 Waste Cap with O-Ring: 0563DP099A
 O-Ring Only: 054000099B

NOTE: Fig. 0563 Complies with Adopted Standards on "Fittings" A.B.Y.C. Recommended Practices Standards Covering Sewage Holding and/or Treatment Devices for Marine Waste Systems.





EPA GAS DECK FILLS AND MATCHING WATER FILLS FOR 1-1/2" HOSE

Figs. 0662 & 0663 Sealed Ratcheting Cap Gas Fills with Vacuum Pressure Relief (VPR)

CONSTRUCTION:

- Black or White Polymer Cap
- Black Polymer Body
- EPA Compliant Sealed Cap with Vacuum Pressure Relief Valve
- Deck Plate Key Not Required



Sealed Cap with VPR Valve



Fig. 0663

Fig. 0662



EPA Compliant Sealed Fuel Fill Ordering Information

Type	Neck	Sealed Cap Material	Dealer Pkg. - 5 Cards Type	1 Pc. per Card	OEM Bulk Pkg. 25 Pcs.	Ship Wt. Lbs. DP/OEM Bulk
Gas	Angled	Blk Polymer	With VPR	0662DPGBLK	0662G00BLK	3.0/10.3
Gas	Angled	Wht Polymer	With VPR	0662DPGWHT	0662G00WHT	3.0/10.3
Gas	Straight	Blk Polymer	With VPR	0663DPGBLK	0663G00BLK	3.0/11.2
Gas	Straight	Wht Polymer	With VPR	0663DPGWHT	0663G00WHT	3.0/11.2

Tech Info

For Hose Size: 1-1/2"
For Vent Hose: 5/8"
O.D. Flange: 3-3/8"
Neck Length: 2-7/16"
Mounting Hole Dia.: 2-1/8"
Screw Size: #8

For Spare Cap Ordering Information See Page E-37

These fills meet the new CARB and EPA requirements of U.S.C.G. Safety Standards (July 31, 2011) for 40 CFR Parts 9, 60, 80 et al. Control of Diurnal Emissions From Nonroad Spark-Ignition Engines and Equipment.

Figs. 0542 & 0543 - Vented Water Fills - Patent Nos. 5,275,213 & 5,327,946

CONSTRUCTION:

- Black or White Polymer Cap with Black Polymer Body & Strap
- Integral Tank Vent with Flame Arrestor and Anti Surge Valve
- Fig. 1247 Deck Plate Key Included



Fig. 1247



Fig. 0543 Water



Fig. 0542 Water

Ordering Info

Type	Neck	Cap Material	Dealer Pkg. 5 Cards 1 Pc. per Card	OEM Bulk Pkg. 25 Pcs.	Ship Wt. Carton Lbs. DP/OEM Bulk
Water	Angled	Black Poly	0543DPWBK	0543W00BLK	3.0/9.2
Water	Straight	Black Poly	0542DPWBK	0542W00BLK	3.0/9.2

Tech Info

For Hose Size: 1-1/2"
For Vent Hose: 5/8"
O.D. Flange: 3-3/8"
Neck Length: 2-7/16"
Mounting Hole Dia.: 2-1/8"
Screw Size: #8

SPARE PARTS ORDERING INFORMATION

Black Water Cap, O-Ring & Retainer: 0542DPW99B, O-Ring Only: 054000099B

Figs. 1428 & 1429 - Sealed Flip Top Cap Gas Fills with Vacuum Pressure Relief (VPR)

CONSTRUCTION:

- Black or White Polymer
- Integral Tank Vent with Flame Arrestor
- No Deck Plate Key or Ground Wire Required
- Flip Top Cap

Fig. 1428 Angled



Fig. 1429 Straight



EPA Compliant Sealed Fuel Fill Order Info

Neck	Cap Material	OEM Bulk Pkg. 25 Pcs.	Shipping Weight Lbs.
35° Angled	Blk Polymer	1428G00BLK	9.9
Straight	Blk Polymer	1429G00BLK	7.6
Straight	Wht Polymer	1429G00WHT	7.6

Tech Info

For Hose Size: 1-1/2"
For Vent Hose: 5/8"
Neck Length: 2-7/16"
Screw Size: #10



These fills meet the CARB and EPA requirements of U.S.C.G. Safety Standards (July 31, 2011) for 40 CFR Parts 9, 60, 80 et al. Control of Diurnal Emissions From Nonroad Spark-Ignition Engines and Equipment.



Fig. 0577



Alternative Style Cap Available. Contact Factory.

Fig. 0577 - Vented Fuel Fill for 2 Inch Hose

Patent No. 5,275,213

CONSTRUCTION:

- Chrome Plated Bronze
- Integral Tank Vent with Flame Arrestor
- Deck Plate Key, O-Ring and Integral Retainer on Cap Included
- Ground Wire Required

AVAILABLE IN

Aluminum-Alloy
 For Complete Ordering Info: See Pgs R-183-184



Fig. 1247

Ordering Info		
Type	Std. Pkg. - 1 Pc.	Ship Wt. Carton Lbs. Std Pkg
Gas	0577G00CHR*	2.0
Diesel	0577D00CHR	2.0

Tech Info
For Fuel Hose: 2"
For Vent Hose: 5/8"
Neck Length: 3-5/8"
Screw Size: #8



Fig. 0579



Alternative Style Cap Available. Contact Factory.

