



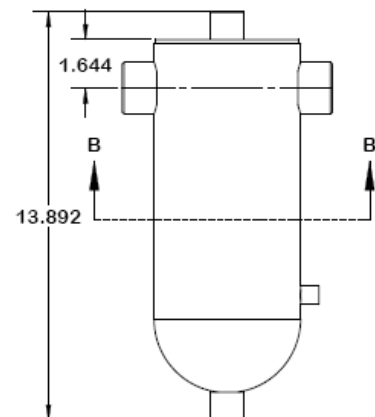
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Model 5x12 Fuel Purifier

For Stationary Diesel Pumps, Generators and Equipment with Engines from 175 to 650 Horse Power

The Dieselcraft Fuel Purifier is a simple one step unit that removes 99% of the water and 95 to 98% of heavy particles. Unlike all other products on the market, the Dieselcraft Fuel Purifier performs its function without the use of a replaceable, changeable or cleanable filter element. This is the ONLY unit with a bed of activated alumina to help remove water and contamination. Removing the contamination immediately before the fuel enters the engine's fuel system, the Dieselcraft Fuel Purifier delivers cleaner fuel, greatly reduces filter clogging by reducing bacterial growth and therefore extending maintenance intervals.

| | |
|----------------------|--|
| Product | Universal Fuel Purifier |
| Model | 5x12 |
| Maximum Flow | 3 GPM, 11.5 LPM |
| In and Out couplings | 1 inch NPT Forged Steel |
| Top Port | ½ inch NPT |
| Drain Port | ½ inch NPT |
| Sensor Port | 1/8 inch NPT |
| Width / Diameter | 5 inches, 127 MM |
| Gross Weight | 10 pounds, 22 kilos |
| Finish | Epoxy Powder Coat Grey Custom colors available |
| Options | Mounting Strap Part #MG-03 Mounting Strap for Water Sensor Part #MG-49 Tripod leg assembly Part # MG-44 Water Sensor Part #06-5 |





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How the purifier works

This separator is based on surface tension principle. Since diesel and water have different surface tension as well as density, when a mixture of diesel and water is spread over a large area water droplets and large solids will separate from the fuel.

In fuel water separation, the larger the surface area the better. Dieselcraft separators are engineered for maximum "residence time" based on flow rate. **Residence time** is a broadly useful concept that expresses how fast something moves through a system in equilibrium. The longer the residence time the better the cleaning.

Dieselcraft utilizes matched flow rate to surface area and activated alumina to get the water to agglomerate and drop out of the fuel.

Activated alumina is the same chemical substance as sapphire and rubies (but without the impurities that give those gems their color). It has a very high surface-area-to-weight ratio. That means it has a lot of very small pores, almost like tunnels, that run throughout it. This is the key to water removal in the Dieselcraft Purifier.

Besides maximum residence time and more surface area the other key internal component that makes Dieselcraft better is the bottom baffle that retains the activated alumina. This plate is only perforated on the outer edge. By doing this the water is forced to the outside surface of the purifier and making it less likely of flowing down the center of the system and being drawn up the exit pipe by the fuel flow before it has time to drop to the bottom of the system. This is not the case with other makers that use fully perforated material throughout.

The clean fuel is drawn out of the unit and into the primary fuel filter of your system. Water and contamination is drained from the bottom of the unit. This process continues as long as the engine fuel pump is operating.

With the Dieselcraft Separator, 100% of the free and visible water in fuel and 95% of the filter clogging contaminants that can cause engine performance problems are eliminated.



Purification System Installation Instructions Operation and Maintenance Manual



The poly bag containing fittings will have the Megaloc Sealant, a reducing bushing with a bleeder valve installed for the top of the separator, a ball valve for the bottom and one pipe plugs. The 1/8 NPT pipe plug is intended for the sensor port if not sensor is purchased. This may be installed. The sensor port in on the left side as pictured above.

If the optional water sensor has been ordered refer to the sensor instructions for mounting information.

Apply MEGALOC Sealant to the joints.

Install the ball valve in the bottom of the separator using the supplied MEGALOC Sealant. Close the valve before filling and while the engine is running.

The system has been pressure tested. If you remove any fittings you must **re-apply Sealant to this joint after filling.**

Note: The inlet port is indicated by the label and the FLOW DIRECTION arrow.

Locate an area along the vehicle frame rail, vessel bulkhead or equipment fuel line **between the fuel tank and primary fuel**

filter that is unrestricted and clear for mounting the Separator/System. Splice the diesel fuel line.

Do not mount the separator more than 3 inches higher than the primary filter. In line is preferred.

When you tap into your existing fuel line if the tank is higher than the fuel pump, fuel will flow freely from the tank to the ground. Do not drain your tank on the ground.

Keep in mind that this fuel flow is needed to fill the Dieselcraft system. If you mount the system too high the fuel flow from the tank to the engine will be restricted.



If using the optional mounting bracket / strap, mount the Separator/System vertically making sure that the IN and OUT ports are in the correct position for proper flow. Pulling fuel through the system is preferred. Pushing may have issues emulsification of fuel and water.

