

# Lifeguard

## Fuel/Air Separators



The next time you fill up, watch your fuel vent line. A typical refueling will send up to half a gallon or more of fuel spilling overboard. Fuel spillage is not only expensive, it's absolutely deadly to fragile lakes, rivers, and waterways. Also, USCG and other regulations prohibit the discharge of oils with civil and criminal penalties. Installed in the fuel tank vent line, the Racor Fuel/Air Separator efficiently separates air from fuel forced into the line. Air is vented, and all fuel is returned to the tank. The Fuel/Air Separator captures fuel normally discharged due to agitation and thermal expansion up to 2.4 PSI (0.17 bar). It also eliminates damage to expensive striping, labels, and protects finishes from fuel stains. The unit is maintenance free—there's nothing to rust or corrode.



**LG100 (for diesel/gasoline)**

ECO Friendly



## Contact Information

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The Racor Fuel/Air Separator fits neatly into your vent line, actually replacing a section of the line and fittings are included with each kit. One Fuel/Air Separator unit is required for each vent line. Fuel/Air Separators fit 5/8" vent lines, 1/2" fittings are available.



**LG50 (for gasoline)**



ENGINEERING YOUR SUCCESS.

# How They Work

## LG50 (for gasoline)



### Stage 1:

Venting tank fuel is diffused by the flow diverter and air is allowed to bypass the diverter. Fuel is directed back into the fuel tank.

### Stage 2:

Vapor collects on the interior surfaces and coalesces. The fuel returns downward by gravity and air continues up and out of the unit.



## LG100 (for diesel/gasoline)

### Stage 1:

Venting tank fuel is diffused by the flow diverter and air is allowed to bypass the diverter. Fuel is directed back into the fuel tank.

### Stage 2:

Fuel de-foams through a fine wire mesh screen which filters out large contaminants. Under the screen, the fuel collects temporarily until it can freely flow back to the fuel tank.

### Stage 3:

Vapor collects on the interior surfaces and coalesces. The fuel returns downward by gravity and air continues up and out of the unit.

**Note:** The safety relief valve includes a floating check ball which will not permit a large in-rush of fuel to bypass. In the event of internal pressure reaching 2.4 PSI (0.17 bar), the spring will compress and open the safety seat.

The Lifeguard fuel / air separator is designed to be installed in-line in your existing fuel tank vent hose to prevent fuel spillage into the waterways. This saves you money in fuel costs while protecting our environment.



Specifications	LG50	LG100
Application:		
Gasoline	Yes	Yes
Diesel	No	Yes
Maximum Air Flow	12 CFM (340 l/m)	17 CFM (481 l/m)
Hose Barb <sup>1</sup>	5/8"	5/8"
Thermal Expansion	Up to 2.4 PSI (0.17 bar)	Up to 2.4 PSI (0.17 bar)
Height	6.0 in. (15.2 cm)	9.8 in. (24.9 cm)
Diameter	1.8 in. (4.6 cm)	4.0 in. (10.2 cm)
Weight (dry)	1.2 lbs (0.5 kg)	1.6 lbs (0.7 kg)

Notes: <sup>1</sup> Order part RK 50033 for 1/2" NPTF threaded fitting

## Mounting considerations

Do not mount or attach the Lifeguard unit to the engine or near any source of extreme heat.

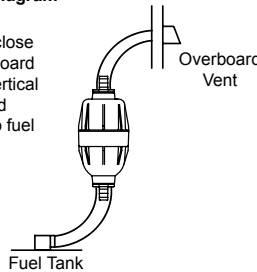
Ensure the unit will be installed UP, within 60° of vertical as shown in the diagram below.

A 90° elbow is supplied for convenience and ease of installation. All fittings are interchangeable.

### Installation Diagram

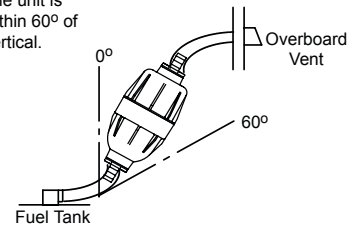
#### Ideal

The unit is close to the overboard vent, in a vertical position, and there are no fuel traps in the hoses.



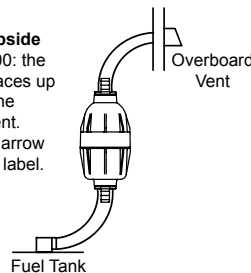
#### Acceptable

The unit is within 60° of vertical.



#### Wrong

The unit is **upside down**. LG100: the flat surface faces up and toward the overboard vent. LG50: follow arrow directions on label.



#### Wrong

Do not allow a fuel trap in either the top or bottom vent hoses. Remove excess hose from the installation. Use the 90° fitting if necessary.