Fig. 0579 - Angled Vented Fuel Fill for 2 Inch Hose

Patent No. 5,275,213

CONSTRUCTION:

- Chrome Plated Bronze
- Integral Tank Vent with Flame Arrestor
- Angled Neck
- Deck Plate Key, O-Ring and Integral Retainer on Cap Included
- Ground Wire Required

AVAILABLE IN

Aluminum-Alloy
 For Complete Ordering Info: See Pgs R-183-184



Fig. 1247

Ordering Info		
Type	Std. Pkg. - 1 Pc.	Ship Wt. Carton Lbs. Std. Pkg.
Gas	0579G00CHR*	2.5
Diesel	0579D00CHR	2.4

Tech Info
For Fuel Hose: 2"
For Vent Hose: 5/8"
Neck Length: 4-3/4"
Screw Size: #8



Fig. 0576



Fig. 1247

Fig. 0576 - Non Vented Fuel Fill for 2" Hose

CONSTRUCTION:

- Chrome Plated Bronze
- Deck Plate Key, O-Ring and Retainer on Cap Included
- Ground Wire Required

Ordering Info		
Type	Std. Pkg. 1 Pc.	Ship Wt. Carton Lbs. Std. Pkg.
Gas	0576G00CHR*	1.2
Diesel	0576D00CHR	1.2

Tech Info
For Hose Size: 2"
O.D. Flange: 3-3/8"
Neck Length: 3-5/8"
Mounting Hole Dia.: 2-1/4"
Screw Size: #8

SPARE PARTS ORDERING INFORMATION

Gas Cap & O-Ring: 0576DPG99A Diesel Cap & O-Ring: 0576DPD99A
 Retaining Ring: 0537DP2 Deck Plate Key: 1247DPOBLK

*NOTE: These Items Meet the Requirements of U.S.C.G. Safety Standards, January 31, 1977, for Gasoline Fuel Systems, 33 CFR 183. Fills shown on this page DO NOT meet the requirements for 40 CFR 1060 sub part B Emissions Standards and Related Requirements.



NON-EPA STYLE GAS FILLS AND REPLACEMENT FLIP-TOP CAP FOR 1-1/2" HOSE

Figs. 0540, 0541, 0542, 0543, 0580, 0581, 0582, 0583, 0590 & 0591 - Vented Gas Fills

Patent Nos. 5,275,213 & 5,327,946

CONSTRUCTION:

- Black Polymer Body with Stainless Steel Bead Chain (except Figs. 0542 & 0543)
- Integral Tank Vent with Flame Arrestor and Anti Surge Valve
- Deck Plate Key Included

Figs. 0580, 0581, 0582 & 0583

- Chrome Plated Bronze or Stainless Steel Scalloped Cap
- Figs. 0580 & 0581 Color Coded Metallic Insert
- Figs. 0582 & 0583 Color Coded Resin Insert



Fig. 0580 Fig. 0581 Fig. 0582 Fig. 0583

Fig. 0540



*Note: Consider using the Mounting Ring (Fig. 0540DPBRLK) for all installations. DP package includes mounting ring. See Page E-34



Fig. 1247 Fig. 1241

Figs. 0540, 0541, 0590 & 0591
Chrome Plated Bronze Cap



Fig. 0541

Fig. 0590

Fig. 0591

Figs. 0542 & 0543

- Black or White Polymer Top with Polymer Tether



Fig. 0542

Fig. 0543

Ordering Info - Non-EPA Vented Gas Fills

Type	Neck	Cap Material	Dealer Pkg - 5 Cds 1 Pc. per Card	OEM Bulk Pkg. 25 Pcs.	Ship Wt. Carton Lbs. DP/OEM Bulk
Gas	Angled	Chrome	0540DPGCHR*	0540G00CHR*	4.2/15.7
Gas	Angled	Black Poly	0542DPGBLK*	0542G00BLK*	3.0/9.2
Gas	Angled	White Poly	0542DPGWHT*	0542G00WHT*	3.0/9.2
Gas	Angled	Chrome	-----	0580G00CHR*	---/17.2
Gas	Angled	Stainless	-----	0580G00STS*	---/15.8
Gas	Angled	Chrome	0582DP0CHR*	0582G00CHR*	4.5/17.2
Gas	Angled	Stainless	-----	0582G00STS*	---/15.8
Gas	Angled	Chrome	0590DPGCHR*	0590G00CHR*	5.0/18.9
Gas	Straight	Chrome	0541DPGCHR*	0541G00CHR*	4.1/15.2
Gas	Straight	Black Poly	0543DPGBLK*	0543G00BLK*	3.0/9.2
Gas	Straight	White Poly	0543DPGWHT*	0543G00WHT*	3.0/9.2
Gas	Straight	Chrome	-----	0581G00CHR*	---/17.2
Gas	Straight	Stainless	-----	0581G00STS*	---/15.8
Gas	Straight	Chrome	0583DP0CHR*	0583G00CHR*	4.5/17.2
Gas	Straight	Stainless	-----	0583G00STS*	---/15.8
Gas	Straight	Chrome	0591DPGCHR*	0591G00CHR*	5.0/18.6

Tech Info

For Hose Size: 1-1/2"
For Vent Hose: 5/8"
O.D. Flange: 3-3/8"
Neck Length: 2-7/16"
Mounting Hole Dia.: 2-1/8"
Screw Size: #8

AVAILABLE IN



For Complete Ordering Info: See Pgs R-183-184

NOTICE:

Fig. 0795 NOT for replacement of any ratcheting (and/or EPA style) fuel caps



Use Fig. 0795 ONLY with PERKO® Vented Fills
Fig. Nos.: 0540, 0541, 0542, 0543, 0580, 0581, 0582, 0583, 0590 & 0591

Fig. 0795 - Replacement Vented Flip Top Cap for Fills with 1-1/2" Hose

CONSTRUCTION:

- Black or White Polymer
- Easily Mounts Directly on Gunnel without Removing Fill Body
- Includes Metallic Inserts for Gas, Diesel or Water Fills
- Integral Tank Vent with Flame Arrestor
- No Deck Plate Key or Ground Wire Required
- Flip Top Cap

Ordering Info

Color	Dealer Pkg. 10 Cards 1 Pc. per Card	Ship Wt. Carton Lbs. Dealer Pkg.
Black	0795DP0BLK*	2.5
White	0795DP0WHT*	2.5

Tech Info

Requires 5-1/4" Dia. Mounting Surface
Screw Size: #8

Fig. 0795 White

Fig. 0795 Black



COLOR CODED METALLIC INSERTS



NEW PRODUCT

*NOTE: These Fills Meet the Requirements of U.S.C.G. Safety Standards, January 31, 1977, for Gasoline Fuel Systems, 33 CFR 183. Fills shown on this page DO NOT meet the requirements for 40 CFR 1060 sub part B Emissions Standards and Related Requirements.



Fig. 0552

Figs. 0551, 0552, 0557 & 0564 - Non-Vented Gas Fills

CONSTRUCTION:

- Black Polymer Body with Stainless Steel Bead Chain
- Deck Plate Key Included on Figs. 0551, 0552, 0557
No Deck Plate Key Required on Fig. 0564
- Figs. 0557 & 0564: Chrome Plated Bronze Scalloped Cap
- Fig 0551 Color Coded Metallic Insert
- Fig 0552 Color Coded Resin Insert

Fig. 0551

Figs. 0551 & 0552 Chrome Plated Bronze or Stainless Steel Scalloped Cap



Fig. 0564

Fig. 0557



*Note: Consider using the Mounting Ring (Fig. 0540DPRBLK) for all installations. DP package includes mounting ring. See Page E-34

Ordering Info - Non-Vented Gas Fills

Type	Neck	Cap Type	Dealer Pkg-5 Cds 1 Pc. per Card	OEM Bulk Pkg. 25 Pcs.	Ship Wt. Carton Lbs. DP/OEM Bulk
Gas	Straight	Chrome	-----	0551G00CHR*	---/20.5
Gas	Straight	Stainless	-----	0551G00STS*	---/18.0
Gas	Straight	Chrome	0552DP0CHR*	0552G00CHR*	4.9/19.8
Gas	Straight	Stainless	-----	0552G00STS*	---/18.5
Gas	Straight	Chrome	0557DPGCHR*	0557G00CHR*	4.0/18.0
Gas	Straight	Chrome	0564DPGCHR*	0564G00CHR*	5.0/21.0

Tech Info

For Hose Size: 1-1/2"
O.D. Flange: 3-3/8"
Neck Length: 3-1/8"
Mounting Hole Dia.: 2-1/8"
Screw Size: #8

For Spare Cap Ordering Information See Page E-36

Figs. 1318 & 1319 - Vented Flip Top Cap Fills For 1-1/2" Hose

Patent No. 5,275,213

CONSTRUCTION:

- Black or White Polymer
- Integral Tank Vent with Flame Arrestor
- No Deck Plate Key or Ground Wire Required
- Flip Top Cap

Fig. 1318 - 35° Angled Neck

Fig. 1319 - Straight Neck



Fig. 1318



Fig. 1319

Ordering Info

Type	Neck	Body Color	Dealer Pkg. 10 Cds 1 Pc. per Card	OEM Bulk Pkg. 50 Pcs.	Ship Wt. Carton Lbs. DP/OEM Bulk
Gas	Angled	Black	1318DPGBLK*	1318G00BLK*	5.5/17.8
Gas	Straight	Black	1319DPGBLK*	1319G00BLK*	4.7/13.5
Gas	Straight	White	1319DPGWHT*	1319G00WHT*	4.7/14.1
Water	Straight	Black	1319DPWBLK	1319W00BLK	4.7/14.0
Water	Straight	White	1319DPWWHT	1319W00WHT	4.7/13.9

Tech Info

For Hose Size: 1-1/2"
For Vent Hose: 5/8"
Neck Length: 2-7/16"
Screw Size: #10



Fig. 1613 - Non-Vented Polymer Gas Fill for 1-1/2" Hose

CONSTRUCTION:

- Fiber Reinforced, U.V. Stabilized Black Polymer
- No Deck Plate Key or Ground Wire Required
- Easy-Grip Cap
- O-Ring and Cap Retainer Included



Fig. 1613

Ordering Info

Type	Dealer Pkg. 10 Cards 1 Pc. per Card	OEM Bulk Pkg. 50 Pcs.	Screw Size	Ship Wt. Carton Lbs. DP/OEM Bulk
Gas	1613DP0BLK*	1613000BLK*	#8	2.0/13.9

Tech Info

For Hose Size: 1-1/2"
O.D. Flange: 3-1/16"
Neck Length: 2-7/16"
Mounting Hole Dia.: 1-3/4"

Spare Parts: Cap with O-Ring and Retainer: 161300099A , O-Rings (2 per bag): 1313DP099A

*NOTE: These Items Meet the Requirements of U.S.C.G. Safety Standards, January 31, 1977, for Gasoline Fuel Systems, 33 CFR 183.

Fills shown on this page DO NOT meet the requirements for 40 CFR 1060 sub part B Emissions Standards and Related Requirements.



