

Parker Product Datasheet



The Racor Marine Fuel Filter Water Separator Turbine Series is a UL-approved filtration system that offers maximum protection of diesel engine components by effectively removing contaminants from fuel, such as water, silica, sand, dirt, and rust.

PART NUMBER: 791000VMA10
FLOW RATE: 540 gph (2044 lph)
PRODUCT TYPE: Turbine Marine Filter Housing
VALVE TYPE: Integrated Isolation Valve
PART TYPE: 1000 Marine Triple Turbine Assembly
MICRON RATING: 98% @ 10 Micron
BOWL TYPE: Bowl: Clear Engineering Plastic with Stainless Steel Shield
LOCATION: North America and EMEA regions

PRODUCT OVERVIEW

The Racor Marine Fuel Filter Water Separator Turbine Series is the most trusted fuel filter water separator on the market. The UL-approved assembly features a three-stage filtration system that effectively removes water and particulates from fuel, providing maximum protection of diesel engine components in marine applications where reliability is critical.

Racor marine fuel filter water separators are available in a wide range of configurations to meet the unique requirements of customer's engines. All models 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, which causes the water to gather into large

droplets that then fall into the clear collection bowl. Aquabloc® elements are available in three different ratings, including:

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 is more effective at stopping water. Extends the life of the entire fuel system.

“2” micron (98%@4 microns) – Provides maximum water removal and filtration and is capable of protecting all modern injection systems, while greatly extending the life of difficult-to-service on-engine filters.

How They Work

For optimal performance, Turbine Series marine filter assemblies should be installed on the vacuum side of the fuel transfer pump. They remove contaminants from fuel using the following three-stage process:

Stage One - Water Separation: As fuel enters the filter assembly, it moves through the centrifuge and spins off large solids and water droplets, which fall to the bottom of the collection bowl.

Stage Two - Coalescing: Small water droplets bead-up on the surface of the conical baffle and cartridge element. When heavy enough, they fall to the bottom of the bowl.

Stage Three - Filtration: Proprietary Aquabloc® cartridge stops and captures fine hard and soft contaminants, while remaining water coalesces on the media surface. The coalesced water gathers into larger drops that then fall down into the clear collection bowl.

Markets:

- Construction
- Power Generation
- Oil and Gas

Applications:

- Diesel and Biodiesel Engines used in marine/water environments

Benefits:

- Removes water that enters the system through condensation in the fuel tank. Any water present in the fuel stream will support bacterial growth, which can cause clogged filters and result in the

formation of corrosive acids. Susceptible components then rust and corrode, leading to erosion and wear of critical fuel system components.

- 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.
- With Racor 75 and 791000 Turbines, a simple turn of a valve puts a clean filter back on-line. Servicing of the clogged filter can then be performed with the engine running.
- Available in a wide range of configurations to meet the unique requirements of customers' engines, including marine (UL-approved) versions.

Features:

- Aquabloc® engineered media elements with 98% efficiency at 4, 10 or 30 micron
- Various flow rates available: 60 gph (227 lpm) with a single 500FG Series, up to 540 gph (2044) with the 77 and 791000 series triple-manifold units
- Corrosion-resistant construction
- Self-venting drain valve or plug (on metal bowls)
- Clear contaminant collection bowl

TECH SPECIFICATIONS

DIVISION	Engine Mobile Original Equipment Division
CONNECTION TYPE	1 5/16"-12 UN-2B (SAE 1926-1)2X 3/4" NPTF Adapters Supplied2X Port Plugs Supplied
APPLICATION	Marine Filtration
BRAND	Racor
SERIES OR MODEL REPLACED	Replaces all 77/791000MA
CATALOG NUMBER	See RSL0431