This is not a pressure vessel.

If installing the stabilizer it must always be AFTER the fuel purifier.

NOTE: The inlet port is ALWAYS determined by 1. The label and 2. The inlet port is defined by the port you can see into the steel tube and no other part of the purifier. If you see the open cavity you are looking in the outlet port.

Make sure that there is adequate room below the Separator/System for access to the drain port and above to enable you to fill the separator before startup.

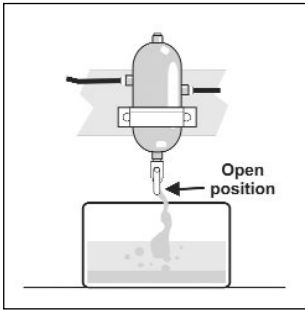
WARNING: The use of incorrect fittings may alter the manufacturer's specifications and adversely affect the Separator/System performance.

Fill the Separator with clean diesel fuel. Close the system. Refer to your owner's manual as to the procedure for bleeding air from the system as when you replace fuel filter.

Start the engine and check for leaks.

If in 24 hours you encounter hard starting, it may be an indication of an air leak in the system. It is imperative to apply ample sealant to all joints.

ROUTINE SEPARATOR/SYSTEM MAINTENANCE



The Separator/System should be checked for contaminants in accordance with the vehicle/ equipment recommended oil change schedule, but not to exceed 500 hours or 5,000 miles.

Make sure that the vehicle ignition is in the off position and in park. Set the parking brake to insure that the vehicle will not move.

With a suitable container as large as or larger than the separator, open the drain valve and drain the unit until all contaminated fuel is removed. NOTE: It is not necessary to completely drain Separator/System of all fuel. When clean diesel fuel appears the draining process is complete.

When cleaning is complete close the drain.

Dispose of the contaminated fuel properly. It is considered HAZARDOUS WASTE.

Model 06-5 Water Sensor Detects the presence of water in fuel or in oil.



Water Sensor Specs.

Model 06-5 Sensor is a solid state sending unit and a self grounding stainless steel probe. The probe insures 100% that a good ground is made. It has a ground wire that is tied to the ground of the sending unit. This eliminates the problem of finding a good ground at the probe location. The ABS electronic enclosure houses two LED lights, the Green LED light indicates the sensor has power and all grounds are good so the system is ready to work. The larger Red LED will come on and stay on when water is detected. The unit also incorporates an audible

alarm. This buzzer will sound for 5 seconds to bring attention to the water detected.

Installation Instructions.

You have received the sending unit with indicator lights and buzzer and the probe with two wires attached.

You will need additional 20 gage wire and wire nuts or wire connectors to mount the sending unit and place it where you can see it.

Where the wires go.

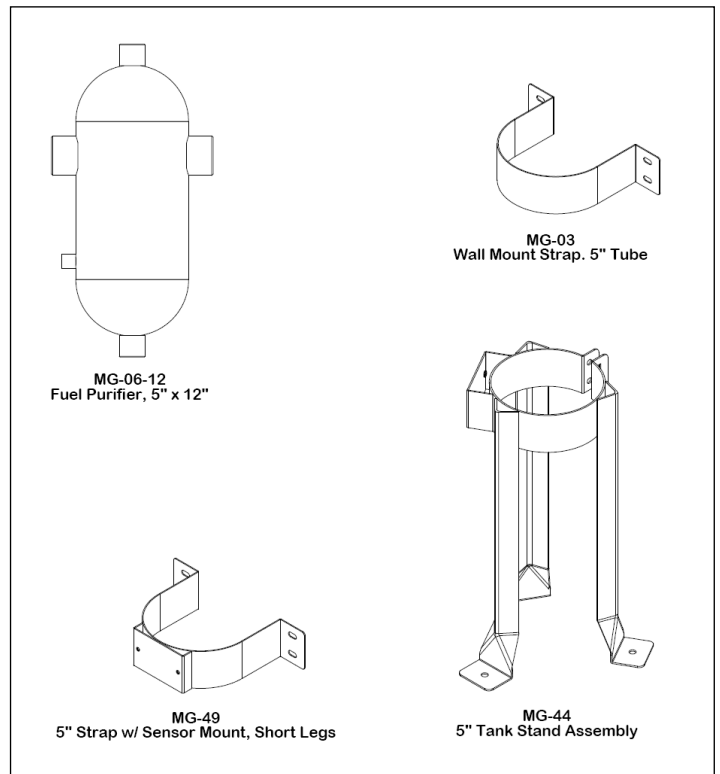
Red: Is connected to your 12 or 24 volt power supply.

Black: From the probe and from the sending unit the black wire goes to ground.

Green: From the probe and from the sending unit the green wires are connected.

When water is present the sensor closes the circuit and the buzzer sounds for 5 seconds, the indicator RED light comes on. Remove the water and the light goes out.

Parts



Warranty Information

** 5 year Warranty*

The Dieselcraft Fuel Purifier is warranted for 5 years against defects and workmanship. Warranty is void if product has been damaged by unseasonable use or is opened.

For assistance contact:
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