NON-EPA STYLE GAS FILLS AND MATCHING DIESEL, WATER, AND WASTE FILLS FOR 1-1/2" HOSE

Fig. 0520 - Non-Vented Fuel & Water Fills for 1-1/2" Hose
Fig. 0507 - Waste Deck Plate for Hose

CONSTRUCTION:

- Chrome Plated Bronze
- Deck Plate Key and O-Ring Included
- Retainer on Cap (Fig. 0520 only)
- Cap Has a Slot Between the Holes
- Ground Wire Required on Fig. 0520 Gas Fills.

**Fig. 0520
Gas, Diesel
& Water**



**Fig. 0507
Waste**



Fig. 1248

Ordering Info			
Type	Dealer Pkg. - 5 Cards 1 Pc. per Card	OEM Bulk Pkg. 25 Pcs.	Ship Wt. Carton Lbs. DP/OEM Bulk
Gas	0520DPGCHR*	0520G00CHR*	4.2/19.9
Diesel	0520DPDCHR	0520D00CHR	4.2/19.9
Water	0520DPWCHR	0520W00CHR	4.2/19.9
Waste	0507DP0CHR	0507000CHR	4.0/20.0

Tech Info
For Hose Size: 1-1/2"
O.D. Flange: 3-1/8"
Neck Length: 3-1/2"
Mounting Hole Dia.: 2-1/8"
Screw Size: #8

SPARE PARTS ORDERING INFORMATION

Fig. 0520 Cap with O-Ring and Retainer: 0520DP099A.
 Fig. 0507 Waste Cap with O-Ring: 0507DP099A.
 O-Rings Only (2 per bag): 0520DP099B Deck Plate Key: 12487-8DP.

Fig. 1270 - Non-Vented Fuel & Water Fills for 1-1/2" Hose
Fig. 1269 - Waste Deck Plate for Hose

CONSTRUCTION:

- Chrome Plated Zinc Alloy
- Black Polymer Cap
- Deck Plate Key and O-Ring Included
- Integral Retainer on Cap (Fig. 1270 only)
- Cap Has a Slot Between the Holes
- Ground Wire Required on Gas Fills

**Fig. 1270
Gas, Diesel & Water**



**Fig. 1269
Waste**



Fig. 1248

Ordering Info			
Type	Dealer Pkg. - 5 Cards 1 Pc. per Card	OEM Bulk Pkg. 25 Pcs.	Ship Wt. Carton Lbs. DP/OEM Bulk
Gas	1270DPGCHR*	1270G00CHR*	4.0/18.5
Diesel	1270DPDCHR	1270D00CHR	4.0/18.5
Water	1270DPWCHR	1270W00CHR	4.0/18.5
Waste	1269DP0CHR	1269000CHR	3.9/18.0

Tech Info
For Hose Size: 1-1/2"
O.D. Flange: 3-1/8"
Neck Length: 3-1/2"
Mounting Hole Dia.: 2-1/8"
Screw Size: #8

SPARE PARTS ORDERING INFORMATION

Fig. 1270 Gas Cap with O-Ring and Retainer: 1270DPG99A
 Fig. 1270 Diesel Cap with O-Ring and Retainer: 1270DPD99A
 Fig. 1270 Water Cap with O-Ring and Retainer: 1270DPW99A
 Fig. 1269 Waste Cap with O-Ring: 1269DP099A
 O-Rings Only (2 per bag): 0513DP8 Deck Plate Key: 12487-8DP

NOTE: Figs. 0507 & 1269 Comply with Adopted Standards on "Fittings" A.B.Y.C. Recommended Practices Standards Covering Sewage Holding and/or Treatment Devices for Marine Waste Systems.

*NOTE: These Items Meet the Requirements of U.S.C.G. Safety Standards, January 31, 1977, for Gasoline Fuel Systems, 33 CFR 183. Fills shown on this page DO NOT meet the requirements for 40 CFR 1060 sub part B Emissions Standards and Related Requirements.



Fig. 0599 - Non-Vented Gas Fill with Locking Cap for 1-1/2" Hose

Patent No. 3,828,714



Fig. 0599

CONSTRUCTION:

- Chrome Plated Bronze Flange and Black Polymer Body
- Black Polymer Locking Cap with Strap
- Grounding Screw Included
- Cap Retainer and Gasket
- Locking Cap Has a Cover for the Key Hole

Ordering Info			
	Dealer Pkg. 5 Cards	OEM Bulk Pkg. 25 Pcs.	Ship Wt. Carton Lbs. DP/OEM Bulk
Type	1 Pc. per Card		
Gas	0599DPGCHR*	0599G00CHR*	3.1/13.5
Diesel	0599DPDCHR	0599D00CHR	3.1/13.5

Tech Info
For Hose Size: 1-1/2"
O.D. Flange: 3-3/8"
Neck Length: 3-1/8"
Mounting Hole Dia.: 2-1/8"
Screw Size: #8

SPARE PARTS ORDERING INFORMATION

Cap with O-Ring and 2 Keys: 1324DP1BLK.

