

RCI Technologies

Fuel Purifier



"THE PERMANENT SOLUTION"
Made in the U.S.A.



THE RCI TECHNOLOGIES FUEL PURIFIER

What is an RCI Technologies Fuel Purifier?

The *RCI Technologies fuel purifier* is a simple one step unit that removes 99.8% of water and 95% to 98% of dust, dirt, and other normal and natural contaminants found in all diesel fuel. Even today's "clean" diesel fuel will easily become contaminated during transportation and storage. Unlike all other products on the market, the *RCI Technologies fuel purifier* performs this function without the use of a replaceable, changeable, or clean-able filter element, cartridge, or bowl. By removing contamination immediately before the fuel enters the engine's filter system, the purifier delivers cleaner fuel, (virtually eliminating filter clogging) and therefore greatly extending maintenance intervals.

How does the RCI Technologies Fuel Purifier work?

The *RCI Technologies fuel purifier* is a unique product utilizing a three-stage purification process using two well-known fuel separation principles, centrifugal and coalescence. By using these two principles, water and other contaminants are separated from the fuel. This eliminates fuel filter clogging, related breakdowns, down time, and frequent filter replacements. As the fuel enters the purifier, it flows downward in a circular movement through an internal baffle system entering the lower chamber of the purifier.

In the first stage of purification, the velocity of the fuel slows down considerably, allowing any free water droplets and other contaminants to maintain their mass and not emulsify with the fuel. These impurities accumulate and remain at the bottom of the purifier until purged.

In the second stage of purification, the fuel migrates through three perforated baffle plates to stop any particulates and attract, by way of coalescence, any water droplets still remaining.

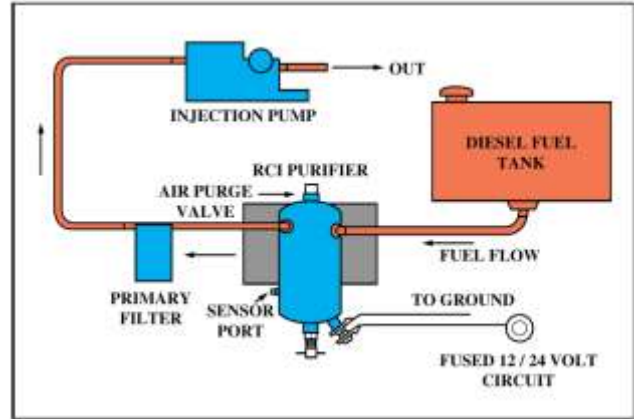
In the final stage of purification, the fuel passes through our patented coalescence medium to assure that any small water droplets or particulates will be coalesced out of the fuel stream. Only the clean fuel rises to the top, providing a cleaner burning fuel for quicker ignition and better combustion. **Consistent clean fuel helps to increase the engine's dependability, power, and efficiency.**

On the FP-50, FP-80, FP-400 and FP-700, a heating element is optional to preheat the fuel. This process helps liquefy the paraffin providing better lubrication for the entire fuel system including the pump and injectors. This heating element eliminates any wax or gelling problems.

The *RCI Technologies fuel purifier* is simple to install, and provides *The Permanent Solution* to fuel system management and control. *RCI Technologies* also offers an optional water sensor kit, with an alarm signal, indicating purging is required.

Advantages of the RCI Technologies Fuel Purifier!

There are many advantages and benefits to the owner and operator with the installation of an *RCI Technologies fuel purifier*. These advantages include the following:



ENGINE BENEFITS

- Eliminates all water from the fuel system, thus avoiding time consuming break downs while preventing the formation of damaging sulfuric acid.
- Removes all solid particles from the fuel system, including oxides, dirt, rubbish, and all other impurities with a density greater than that of the fuel itself.
- Preheats the paraffin contained in all fuel, providing superior lubrication of the entire fuel system including the injector pump, injectors and cylinder walls. (Heater-optional part)

ECONOMIC BENEFITS

- Reduces down time.
- Extends the life of the injection pump and the injectors.
- Extends the life of the primary filter.
- Protects and extends the life of the engine.
- No internal or external parts requiring service or replacement.

ECOLOGICAL BENEFITS

- Increases the operating life of fuel filters.
- The major component of fuel filters is paper. Use of an *RCI Technologies fuel purifier* results in fewer trees being cut each year.
- Reduction in land fill due to fewer fuel filter replacement.
- Providing fuel that is free of water and suspended particulates is the first step in exhaust emissions control.
- Significant improvement in exhaust emissions. Tests on the *RCI Technologies fuel purifier* show that smoke emissions were reduced by 17.3%, carbon monoxide emissions by 10.4%, and nitrogen oxides by 5.9%.

