PFF4245R2

Fuel Filter/Water Separator



Instruction Part Number 14383 Rev -

Overview:

The PFF4245R2 fuel filter/water separator is specifically designed to handle today's tough diesel filtration problems and may be used on the vacuum or pressure side of the fuel transfer pump.



Contact Information:

Parker Hannifin Corporation
Racor Division
P.O. Box 3208
3400 Finch Road
Modesto, CA 95353

phone 800 344 3286
209 521 7860
fax 209 529 3278
racor@parker.com

www.parker.com/racor
www.parker.com/racorproducts

Product Features:

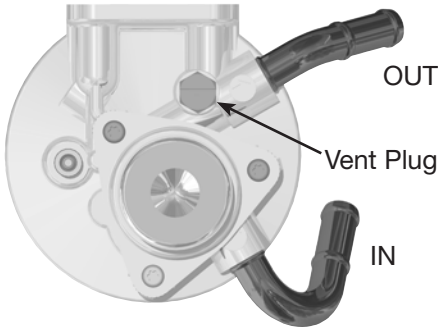
- **Unitized 2-port head equipped with threaded mounting bracket for installation convenience**
- **Reusable contaminant drain plug with mechanical (N/O) water-in-fuel (WIF) sensor assembly**
- **Aquabloc®II, 2 micron media**
- **Hand (palm) operated fuel-priming pump**
- **12 vdc, 100 watt in-head fuel heater**
- **Maximum Flow rate of 45 GPH (170 LPH)**

Parker Racor

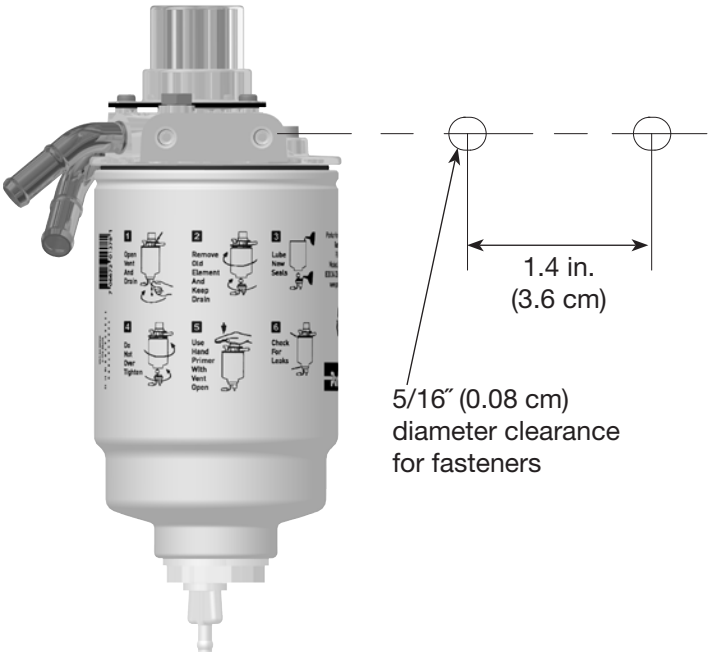
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Mounting Instructions