Figs. 1313 & 1399 - Gas Fills for 1-1/2" Hose

Patent No. 3,828,714



Fig. 1313

CONSTRUCTION:

- Chrome Plated Zinc Alloy with Black Polymer Flange
- Black Polymer Cap with Strap
- Grounding Screw Included
- Cap Retainer and Gasket
- Fig. 1399 Locking Cap Has a Cover for the Key Hole

Ordering Info			
	Dealer Pkg. 5 Cards	OEM Bulk Pkg. 50 Pcs.	Ship Wt. Carton Lbs. DP/OEM Bulk
Type	1 Pc. per Card		
Gas	1313DP0CHR*	1313000CHR*	3.1/24.7
Gas w/Lock	1399DP0CHR*	1399000CHR*	3.6/25.6

Tech Info
For Hose Size: 1-1/2"
O.D. Flange: 3-1/8"
Neck Length: 1-7/8"
Mounting Hole Dia.: 2-1/8"
Screw Size: #6

SPARE PARTS ORDERING INFORMATION

Non-Locking Cap: 0126DP0BLK Locking Cap with 2 Keys: 1324DP0BLK

Fig. 1399

Fig. 0527 - Gas Fill for 1-1/2" Hose

CONSTRUCTION:

- Chrome Plated Bronze
- 35° Angled Hose Bib
- Deck Plate Key, O-Ring and Retaining Cable on Cap Included
- Cap Has A Slot Between the Holes
- Ground Wire Required



Fig. 0527



Fig. 1247

Ordering Info		
	Standard Pkg. - 1 Pc.	Ship Wt. Carton Lbs. Std. Pkg.
Type		
Gas	0527G08CHR*	2.7

Tech Info
For Hose Size: 1-1/2"
O.D. Flange: 3-1/2"
Neck Length: 4-7/8"
Mounting Hole Dia.: 2-1/4"
Screw Size: #10

SPARE PARTS ORDERING INFORMATION

Cap with O-Ring and Retainer: 0528DP899A O-Rings Only (2 per bag): 0513DP8
Deck Plate Key: 1247DP0BLK

*NOTE: These Items Meet the Requirements of U.S.C.G. Safety Standards, January 31, 1977, for Gasoline Fuel Systems, 33 CFR 183. Fills shown on this page DO NOT meet the requirements for 40 CFR 1060 sub part B Emissions Standards and Related Requirements.



NON-EPA STYLE GAS, DIESEL, WATER, WASTE AND UNMARKED FILLS FOR PIPE

Fig. 0528 - Fuel, Water & Unmarked Fills for Pipe

Fig. 0524 - Waste Deck Plate for Pipe

CONSTRUCTION:

- Cast Bronze; Plain or Chrome Plated
- Pipe Sizes 1-1/4 and 1-1/2 Inch Caps Have a Slot Between the Holes
- Deck Plate Key and O-Ring Included
- Pipe Sizes 2, 2-1/2 and 3 Inch Have 4 Mounting Holes

Fig. 0528 Unmarked Shown in Marinium



Fig. 0528 Gas



Fig. 0528 Diesel



Fig. 0528 Water



Fig. 0524 Waste



Fig. 1248

AVAILABLE IN
MARINIUM
 Aluminum-Alloy
 For Complete Ordering
 Info: See Pgs R-183-184

Ordering & Tech Information

Pipe Size Inches	O.D. Flange Inches	Mounting Hole Dia. Inches	For Unmarked Fills		Chr. Pltd Bronze OEM Bulk Pkg. 10 Pcs.	Ship Wt. Carton Lbs. PLB/CHR/OEM Bulk
			Plain Bronze Std. Pkg. - 1 Pc.	Chr. Plated Bronze Std. Pkg. - 1 Pc.		
1	2-7/8	1-1/2	0528006PLB	0528006CHR	-----	0.8/0.8/--
1-1/4	3-5/16	2-1/8	0528007PLB	0528007CHR	-----	0.8/0.8/--
1-1/2	3-5/8	2-3/8	0528008PLB	0528DP8CHR*	0528008CHR	1.0/4.7/9.4
2	4-1/4	3	0528009PLB	0528009CHR	-----	2.0/2.1/--
2-1/2	4-5/8	3-5/8	0528010PLB	0528010CHR	-----	2.0/2.1/--
3	5-3/8	4	0528011PLB	0528011CHR	-----	3.0/3.1/--

For Gas Fills**

Pipe Size Inches	O.D. Flange Inches	Mounting Hole Dia. Inches	Plain Bronze Std. Pkg. - 1 Pc.	Chr. Plated Bronze Std. Pkg. - 1 Pc.	Chr. Plated Bronze OEM Bulk Pkg. 10 Pcs.	Ship Wt. Carton Lbs. PLB/CHR/OEM Bulk
2	4-1/4	3	-----	0528G09CHR	0528G09CHR	--/2.1/18.0

For Diesel Fills

Pipe Size Inches	O.D. Flange Inches	Mounting Hole Dia. Inches	Plain Bronze Std. Pkg. - 1 Pc.	Chr. Plated Bronze Std. Pkg. - 1 Pc.	Bronze OEM Bulk Pkg. 10 Pcs.	Ship Wt. Carton Lbs. PLB/CHR/OEM Bulk
2	4-1/4	3	0528D09PLB	0528D09CHR	-----	2.0/2.0/--

For Water Fills

Pipe Size Inches	O.D. Flange Inches	Mounting Hole Dia. Inches	Plain Bronze Std. Pkg. - 1 Pc.	Chr. Plated Bronze Dealer. Pkg. 5 Pcs.	Chr. Plated Bronze OEM Bulk Pkg. 10 Pcs.	Ship Wt. Carton Lbs. PLB/CHR/OEM Bulk

For Waste Fills

Pipe Size Inches	O.D. Flange Inches	Mounting Hole Dia. Inches	Chr. Plated Plain Bronze Std. Pkg. - 1 Pc.	Chr. Plated Bronze Dealer. Pkg. 5 Pcs.	Bronze OEM Bulk Pkg. 10 Pcs.	Ship Wt. Carton Lbs. PLB/CHR/OEM Bulk

Screw Sizes: Pipe Sizes 2-1/2 and 3 Inch Deck Plates #10, All Others #8.