— Truly a tool to do the fuel purification job. —





FP 50



Small/Mid-Size Marine and Sports Equipment

FP 80



Small Diesel Engines

FP 400



Gen Sets, Heavy Duty Diesel Trucks, Machinery and Agricultural Equipment

FP 700



Marine Equipment

FP 800



Stationary Diesel Pumps and Equipment

FP 1000



Diesel Pumping Stations, Fuel Docks and Diesel Locomotives

FP 1500



Large Pumping Stations, Aircraft Fueling and Fuel Docks

Base Stand



Optional for units FP 1000 & FP 1500

FP 2000



Larger Pumping Stations, Aircraft Fueling and Fuel Docks

FP 3000



Larger Pumping Stations, Aircraft Fueling and Fuel Docks

FP 4000



Larger Pumping Stations, Aircraft Fueling and Fuel Docks



Standard Features

Model	Nominal Flow	In/Out Couplings	Top Port	Sensor Port	Comm/Brass Drain Valve	Drain Port	Measurements	Strap Mount	Brass Air Purge Valve	Gross Weight
FP 50	.5 gal/min	3/8" NPT	1/2" NPT	1/8" NPT	1/2"	1/2"	8.04" H x 3" W	Yes	Yes	4 lbs.
FP 80	1 gal/min	1/2" NPT	1/2" NPT	1/8" NPT	1/2"	1/2"	8" H x 4.5" W	Yes	Yes	6 lbs.
FP 400	2 gal/min	1/2" NPT	1/2" NPT	1/8" NPT	1/2"	1/2"	12" H x 4.5" W	Yes	Yes	9 lbs.
FP 700	7 gal/min	3/4" NPT	1/2" NPT	1/8" NPT	1/2"	1/2"	16" H x 4.5" W	Yes	Yes	11 lbs.
FP 800	15 gal/min	1" NPT	1/2" NPT	1/8" NPT	1/2"	1/2"	16" H x 4.5" W	Yes	Yes	11 lbs.
FP 1000	40 gal/min	1" NPT	1/2" NPT	1/8" NPT	-	1"	20.5" H x 7" W	Yes	No	23 lbs.
FP 1500	90 gal/min	2" NPT	1/2" NPT	1/2" NPT	-	1"	39.24" H x 7" W	Yes	No	41 lbs.
FP 2000	100 gal/min	2" NPT	1" NPT	1/2" NPT	-	1"	42.5" H x 15" W	No	No	124 lbs.
FP 3000	200 gal/min	3" NPT	1" NPT	1/2" NPT	-	1"	60" H x 15" W	No	No	120 lbs.
FP 4000	400 gal/min	4" NPT	1" NPT	1/2" NPT	-	1"	76.5" H x 15" W	No	No	285 lbs.

Flow rate shown may vary due to application. Units include mounting hardware, except fuel line fittings.

* NOTE: Water Sensor kits available through RCI Technologies or your local dealer.

Upgrades and Options

Model	Heating Element 1	Heating Element 2	Heating Element 3	Heating Element 4	Sensor Port	Base Stand	Water Sensor Kit
FP 50	6 AMP, 12 Volts	3 AMP 24 Volts	120 Volts	240 Volts	1/8" NPT	No	Yes
FP 80	6 AMP, 12 Volts	3 AMP 24 Volts	120 Volts	240 Volts	1/8" NPT	No	Yes
FP 400	6 AMP, 12 Volts	3 AMP 24 Volts	120 Volts	240 Volts	1/8" NPT	No	Yes
FP 700	6 AMP, 12 Volts	3 AMP 24 Volts	120 Volts	240 Volts	1/8" NPT	No	Yes
FP 800	6 AMP, 12 Volts	3 AMP 24 Volts	120 Volts	240 Volts	1/8" NPT	No	Yes
FP 1000	6 AMP, 12 Volts	3 AMP 24 Volts	120 Volts	240 Volts	1/8" NPT	Yes	Yes
FP 1500	6 AMP, 12 Volts	3 AMP 24 Volts	120 Volts	240 Volts	1/2" NPT	Yes	Yes
FP 2000	6 AMP, 12 Volts	3 AMP 24 Volts	120 Volts	240 Volts	1/2" NPT	No	Yes
FP 3000	6 AMP, 12 Volts	3 AMP 24 Volts	120 Volts	240 Volts	1/2" NPT	No	Yes
FP 4000	6 AMP, 12 Volts	3 AMP 24 Volts	120 Volts	240 Volts	1/2" NPT	No	Yes



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