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Racor Filter Division Europe

Dual Spin on Series Fuel Filtration





Fuel Filtration Technology



It is quite common to find diesel engines equipped with at least a basic fuel filtration device. Yet, in the face of a general worldwide decline in the quality of diesel fuel itself, basic forms of filtration may not adequately protect precision components.

No matter how carefully fuel is handled, contaminants will find their way into fuel during transfer, storage, or even inside vehicle tanks. Indeed, water, an engine's number one enemy, condenses directly from the air during normal daily heating and cooling cycles. In addition to water, solid and semi-solid (microbiological) particulate contamination is prevalent.

In addition to contaminant challenges there is also the potential for paraffin wax crystal formation in the fuel during cold weather operations. These crystals form (at the cloud point of fuel) and cause filters to plug just as if they were fouled by contamination.

Each of these threats to smooth engine operation can be met by a well designed, high quality, and effective diesel fuel filter/water separator. The proper system can go a long way in assisting operators with required operation and maintenance.

Water, An Engine's Worst Enemy

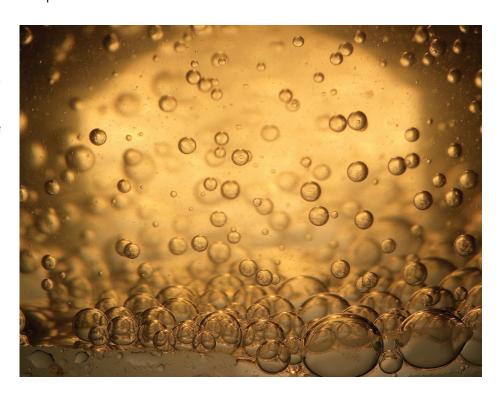
Water is commonly found in diesel fuel, due mainly to condensation, handling, and environmental conditions. Water contamination, although ever present, is more pronounced in humid areas and marine applications.

The presence of water in diesel fuel systems may cause the following problems:

- Water causes iron components to rust, forming loose aggregated particles of iron oxide contributing to injector wear.
- At the interface of water and diesel fuel, microbiological growth rapidly occurs under ideal conditions. These microbes form a sludge that can actually hinder filter effectiveness and injection performance

- Water contramination combines with various forms of sulfur contamination, forming sulfuric acid. This strong acid can damage injection systems and engine components.
- Water inhaled by the injection system can displace lubrication provided by the fuel oil itself, causing galling and premature wear.

Typical primary filtration devices do not have the capability to remove water, leaving the engine prey to pump and injector damage and reduced efficiency. It is therefore essential to effectively separate water from the fuel prior to the final stages of solid particulate filtration.





75/B32016

Dual Filter/Water Separator



Specifications

Maximum Flow Rate:
(one filter on-line)
20 GPH (75 LPH)
(two filters online)
40 GPH (151 LPH)

Inlet/Outlet Port Size 3/4"-16

Housing Material Aluminum

Replacement Element See Element Chart

Center Threads¹ 16mm X 1.5

Minimum Service Clearance (below filter) 2.0 in. (5.1 cm)

Height 10.3 in. (26.2 cm)

Depth 4.9 in. (12.4 cm)

Width 7.6 in. (19.3 cm)

Weight (dry)

Maximum Working Pressure² 30 PSI (2.1 bar)

Water Removal Efficiency 99%

Solids Capacity

(with one filter) 6.4 oz. (182 g) (with two filters) 12.8 oz. (363 g)

Case Quantity 6

Ambient Temperature Range -40° to +250°F (-40° to +121°C)

Maximum Fuel Temperature 190°F (32°C)

Notes: ¹ Units are standard M18 X 1.5 (ISO9974-1) O-ring face seal fuel ports. The 75/B32016 includes two adapter fittings to 3/4"-16 UNF JIC

The Racor Dual Spin-On Series provides twice the filtering capacity in one compact and robust package. A shut-off valve located in the mounting head can switch to the clean filter so that the dirty filter may be serviced (servicing filters is not possible while engine is running).

These assemblies feature Aquabloc II replaceable filter elements that stop water, remove solid contamination, and are available in 2, 10 and 30 micron. Filtration needs should be based on application, fuel quality, operating climates, and maintenance schedules.

Note: All Racor filter materials and seals are compatible with ultra-low sulphur diesel (ULSD) fuel and B2 to B20 Biodiesel.

² Vacuum side installations only.

75/B32009

Dual Filter/Water Separator



The Racor Dual Spin-On Series provides twice the filtering capacity in one compact and robust package. A shut-off valve located in the mounting head can switch to the clean filter so that the dirty filter may be serviced (servicing filters is not possible while engine is running).

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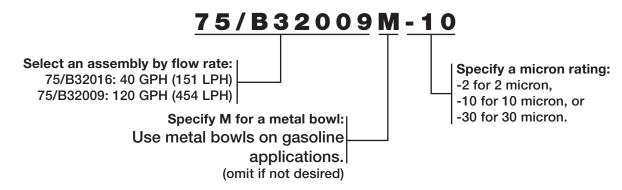
Note: All Racor filter materials and seals are compatible with ultra-low sulphur diesel (ULSD) fuel and B2 to B20 Biodiesel.