SPARE PARTS ORDERING INFORMATION

Pipe Size Inches	Plain Bronze Cap with O-Ring	Chr. Plated Bronze Cap with O-Ring	Chr. Plated Bronze Waste Cap w/O-Ring	O-Rings Only (2/bag, 5 bags/Pkg)	Spare Key
1	0528P0699A	0528C0699A	-----	0513006	1248006DP***
1-1/4	0528P0799A	0528C0799A	-----	0513007	12487-8DP***
1-1/2	0528P0899A	0528C0899A*	0524DP099A	0513DP8	12487-8DP***
2	0528P0999A	0528C0999A	-----	0513009	1248009DP***
2-1/2	0528P1099A	0528C1099A	-----	0513010	1248010ZNC
3	0528P1199A	0528C1199A	-----	0513011	052801199C

* Dealer Pkg. - 5 pcs. (1 pc. per card) *** Dealer Pkg. - 10 pcs. (1 pc. per card)

NOTE: Fig. 0524 Complies with Adopted Standards on "Fittings" A.B.Y.C. Recommended Practices Standards Covering Sewage Holding and/or Treatment Devices for Marine Waste Systems.

**NOTE: These Items Meet the Requirements of U.S.C.G. Safety Standards, January 31, 1977, for Gasoline Fuel Systems, 33 CFR 183. Fills shown on this page DO NOT meet the requirements for 40 CFR 1060 sub part B Emissions Standards and Related Requirements.

Fuel System Locking Inserts, Caps Mounting Ring and Retaining Cable



Counter Display



Fig. 0525

Fig. 0525 - Fuel System Locking Insert for 1-1/2" Vented Fills

CONSTRUCTION:

- Black Polymer with Zinc Alloy Lock Cylinder
- Dual Purpose Key Opens Fill Cap & Locking Insert
- Fits Most PERKO® Vented Fills
- Available in Dealer Package or 12 Piece Countertop Display

Note: Not for use with EPA Compliant gas fills with Vacuum Pressure Relief valves (VPR) Perko Fig. No's 0660, 0661, 0662, 0663, 0780, 0781, 0782, 0783, 0790 & 0791

Ordering Info & Tech Info

Dealer Pkg. - 5 Cards 1 Pc. Per Card 0525DP0BLK	P.O.P. Display 12 Pcs. 0525DP0DIS	Ship Wt. Carton Lbs. DP/P.O.P. Display 1.2/3.3
--	--	---

9



Fig. 1324



Fig. 0520 Fill
Shown with
Locking Cap

Fig. 1324 - Fuel System Locking Cap For 1-1/2" Non-Vented Fills

CONSTRUCTION:

- Black Polymer with Gasket
- Built in Lock Cylinder with Cover for Key Hole
- Size #0 Fits PERKO Fills 1313 & 1399
- Size #1 Fits PERKO Fills 0520, 0527, 0528, 0557, 0599 and 1270

Ordering Info & Tech Info

Dealer Pkg. 5 Cards 1 Pc. Per Card 1324DP0BLK 1324DP1BLK	Cap Outside Thread Diameter Inches 1-15/32 1-7/8	Ship Wt. Carton Lbs. Dealer Pkg. 1.0 1.1
---	--	--



Fig. 0540 Ring

Installation Note: on the use of Vented Fuel Fills

PERKO® Fig. Nos. 0540, 0541, 0542, 0543, 0580, 0581, 0582, 0583, 0590, 0591, 0640, 0641, 0642, 0643, 0680, 0681, 0682, 0683, 0690 & 0691

The use of these heightening rings is required in any application where water might be splashed around a vented fill. The ring raises the opening between the fuel cap and fill an additional 3/8" above the deck surface, thereby reducing the likelihood that splashed water will enter the fuel system through the breathing vent. The split version of the ring is designed for aftermarket use on existing installations. In most cases, it allows the ring to be added without disconnecting fuel and vent hoses from the fill. For new OEM installations, rings are supplied without the split since they can be installed before hoses are connected to the fill.

NOTE: The ring will not prevent water from entering the system if the cap becomes submerged or substantially flooded. If this situation exists, the fill/vent must be moved to a dry location or replaced with a sealed cap and a separate vent located elsewhere.

CONSTRUCTION:

- Black Polymer

Ordering Information

Dealer Pkg. - 5 Cards 1 Pc. Per Card 0540DPRBLK	OEM Bulk Pkg. 50 Pcs. 0540RNGBLK
--	---



Fig. 0537

Fig. 0537 - Retaining Cable for Deck Plates

CONSTRUCTION:

- Stainless Steel Cable and Fittings
- Stainless Steel Ring and Self Tapping Screw

Ordering Info & Tech Info

Fill Hose Size Inches 1-1/2 2	Ring Dia. Inches 1-3/8 2	Length Cable Inches 7 7	Dealer Pkg. - 5 Cards 1 Pc. per Card 0537DP 0537DP2	Ship Wt. Carton Lbs. Dealer Pkg. 0.4 0.4
--	---------------------------------------	--------------------------------------	---	--



Fig. 1241 - Deck Plate Key

CONSTRUCTION:

- Black Polymer
- 2 Holes for Key Chain

Fits PERKO 0552, 0568, 0569, 0580, 0581, 0582 and 0583 Deck Plates
Also fits PERKO 1-1/4" and 1-1/2" Deck Plates
and Many Other "Slot" Type Opening Deck Plates



Fig. 1241

For use with these style caps



Ordering Info

Dealer Pkg. 10 Cards 1 Pc. per Card	OEM Bulk Pkg. 50 Pcs.	Ship Wt. Carton Lbs. DP/OEM Bulk
1241DP0BLK	1241000BLK	1.0/2.0

