

# 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 100% of the free 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 cleanable 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 a 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.

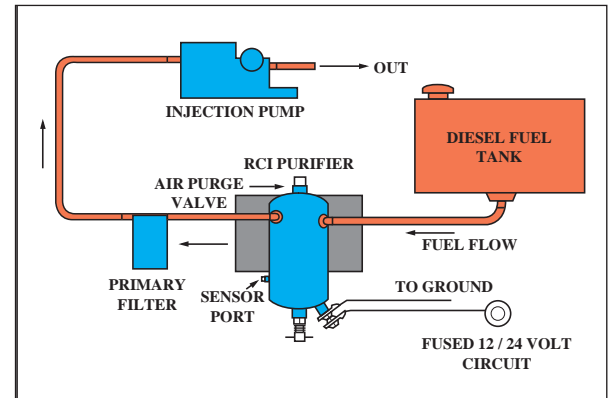
The **RCI Technologies fuel purifier** is simple to install, and provides **The Permanent Solution** to fuel system management and control. **RCI Technologies** also offers an optional water sensor kit, with an alarm signal, indicating purging is required.

## 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. —



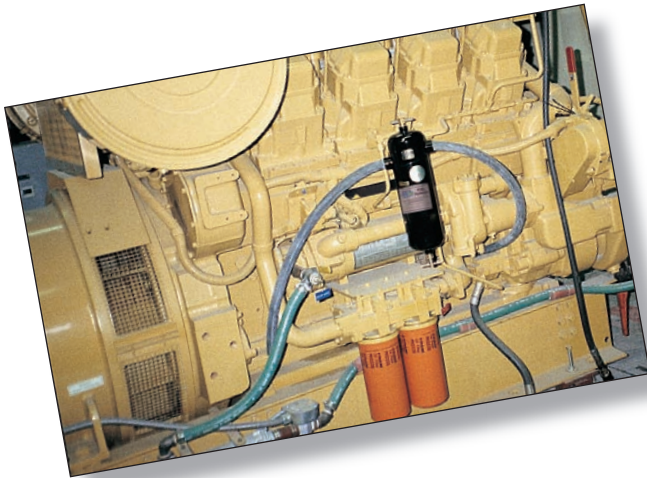


“removed water, rust and heavy sludge from our fuel storage tanks.”

U.N.L.V. Maintenance Specialist

“eliminated clogged filters”

LAIDLAW Transit, Inc.



“The RCI fuel purifier is our first line of defense.”

**AVIS**





## SPECIFICATIONS:

MODEL	FP 50	FP 80
Nominal Flow	1.9 lts/min (.5 gal/min)	3.80 lts/min (1 gal/min)
In and Out Couplings	3/8" NPT	1/2" NPT
Top Port	1/2" NPT	1/2" NPT
Heating Element (optional)	6 amp 12 volts or 3 amp 24 volts	6 amp 12 volts or 3 amp 24 volts
Sensor Port*	1/8" NPT	1/8" NPT
Drain Valve	Comm/Brass 1/2" Valve	Comm/Brass 1/2" Valve
Height	204.2 mm (8.04")	203.2 mm (8.0")
Width	76 mm (3.0")	114.3 mm (4.5")
Gross Weight	4 lbs.	6 lbs.
MODEL	FP 400	FP 700
Nominal Flow	7.60 lts/min (2 gal/min)	26.5 lts/min (7.0 gal/min)
In and Out Couplings	1/2" NPT	3/4" NPT
Top Port	1/2" NPT	1/2" NPT
Heating Element (optional)	6 amp 12 volts or 3 amp 24 volts	6 amp 12 volts or 3 amp 24 volts
Sensor Port*	1/8" NPT	1/8" NPT
Drain Valve	Comm/Brass 1/2" Valve	Comm/Brass 1/2" Valve
Height	304.8 mm (12.0")	406.4 mm (16.0")
Width	114.3 mm (4.5")	114.3 mm (4.5")
Gross Weight	9 lbs.	11 lbs.
MODEL	FP 800	FP 1000-S
Nominal Flow	56.8 lts/min (15 gal/min)	151.4 lts/min (40 gal/min)
In and Out Couplings	1" NPT	1" NPT
Top Port	1/2" NPT	1/2" NPT
Heating Element (optional)	N/A	N/A
Sensor Port*	1/8" NPT	1/8" NPT
Drain Valve	Comm/Brass 1/2" Valve	Standard 1/2" Drain Port
Height	406.4 mm (16.0")	20.5" Strap mount (Platform available)
Width	114.3 mm (4.5")	177.8 mm (7.0")
Gross Weight	11 lbs.	22 lbs.
MODEL	FP 1500-S	(NOT SHOWN)
Nominal Flow	340.7 lts/min (90 gal/min)	<b>FP 3000-SB</b>
In and Out Couplings	2" NPT	757.1 lts/min (200 gal/min) - 3" NPT
Top Port	1/2" NPT	
Sensor Port*	1/2" NPT	<b>FP 4000-R</b>
Drain Valve	Standard 1/2" Drain Port	1514 lts/min (400 gal/min) - 4" NPT
Height (From ground to top of unit)	39.24" Strap mount (Platform available)	
Width	177.8 mm (7.0")	
Gross Weight	38 lbs.	

Flow rate shown may vary due to application.

Units include all mounting hardware, except fuel line fittings, brass air purge valve is standard on models FP 80 through FP 3000-SB.

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



466 West Arrow Highway Suite D • San Dimas, California 91773  
 Phone: (800) 868-2088 • (909) 305-1241 • Fax: (909) 305-1245  
[www.rcipurifier.com](http://www.rcipurifier.com)