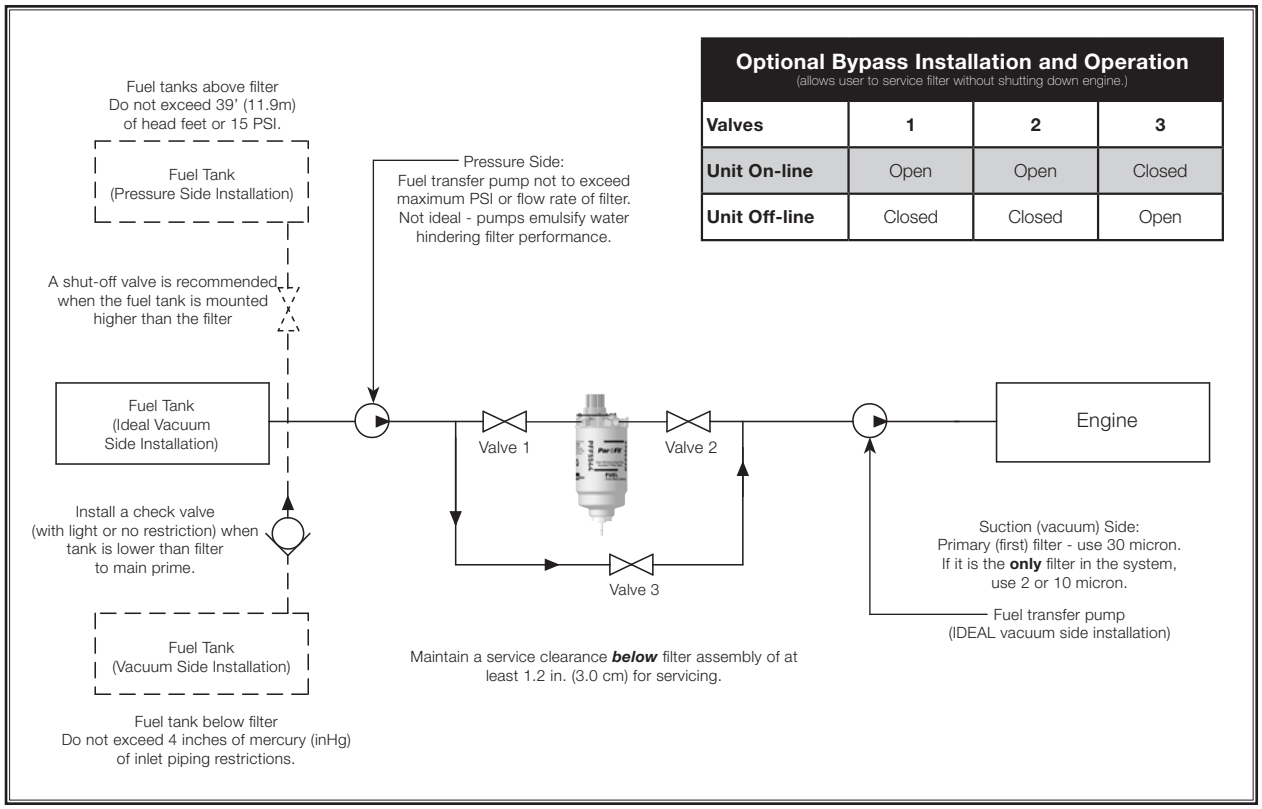
Top View



Back View



Installation Diagram



Installation Guidelines

Refer to Mounting Instructions and Installation Diagram and install as follows:

1. Obtain good ventilation and lighting.
2. Engine must be off for installation.
3. DO NOT smoke or allow open flames near installation.
4. Filter assemblies should be installed on vacuum side of fuel transfer pump for optimum water separating efficiency.
5. Mount filter assembly vertically in a location which provides accessibility and protection from heat, flames, or accidental impacts.
6. Maintain at least 1.2″ (3.0 cm) of clearance below filter for draining water and servicing the filter.
7. *Always adhere to applicable local piping regulations and codes.* Use maximum fuel line size possible and avoid reducers and elbows in order to keep restriction values as low as possible.
8. Connect water probe and heater wires (if applicable).
9. Refer to Priming The Unit.

Priming The Unit

1. Open vent plug.
2. Prime filter by operating hand primer pump until fuel spills out of vent port.
3. Close vent plug snugly by hand only - do not use tools.
4. Verify all other connections are tight.
5. Start engine and check for leaks.
6. Correct as necessary with engine off.

Service

Draining the Filter

Water is heavier than fuel and will settle to the bottom of the filter and appear different in color. In high humidity environments, check frequently (daily if a poor fuel source is suspected). These units are equipped with a water sensor to alert operator of a high water condition in filter unit.

1. Make sure engine is off and cool to the touch.
2. Open vent plug.
3. Open drain valve to remove water. Close drain valve immediately after water has emptied from filter. *Note: If drain valve is left open too long, entire fuel tank may drain of fuel.*