Tech Info

Center to Center of Lugs:
1-1/8"
Length Spade: 1"
Length Overall: 4"

Fig. 1247 - Deck Plate Key

CONSTRUCTION:

- Black Polymer

Compact Size with Hole for Key Chain. Fits PERKO 1-1/4" and 1-1/2" Deck Plates
and Many Other "Slot" Type Opening Deck Plates

Fig. 1247



For use with these style caps



Ordering Info

Dealer Pkg. 10 Cards 1 Pc. per Card	OEM Bulk Pkg. 50 Pcs.	Ship Wt. Carton Lbs. DP/OEM Bulk
1247DP0BLK	1247000BLK	0.7/0.7

Tech Info

Center to Center of Lugs:
1-1/8"
Length Spade: 1"
Length Overall: 1-3/4"

Fig. 1248 - Deck Plate Key

CONSTRUCTION:

- Black Polymer or Zinc Alloy

The Keys For 1" Thru 1-1/2" Deck Plates Have a 1 Inch Spade on Handle
That Fit Many Other "Slot" Type Opening Deck Plates



Fig. 1248

For use with these style caps



Ordering Info

For Deck Plate Size Inches	C. to C. of Lugs	Length Overall Inches	Material	Dealer Pkg. 10 Cards 1 Pc. per Card	Std. Pkg. 50 Pcs.	Ship Wt. Carton Lbs. DP/Std. Pkg.
1	5/8	3-3/8	Polymer	1248006DP	-----	1.0/---
1-1/4 & 1-1/2	1-1/8	3-3/8	Polymer	12487-8DP	12487-8BLK	1.0/1.4
2	1-11/16	4-3/8	Zinc	1248009DP	-----	2.0/---
2-1/2	2	4-3/8	Zinc	-----	1248010ZNC*	---/0.2

*Standard Pkg. - 1 Pc.

Fig. 0826 - Adjustable Deck Plate Key

CONSTRUCTION:

- Chrome Plated Zinc Alloy
- Hardened Steel Pins
- Will Fit Sizes up to 8 Inch Diameter



Fig. 0826

Ordering Info & Tech Info

Length Overall Inches	Dealer Pkg. - 5 Cards 1 Pc. per Card	Ship Wt. Carton Lbs. Dealer Pkg.
8-1/2	0826DP0CHR	3.4

REPLACEMENT CAPS FOR DIESEL, WATER, WASTE AND NON-EPA GAS FILLS

Style	Description	Used on	Catalog Number
	Fig. 0540 Style Chrome Plated Bronze Vented Cap complete with O-Ring and retainer	Figs. 0540, 0541, 0556 & 0557	Gas: 0540DPG99A* Diesel: 0540DPD99A Water: 0540DPW99A Waste: 0556DP099A**
	Fig. 0542 Style Black or White Polymer Vented Cap complete with O-Ring & Retainer	Figs. 0542, 0543	Gas: Blk: 0542DPG99B* Wht: 0542DPG99W* Water: Blk: 0542DPW99B Wht: 0542DPW99W
	Fig. 0582 Style Scalloped Chrome Plated Bronze Vented Cap complete with O-Ring	Figs. 0582 & 0583	0582DPC99A* (Includes 3 inserts Gas*, Diesel & Water)
	Fig. 0552 Style Scalloped Chrome Plated Bronze Non-Vented Cap complete with O-Ring	Figs. 0552 & 0569	0552DPC99A* (Includes 4 inserts Gas*, Diesel, Water & Waste)
	Fig. 0590 Style Chrome Plated Bronze Vented Cap complete with O-Ring & Retainer. **Note: Fig 0563 Cap is Non-Vented.	Figs. 0563, 0564, 0590 & 0591	Gas: 0590DPG99A* Diesel: 0590DPD99A Water: 0590DPW99A Waste: 0563DP099A**
	Fig. 0520, 0524 & 0507 Style Chrome Plated Bronze Non-Vented Cap complete with O-Ring & Retainer.	Figs. 0507 Waste, 0520 Gas, Diesel, Water & Unmarked 0524 Waste 0528 Various	Fig. 0507: 0507DP099A** Fig. 0520: 0520DP099A Fig. 0524: 0524DP099A** Fig. 0528: See Page E-33
	Fig. 1270 Style Chrome Plated Zinc Alloy Non-Vented Cap complete with O-Ring & Retainer.	Fig. 1270	Gas: 1270DPG99A Diesel: 1270DPD99A Water: 1270DPW99A
	Fig. 0576 Style Chrome Plated Bronze Vented Cap for 2" Fills complete with O-Ring	Figs. 0576, 0577 & 0579	Gas: 0576DPG99A* Diesel: 0576DPD99A
	Metallic Insert Kit Replacement Metallic decal kit. Contains one each Gas, Diesel, Water & Waste Decals	Figs. 0580, 0581, 0551 & 0568	0030DP0006
	Resin Insert Kit Replacement Resin decal kit. Contains one each Gas, Diesel, Water & Waste decals	Figs. 0552, 0569, 0582 & 0583	0030DP0004

***Warning: These caps are not for use with EPA Compliant sealed fuel systems.**

****Note: Replacement waste caps do not include a retainer**



REPLACEMENT CAPS FOR EPA COMPLIANT PRESSURE RELIEF GAS FILLS

Pressure Relief Gas Caps



Sealed Cap with VPR Valve



Dealer Packaged EPA Compliant Sealed Caps **with** Vacuum Pressure Relief valve (VPR)

