

## Fuel Pre-Filter Funnel Systems

# Racor Product Bulletin

## Fuel Filter Funnel

### Applications

For all hydrocarbon based fuels. Used as a means to **pre-filter** fuel while fueling.

### Products

The **Racor Fuel Filter Funnel (RFF)** family is a new heavy-duty, fast-flow, filter-in-a-funnel that separates damaging free water and contaminants from gasoline, diesel, heating oil, and kerosene.

The new **RFF** family of products are capable of removing free water and solids down to .005 inch and allows you to visually inspect the integrity of your fuel supply as you refuel.

Dirt and water are practically unavoidable in stored fuel, causing microbial growth, corrosive acids, electrolysis, and rust. These contaminants can plug filters, corrode components, decrease efficient combustion, and can cause engine shut-down or system failure.

You can combat these problems by refueling with the RFF. Every time you transfer fuel from one container to another you should pass it through an RFF system.

The RFF family is manufactured using industrial grade black **electro-conductive** polypropylene. Carbon powder is injected into the plastic so that the RFF will conduct static electricity. The grounding capability of the RFF is an important safety feature. Always use proper fuel handling procedures and follow local and federal regulations.

### Features and Benefits

- Rugged construction
- Teflon coated stainless steel filter
- Three sizes, three flow rates
- Electro-conductive plastic material
- Corrosion resistant

The **RFF** is useful for people who use an internal combustion engine such as a lawn mower, chain saw, weed whacker, snow blower, snow machine, ATV, generator, boat motor, ag equipment, race car, motorcycle, or airplane.

- **RFF1C (small)**  
6" H x 3.5" dia.  
2.7 gallons per minute
- **RFF3C (medium)**  
9" H x 5.5" dia.  
3.9 gallons per minute
- **RFF8C (large)**  
10" H x 8.5" dia.  
5 gallons per minute

**CAUTION FOR AVIATION USERS:**  
*Petroleum products flowing over a plastic surface generate static electricity.* Caution should be taken to ensure that the RFF is grounded to reduce static electricity buildup and reduce the chance of explosions or fire. Electrically bond the funnel by using a wire with a metal clip on each end and clamp one to the upper rim of the funnel and the other to the fueling source. For example the metal gas can or nozzle from the pump.



RFF1C



RFF3C



RFF8C

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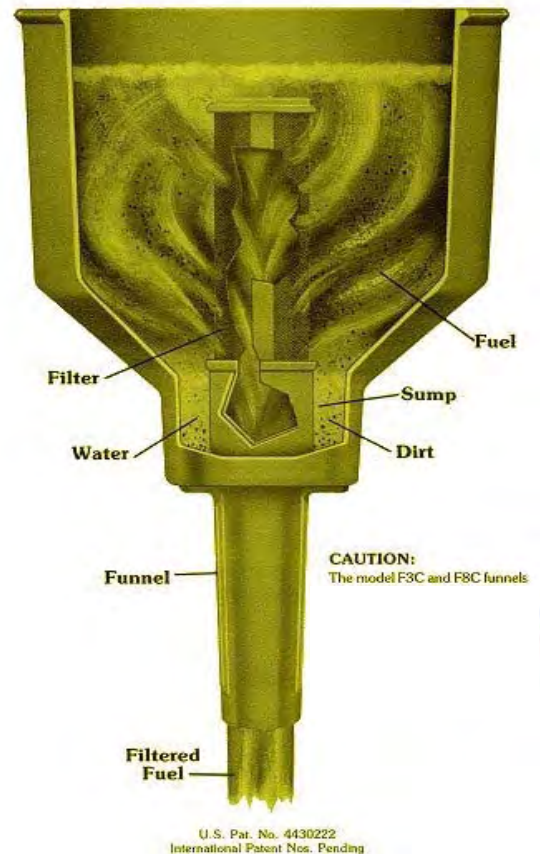
**RACOR**  
**Parker**  
Filtration

## How They Work

The Racor RFF family comes with a stainless steel filters built right in. As you pour your fuel through the funnel observe the sump area of the funnel. If the fuel contains free water it will collect in the sump, since water is heavier than fuel. When you have a substantial amount of water (approximately 1 cup), dispose of it properly and resume fueling. If the RFF filter becomes clogged with solid contaminants, rinse it with clean fuel and then return to fueling.

When properly used, the filter will separate **FREE WATER** from hydrocarbon fuels. Free water is the collection of water molecules in the bottom of gas cans, tanks, or drums formed when fuel is stored for even short periods of time. The free water formation is due to condensation in the air and/or the separation of water molecules from fuel. Water may be present in hydrocarbon fuels as free water or as an emulsion, small droplets of water suspended in the fuel. Water may be emulsified in fuel by vibration or by emulsifying additives such as alcohol, or detergents. The RFF filter will not remove emulsified water. Install **Racor fuel filter/water separators** to remove emulsified water from your engine's fuel system.

- Excessive head pressure can force water through the funnel. If most of the filter is covered with water, the head pressure of a full funnel can force water through the filter. As water is observed collecting in the bottom of the funnel or the flow rate begins to slow, stop fueling and properly dispose of the water and contaminants from the RFF and then continue fueling.
- 2-cycle oil contains dispersants, (detergents) which may allow some water to pass the screen. The only safe way to filter out water is add the two cycle **oil** to the tank **before** filtering the fuel through the funnel. Additives containing **alcohol** can emulsify and bind water (see above). The filter cannot remove this bound water, add them **after** fueling.
- DO NOT ATTEMPT TO REMOVE the filter from the funnel. The filter is permanently attached to the funnel.
- The RFF is designed to work with fuels only. **CAUTION:** Do not use the RFF for anything but filtering fuels. Other liquids may compromise the effectiveness of the filter.
- **CAUTION AVIATION USERS:** For aviation use, the purpose of this product is to facilitate the inspection of fuel for contamination in the form of solids (down to .005 inch) and free water. If contamination is found in aviation fuels when checking your tanks or during refueling, drain tanks or take appropriate corrective action. Don't forget to always check the sump for water that may already exist in the tanks.
- To test the RFF, pour one cup of water into the RFF1C and RFF3C or two cups of water into the RFF8C. This amount of water should not pass through the filter. Keep this amount in mind when using the RFF knowing that the head pressure caused by the weight of more than this amount of water in the funnel may cause water to pass through the Teflon® coated stainless steel screen.
- Always dispose of water, contaminants, or dirty fuel in a proper manner.
- Periodically inspect the funnel for physical damage. The filter is stainless steel coated with Teflon.



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Filtration

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**Map and Directions to Prosep Filters Limited**



Leave M62 at Junction 24.

At roundabout adjacent to Cedar Court Hotel take 2nd exit onto dual carriageway (A629), signposted Halifax.

Take 1st exit slip road.

At roundabout at end of sliproad, take 3rd exit off.

This is the entrance to Lowfields Business Park.

Proceed straight over 1st roundabout.

At next roundabout take 2nd exit onto River Bank Way - Prosep Filters can be found on the left after the S-bend.

[Link to Google Maps](#)