Parker Product Datasheet



Racor Spin-on Series Fuel Filter Water Separators provide maximum protection of modern engines by effectively removing water, sand, dirt, and rust contamination from fuel. Integral priming pump and fuel heater available as an option.

PART NUMBER: 4120R10
CORE PRODUCT: in EMEA
PORT SIZE: 3/4'-16 SAE (SAE J1926)
HEATER POWER RATING: No Heater
PART TYPE: Filter Assembly
FLOW RATE: 120 gph (454 lph)
INTEGRAL PRIMER PUMP INCLUDED: Button Priming Pump (Diesel)
MOUNTING: Bracket Included
LOCATION: North America and EMEA regions
BOWL TYPE: Deep Bowl, Clear Engineering Plastic
MICRON RATING: 98% @ 10 Micron
PRODUCT SERIES: Diesel Spin-on 400
BOWL MATERIAL: Clear Engineering Plastic

PRODUCT OVERVIEW

No matter how carefully gasoline or diesel is handled, contamination in the form of dirt, sludge or water will always find its way into your fuel tank. With modern engines now injecting fuel at over 36,000 psi (2,500 bar) and injector tolerances measured in microns, even a small amount of dirt or water corrosion can cause damaged components, reduced engine efficiency, and in severe cases, complete injector break-down.

Racor Spin-on Series Fuel Filter Water Separators provide maximum protection of modern diesel and gasoline engines by effectively removing contaminants from fuel, such as water, silica, sand, dirt, and rust. The mounting head and filter body are protected with a durable electrostatically-applied powder coating for superior corrosion resistance. The unique spin-on filter design is easy to service and features a reusable clear plastic or metal contaminant collection bowl with a self-venting drain or metal plug.

An integral priming pump is available as an option for diesel filter models; but they are not recommended for gasoline models. The pump allows for easy priming and simplified service by eliminating messy filter pre-filling and engine hard starting. Diesel models are also available with optional fuel heaters to ensure performance in extremely cold environments.

All Spin-on Series Fuel Filter Water Separators utilize Racor's high-efficiency Aquabloc® engineered media, which repels water and removes solid contaminants from fuel at 98% efficiency of their micron rating. To meet the unique requirements of customers' engines, three different micron ratings are available for purchase, 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 it works:

Racor Spin-on Series Fuel Filter Water Separators use Aquabloc® media to reliably remove dirt and water from diesel and gasoline. Aquabloc® media is pleated, corrugated, and designed for high water rejection and long service life. Fuel entering the filter head is diverted downward past the vertical media pleats, allowing larger water droplets and contamination particles to fall directly to the collection bowl. Smaller water droplets converge and coalesce on the specially treated media surface until they are large enough to also drop to the collection bowl. Small contamination particles are stopped at the surface of the Aquabloc® media, while even smaller particles are held deeper in its layers. This results in dry, clean motor fuel being delivered to your engine.

Notes on use:

• Hand priming pumps are not recommended for gasoline applications.
• Gasoline filters used in an enclosed location should use a metal bowl.
• Clear bowls in gasoline systems are a routine inspection item: Inspect for damage, deformation, and discoloration often, and replace as necessary.
• Heaters and water probes must NOT be used in gasoline

Notes on selection:

To ensure selection of the proper Spin-on Series filter, follow the steps below:

1.Choose mounting type (one small filter model is available as an in-line unit).

2.Choose “cold weather” heater type or none. Electric heaters are for heating static fuel as a starting aid and may not supply enough fuel flow for full-load operation. Filters with coolant heaters can heat and supply fuel at full flow for full-load engine operation. Heaters are NOT to be used in gasoline applications.

3.Select total flow rate through the fuel system (gpm or lpm).

4.Choose bowl material; engineering plastic or aluminum alloy. Aluminum is for high heat locations and enclosed gasoline applications.

5.Choose hand primer feature or none. The plunger-type priming pump is manually operated vertically like a piston and has no diaphragm. The button-type priming pump is operated with your palm and uses a diaphragm.

6.If available, choose bowl type: standard or deep. The 6120/4120 and 6125/4125 filters are identical in performance but the 6120/4120 units have high capacity deep bowls. The 6125/4125 filters use the 400/600 series bowl.

7.Choose the micron rating.

8.Choose port size: standard US or metric if available.

Markets:

• Agriculture
• Construction
• Power Generation
• Oil and Gas

• On- or Off-highway

Applications:

• Diesel Engines
• Gasoline Engines

Benefits:

• Offers exceptional removal of 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.
• 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.
• High-efficiency Aquabloc® media helps OEMs' diesel engines adhere to rigid government emission standards.

Features:

• Reusable, clear plastic or metal collection bowl with self-venting drain
• Available aluminum alloy contaminant collection bowl
• Replacement cartridge elements exhibit high dirt-holding capacity and long service life
• Corrosion-resistant coatings and construction
• Hand priming pump available on selected models
• Gasket and o-ring materials designed for use in diesel or gasoline engines
• Product is built in an ISO TS 16949 quality system environment to ISO 14001 Environmental requirements.

TECH SPECIFICATIONS

ACCESSORIES INCLUDED	See Product Support Tab
FILTER ELEMENT TYPE	10 Micron Aquabloc Spin-on
CLEAN PRESSURE DROP	5.86 kPa

OPERATING TEMPERATURE	-40 to 250 °F
CLEAN PRESSURE DROP	0.85 psi
DIVISION	Engine Mobile Original Equipment Division
MAXIMUM OPERATING PRESSURE	15 psi
MAXIMUM OPERATING PRESSURE	103.0 kPa
BRAND	Racor
HEAD MATERIAL	Aluminium Alloy
COMPATIBLE ELEMENT	R120S = '2' Micron R120T = 10 Micron R120P = 30 Micron
DEPTH	121.0 mm
DEPTH	4.8 inch
MAXIMUM FLUID TEMPERATURE	88.0 °C
OPERATING TEMPERATURE	-40 to 121 °C
HEIGHT	381.0 mm
MAXIMUM FLUID TEMPERATURE	190.0 °F
WIDTH	114.0 mm
HEIGHT	15 inch
NUMBER OF PORTS	2 Inlet / 2 Outlet
PRODUCT TYPE	Diesel Spin-on FF/WS
WIDTH	4.5 inch
FOR FLUID TYPE	Diesel
WEIGHT	3.9 lb / 1.8 Kg