All caps listed are interchangeable with PERKO® brand EPA Compliant Fills **ONLY**:

Figs. 0640, 0641, 0642, 0643, 0660, 0661, 0662, 0663, 0680, 0681, 0682, 0683, 0690, 0691, 0780, 0781, 0782, 0783, 0790 & 0791

EPA Compliant Sealed Fuel Fill Caps with Vacuum Pressure Relief

A



Fig. 0660 Style

For 1-1/2" Fills for Hose

- Chrome Plated Bronze Sealed Gas Cap with O-Ring and Retainer.
- Cat. No: 0660DPG99A

E



Fig. 0780 Style with Metallic Insert Set

For 1-1/2" Fills for Hose

- Stainless Steel Scalloped Sealed Cap with O-Ring and Retainer.
- Cat. No: 0780DPG98S

B



Fig. 0662 Style Black
For 1-1/2" Fills for Hose

- Black Polymer Sealed Gas Cap with O-Ring and Retainer.
- Cat. No: 0662DPG99B

F



Fig. 0780 Style with "No E-15" Insert

For 1-1/2" Fills for Hose

- Stainless Steel Scalloped Sealed Cap with Red Metallic Decal with O-Ring and Retainer.
- Cat. No: 0780DPG98N

C



Fig. 0662 Style White
For 1-1/2" Fills for Hose

- White Polymer Sealed Gas Cap with O-Ring and Retainer.
- Cat. No: 0662DPG99W

G



Fig. 0780 Style with Gray Gas Insert

For 1-1/2" Fills for Hose

- Stainless Steel Scalloped Sealed Cap with Gray Metallic Decal, O-Ring and Retainer.
- Cat. No: 0780DPG98G

D



Fig. 0790 Style

For 1-1/2" Fills for Hose

- Chrome Plated Bronze Sealed Gas Cap with O-Ring and Retainer.
- Cat. No: 0790DPG99A

H



Fig. 0782 Style with Resin Insert Set

For 1-1/2" Fills for Hose

- Stainless Steel Scalloped Sealed Cap with Red Resin Decals for Gas, Diesel, Water & Waste with O-Ring and Retainer.
- Cat. No: 0782DPG98S

EPA Compliant Sealed Fuel Fill Cap Ordering Information

Cap Style	Cap Type	Insert Type	Dealer Pkg. 5 Pcs. 1 Pc. per Card	Carton Ship Wt. Lbs. Dealer Pkg.
A	Chrome	None	0660DPG99A	2.6
B	Black Polymer	None	0662DPG99B	1.3
C	White Polymer	None	0662DPG99W	1.3
D	Chrome	None	0790DPG99A	2.6
E	Stainless	Red Metallic	0780DPG98S	2.2
F	Stainless	Red Metallic "No E-15"	0780DPG98N	2.2
G	Stainless	Gray Metallic	0780DPG98G	2.2
H	Stainless	Red Resin	0782DPG98S	2.2

These caps meet the CARB and EPA requirements of U.S.C.G. Safety Standards (July 31, 2011) for 40 CFR Parts 9, 60, 80 et al. Control of Diurnal Emissions From Nonroad Spark-Ignition Engines and Equipment.



Fig 0639 - Diesel Shut Off System

Helps reduce wellback and spitback in diesel fuel systems

NEW PRODUCT

SYSTEM COMPONENTS INCLUDE:

- 1-1/2" or 2" Inlet Check Valve (ICV)
- Vent Line Surge Protector
- Stanchion Tube (Flanged or Threaded)
- Vented 2" Diesel Fill (Sold separately)

Fig. 0553
Surge Protector
See Pg. E-9



Figs. 0577 and 0579
2" Vented Fills
See Pg. E-28
(Sold Separately)

Fig. 0635
2" ICV
See Pg. E-6

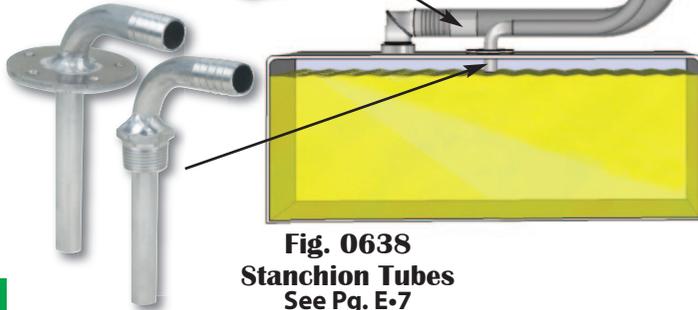


Fig. 0638
Stanchion Tubes
See Pg. E-7

Kit Ordering Info

ICV Size	Stanchion Tube	OEM Bulk Pkg. 5 kits. per box	OEM Bulk Pkg. Ship Wt. Carton Lbs.
1-1/2"	Flanged	0639F01KIT	2.5
1-1/2"	Threaded	0639T01KIT	2.5
2"	Flanged	0639F02KIT	3.0
2"	Threaded	0639T02KIT	3.0

Kit includes: 1 each ICV, Stanchion Tube, and Surge Protector. Fuel Fill is sold separately. Cork gasket included with flanged stanchion tube.

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0520	E	31	0580	E	22,29	0661	E	21	1324	E	32,34
0524	E	33	0581	E	22,29	0662	E	27	1399	E	32
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Blue = Added



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RED = Discontinued, Blue = Added	



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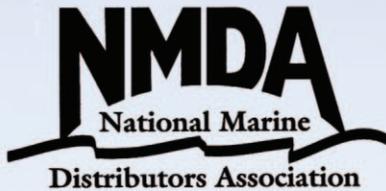
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