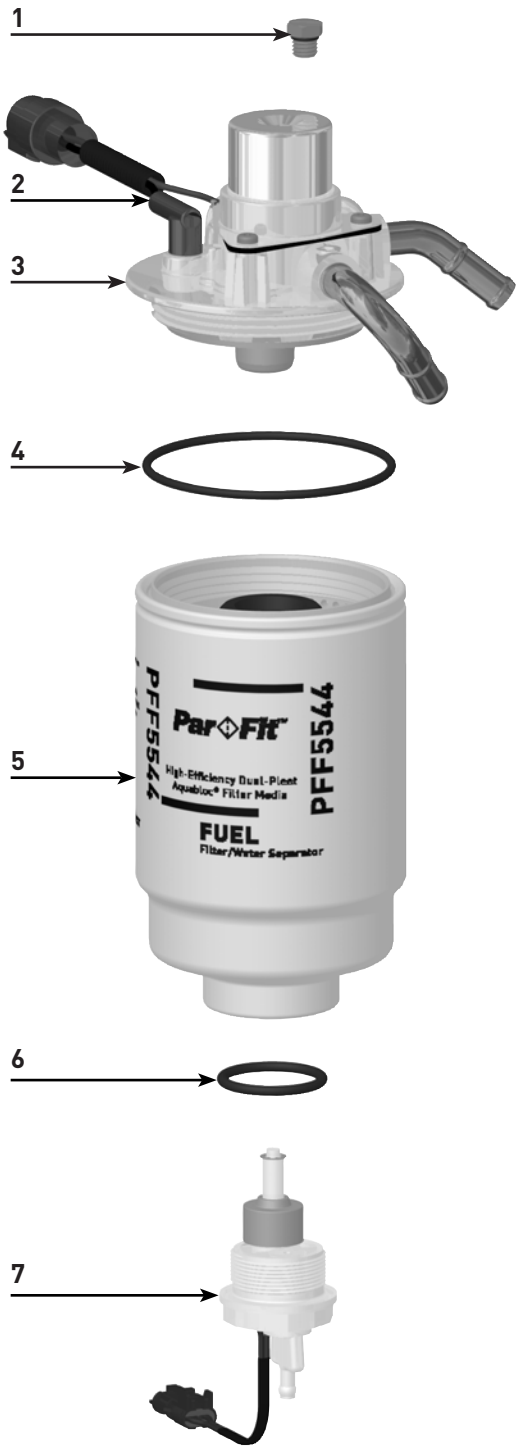
Filter Replacement

Frequency of filter replacement is determined by the contamination level in fuel. Recommended service intervals are as follows: every 500 hours, annually, or at the first indication of powerloss, whichever comes first. *Always carry extra filters as one tankful of excessively contaminated fuel can plug a filter.*

1. Make sure engine is off and cool to the touch.
2. Close all fuel valves, if applicable, to avoid excess fuel spills during servicing.
3. Disconnect water sensor and heater connectors.
4. Open vent plug and drain.
5. Drain unit of fuel.
6. Spin filter/drain off together, spin filter off drain assembly and dispose properly.
7. Lubricate new filter seals with motor oil or clean fuel.
8. Spin new filter on drain assembly. Spin both on head and tighten by hand only - do not use tools.
9. Close drain and vent plug.
10. Reconnect water sensor and heater connectors.
11. Reopen all fuel valves (if applicable).
12. Refer to Priming The Unit.

PFF4245R2
Replacement Parts

Part No.		Description
1.	**RK 30818**	10mm Vent Plug Kit
2.	**N/A**	Heater Harness
3.	**RK50194**	Head Assembly (includes #4)
4.	**N/A**	Filter O-ring
5.	**PFF5544**	Replacement Filter (2 micron) (includes #'s 4 and 6)
6.	**N/A**	Drain/Sensor O-ring
7.	**RK42043**	Drain/Sensor Kit (includes #6)



Troubleshooting Procedures

A major cause of power loss or hard starting is result of an air leak (or clogged filter). If your unit will not prime or fails to hold prime, check that drain, bowl and filter are properly tightened. Next, check all fitting connections and ensure fuel lines are not pinched or clogged with contaminants. If problems persist (and filter is new) call Racor Technical Support for assistance: (800) 344-3286 or (209) 575-7555.

Specifications	PFF4245R2
Application	Diesel, Vacuum Side
Maximum Flow Rate	45 GPH (170 LPH)
Fuel Ports:	
Inlet	1
Outlet	1
Fuel Port Size	1/2″ hose barb
Micron Rating	2
Height	10.6 in. (26.9 cm)
Width	5.5 in. (14.0 cm)
Depth	4.2 in. (10.7 cm)
Weight (dry)	2.3 lb (1.04 kg)
Minimum Service Clearance Below	1.2 in. (3.0 cm)
Water Collection Capacity	200cc
Minimum WIF Warning Level	108cc (+/- 20cc)
Mechanical N/O float style WIF sensor	Floats in water @ 62°F Sinks in diesel fuel at API Gravity >= 33° @ 60°F
Maximum Working Pressure	30 PSI (2.07 bar)
Clean Pressure Drop	2.2 PSI (0.15 bar)
Water Removal Efficiency	99%
Ambient Temp. Range	-10° to +180°F (-23° to +82°C)
Maximum Fuel Temperature	190°F (88°C)



Accessories

Hose Information

Racor hose for fuel, oil, and hydraulic fluids is fire resistant and meets SAE J1527 Type A class and SAE J1942 standards. This hose deliveres test-proven performance in a wide operating temperature range, constant working pressure in popular sizes, long lasting reinforced construction, kink and cut resistance, and compatibility with a variety of standard 100R5 fittings.



