

# Fuel Filter Water Separator with Integrated Priming Pump – Racor 700 Series | #790R3024

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## Integrated Fuel Filter/Separator Pump Systems for Today's Diesel Engines

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### Technical Specifications

**Flow Rate:**

90 gph / 340 lph

**Pump Type:**

12/24V DC Brushless

**Micron Rating:**

98% @ 30 microns

**Product Series:**

Cartridge FF/WS Pump, P-Series

**Brand:**

Racor

**For Fluid Type:**

Diesel

**Mounting Type:**

Head Bracket

**Bowl Type:**

Clear Engineering Plastic

**Pump Type:**

63 gph (240 lph)

**Clean Pressure Drop:**

0.25 psi, 1.7 kPa

**Port Size:**

7/8"-14 UNF

**Compatible Element:**

R90P

**Height:**

12.8 in / 32.5 cm

**Depth:**

6.5 in / 16.5 cm

**Width:**

4.3 in / 10.9 cm

**Water Sensor Option:**

Included

**Optional Accessories:**

See Product Overview & Support Tabs

**Application:**

Electric Priming

The Racor 700 Series Fuel Filter Water Separator is a two-stage filtration and re-priming system that's designed for use in heavy-duty diesel applications. The assembly comes equipped with a state-of-the-art integrated fuel pump, which allows for easy priming and simplified service by eliminating messy filter pre-filling and engine hard starting. To meet the unique requirements of customer's engines, the 700 Series is available in a wide range of configurations. The system can be fitted with either a 12-volt DC brushed motor "roller-cell" pump or a 12/24-volt DC brushless motor generator-motor (gerotor) pump. Both fuel pumps offer electric on-demand priming at the push of a button and have output pressures regulated to 15 psi (103 kPa).

All 700 Series configurations utilize Racor's proprietary Aquabloc® filtration elements. Aquabloc® is a unique engineered media that incorporates pleat-spacing corrugations and a graduated pore structure to increase dirt-holding capacity and extend filter life. The media is waterproof and rustproof, capturing contaminants while the specially treated surface separates and coalesces water from the fuel; causing the water to gather into large droplets that then fall into the clear collection bowl.

Aquabloc® elements are available in two different ratings:

30 micron (98%@30 micron) – Ideally suited as a pre-filter to protect downstream filters from excessive contamination. Extends the life of on engine filters.

10 micron (98%@10 micron) - Captures more contaminants than 30 micron elements, and more effective at stopping water. Extends the life of the entire fuel system.

#### How They Work

When priming, fuel from the tank is drawn through a fine pre-screen and into the pump. From there, fuel primes the spin-on filter element and then exits the filter assembly. In running mode, fuel bypasses the pump portion and enters the Aquabloc® media element directly, where particle and water contaminants present in diesel fuels are trapped before they can damage the fuel injection system. All Racor filter materials and seals are compatible with ultra-low sulfur diesel and biofuels up to B20 blend.

#### Markets:

- Agriculture
- Construction
- Power Generation
- Oil and Gas
- Marine
- Recreational Vehicles (Motorhomes)

#### Applications:

- Diesel and Biodiesel Engines

#### Benefits:

- Integrated priming pump simplifies service and start-up by eliminating messy filter pre-filling and engine hard starting.
- The 12/24V DC brushless gerotor pump has fewer parts than gear or vane pumps, and the sensorless control technology of the DC motor makes this product the most reliable filter and pump assembly on the market.
- Removes water that enters the system through condensation in the fuel tank.
- Removes hard particles present in air that are introduced during fueling, such as sand and silica.
- Removes soft contaminant particles from overheated and degraded diesel fuel, which coat filters with black asphaltene-like substance, leading to power loss and engine shutdown.
- Prevents costly injector damage and increases operational life of downstream filters.
- Saves time and money by eliminating unplanned maintenance and unscheduled downtime from system component failure.
- Can be upgraded to the R125 replacement filter without the need to purchase a new bowl. The R125 is a great fit

- Aquabloc® engineered media elements with 98% efficiency at 10 or 30 micron
- Flow 45 to 120 gph (170 to 454 lph) in upgraded applications
- Aluminum filter head with integral mounting bracket and four ports (2 inlets and 2 outlets) with 7/8" – 14 SAE UNF threads
- Self-venting drain
- 12V DC or 12/24V DC electronic priming pump system
- Replaceable spin-on filter
- Reusable, clear collection bowl
- 100 micron pre-pump filter screen
- Water-in-fuel (WIF) water detection probe
- Vent valve to purge air during fuel priming
- Compatible with ultra-low sulfur diesel and biofuels up to B20 blend

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## CAD Drawings + Files

No CAD files available



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