Specifications	
Maximum Flow Rate: (one filter on-line) (two filters online)	60 GPH (227 LPH) 120 GPH (454 LPH)
Inlet/Outlet Port Size	7/8"-14
Housing Material	Aluminum
Replacement Element	See Element Chart
Center Threads (UNF JIC) ¹	16mm X 1.5
Minimum Service Clearance (below filter)	2.0 in. (5.1 cm)
Height	12.4 in. (31.5 cm)
Depth	5.3 in. (13.5 cm)
Width	8.4 in. (21.3 cm)
Weight (dry)	-
Maximum Working Pressure ²	30 PSI (2.1 bar)
Water Removal Efficiency	99%
Solids Capacity (with one filter) (with two filters)	13.7 oz. (388 g) 27.4 oz. (777 g)
Case Quantity	6
Ambient Temperature Range	-40° to +250°F (-40° to +121°C)
Maximum Fuel Temperature	190°F (32°C)

Notes: ¹Units are standard with M18 X 1.5 (ISO9974-1) O-ring face seal fuel ports. 75/B32009 includes two adapter fittings to 7/8"-14 UNF JIC. ²Vacuum side installations only.

How to Order

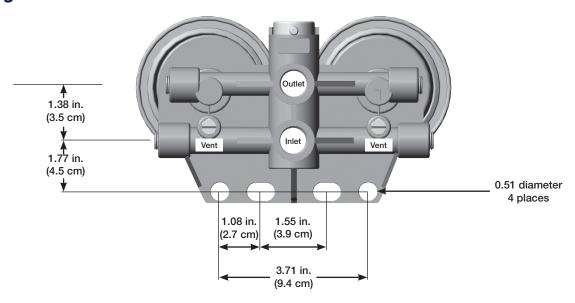


Replacement Elements

Model	2 micron (Final)	10 micron (Secondary)	30 micron* (Primary)
75/B32016	\$3216S	S3216T	S3216P
75/B32009	\$3209S	23209T	33209P

^{*} A secondary/final filter is required downstream.

Mounting Information



Dual Spin-On Series Overview







Specifications	75/B32009	75/B32016	
Maximum Flow Rate: (one filter on-line) (two filters online)	60 GPH (227 LPH) 120 GPH (454 LPH)	20 GPH (75 LPH) 40 GPH (151 LPH)	
Port Size (UNF JIC) ¹	7/8"-14	3/4"-16	
Height	12.4 in. (31.5 cm)	10.3 in. (26.2 cm)	
Width	8.4 in. (21.3 cm)	7.6 in. (19.3 cm)	
Depth	5.3 in. (13.5 cm)	4.9 in. (12.4 cm)	
Center Threads	16mm X 1.5	16mm X 1.5	
Solids Capacity: (with one filter) (with two filters)	13.7 oz. (388 g) 27.4 oz. (777 g)	6.4 oz. (182 g) 12.8 oz. (363 g)	
Available Options: (water sensor) (heater)	Yes Yes	Yes Yes	
Operating Temperature	-40° to +255°F (-40° to +124°C)		

¹ Units are standard with M18 X 1.5 (ISO9974-1) O-ring face seal fuel ports. The 75/B32016 includes two adapter fittings to ³/₄"-16 UNF JIC and the 75/B32009 includes two adapter fittings to 7/8"-14 UNF JIC.

The Selection Valve







Do not service filters with engine on.



Replacement Parts

75/B32009 and 75/B32016

Part Number Description

1. 30628 Dual Filter Head

2. RK 10503 Element Gasket Kit

3. See Replacement Element Chart

4. RK 30076 75/B32009 Bowl O-ring Kit RK 10012 75/B32016 Bowl O-ring Kit

5. Replacement Bowl Kits (includes bowl, #'s 4 to 7)

RK 30051 75/B32009 Clear Bowl Kit **RK 30473** 75/B32009 Metal Bowl Kit

(no probe port)

RK 10215 75/B32016 Clear Bowl Kit **RK 10109** 75/B32016 Metal Bowl Kit

(no probe port)

6. RK 30476 Drain Valve Kit

7. **RK 20126** 1/2" SAE Plug with O-ring

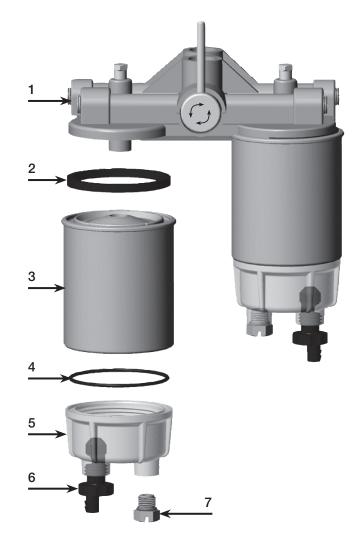
Additional Parts (not shown)

30837 75/B32009 Adapter Fitting

(7/8"-14 UNF JIC)

30945 75/B32016 Adapter Fitting

(3/4"-16 UNF JIC)



Features and benefits

Features

- Simple switch over
- In-built redundancy
- Single or full duplex operation
- Compact design
- Low cost of ownership

Benefits

- Ideal for remote genset applications
- Essential for emergency gensets
- Marine specifications often demand redundancy
- Minimise downtime caused by dirty fuel especially on agricultural and construction applications
- Keep engines and vehicles running

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