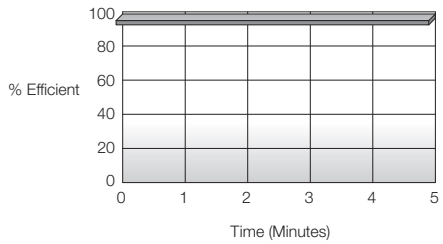
Specifications		CGH-10
Hose I.D.		0.5 in. (12.5 mm)
Hose O.D.		0.92 in. (23.0 mm)
Working Pressure		500 PSI (34.4 bar)
Burst Pressure		2000 PSI (137.8 bar)
Minimum Bend Radius		2.25 in. (55.0 mm)
Weight Per Foot	kg	0.39 lbs/ft (0.58 kg/m)
Inches in Mercury	InHg	20 InHg (68 kPa)

How to Order

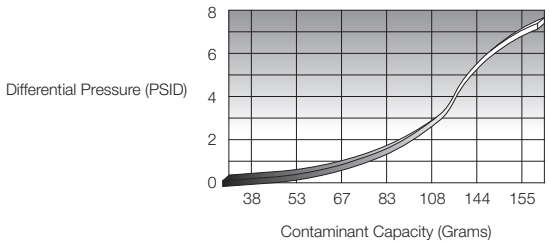
CGH	-10		-50
Basic Part Number	Number	I.D. Size	50 foot roll
	-10	**1/2˝**	

Performance Information

Test results are from controlled laboratory testing. Field results may vary.



SAE J1839 Water Separation



SAE J905 Solids Capacity
(using SOFTC-2A; 2 micron filter)

*PSI x 2.036 = inHg. (PSI x 6.895 = kPa)

Racor Additives

Racor additives are performance-enhancing products for all climates and seasons. There are several convenient sizes including a 16 oz. bottle, 1 and 5 gallon containers, and a 55 gallon drum. The high concentration of active ingredients in Racor additives allows for higher treatment rates. All Racor additives are alcohol-free.



Powershot+™ Diesel Conditioner

Racor Powershot+™ Diesel Fuel Conditioner is recommended for use in all engine applications using #1 and #2 diesel fuels.

With regular use of Racor Powershot+ Diesel Conditioner, fuel economy is improved, corrosion protection is provided and fuel stability is enhanced during storage.

Compatible with Biodiesel blends up to B20.



Diesel Performance Plus+

Racor Diesel Performance Plus+ has the same engine protection qualities as the Racor Diesel Conditioner Plus + and it has five times the cetane improver to deliver optimal engine performance. The added performance comes with improved lubricity and is alcohol free for better fuel system component protections.

Compatible with Biodiesel blends up to B20.



Diesel Biocide

Racor Diesel Biocide is a multifunctional petroleum distillate fuel additive. It is used to help maintain color stability and clarity; control bacteria, fungi, organic reaction and sludge formation; inhibit corrosion; and disperse existent sludge.

EPA Est. No. 072342-CA-001, EPA Reg. No. 1448-17-47099.

Compatible with Biodiesel blends up to B20.

Additive Part Numbers and Treat Ratios

Part Number	Description	Container Size	Treats
ADT 1111	Powershot+ Diesel Fuel Conditioner	11 ounces	30 gallons (136L)
ADT 1116	Diesel Conditioner Plus+	16 ounces	320 gallons (1,455L)
ADT 1201	Diesel Conditioner Plus+	1 gallon	2,560 gallons (11,638L)
ADT 1555	Diesel Conditioner Plus+	55 gallon drum	140,800 gallons (640,090L)
ADT 2116	Diesel Biocide	16 ounces	1,280 gallons (5,819L)
ADT 2201	Diesel Biocide	1 gallon	10,240 gallons (46,552L)
ADT 2405	Diesel Biocide	5 gallons	51,200 gallons (232,760L)
ADT 2555	Diesel Biocide	55 gallon drum	563,200 gallons (2,560,359L)
ADT 3116	Diesel Performance Plus+	16 ounces	80 gallons (364L)
ADT 4116	Diesel Winter Plus+	16 ounces	128 gallons (582L)
ADT 4201	Diesel Winter Plus+	1 gallon	1,024 gallons (4655L)
ADT 4555	Diesel Winter Plus+	55 gallon drum	563,200 gallons (2,560,359L)
ADT 5111	Powershot+ Gasoline Conditioner	11 ounces	15 gallons (68L)
ADT 5116	Gasoline Conditioner Plus+	16 ounces	320 gallons (1,455L)

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