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# DIESELFLO 12V DIESEL PUMP

**OPERATORS HANDBOOK**



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**ADPX040V1P**

## SAFETY INFORMATION

The following safety alert symbols are used in this manual. Obey all safety messages that follow this symbol to avoid possible injury or death.



This symbol indicates an imminently hazardous situation which will result in death or serious injury if action is not taken immediately.



This symbol indicates a potentially hazardous situation which could result in death or serious injury if action is not taken.



This pump is designed for automotive diesel fuel only. The motor of the pump is not explosion proof; DO NOT USE the pump in or around flammable vapours. DO NOT USE the pump with gasoline, petrol or other flammable liquids with flash points less than 55°C (131°F). DO NOT use this pump to transfer diesel fuel when ambient temperature exceeds the diesel flash point temperature 55°C (131°F). DO NOT operate the pump in the presence of any source of ignition including running or hot engines, lighted cigarettes, gas or electric heaters. For safe operation, the diesel fuel transfer system must be properly grounded; this means a continuous metal to metal contact between components, supply tanks, pump, hose, metal nozzle and receiving tank. Failure to follow the above mentioned instructions may result in death or serious injury from fire or explosion.

It is responsibility of the operator of the pump to:

1. Know and follow applicable national and local safety rules pertaining to installing and operating electrical equipment for use with petroleum fluids.
2. Know and follow adequate safety precautions when handling petroleum fluids.
3. Insure that all operators have access to adequate instructions concerning safe operating and maintenance procedures.



This manual is an integral part of the pump. Before starting, in order to get best results and maximum performance from the pump, please read carefully these operating instructions and store the manual in a safe place for future reference. Do not operate pump while unattended. When the pump is not in use, store it in a safe place out of reach of children. Before performing any maintenance, installation or inspection, disconnect the pump from the power supply. To disconnect the pump do not pull the cable, but remove directly the plug/clamps; don't touch plug/clamps/switches with wet hands. DO NOT modify any part of the pump or pump kit. Prevent injury by observing basic safety rules. Use the pump for diesel transfer only: misuse of the pump can lead to injury or damage to people, goods and animals. During transferring operation, pay attention to avoid spillage of diesel; avoid prolonged contact with diesel fuel. Always use protective glasses, gloves and aprons in case of splashing or spillage.

Before operation, always check that the pump and any associated plumbing etc. is in order. If a problem is found, DO NOT OPERATE the pump. If possible rectify the situation immediately; if this is not possible tag out pump unit to prevent its operation and notify responsible personnel immediately. Never point the diesel jet at electrical equipment, cables, open flames, hot object, persons, animals, goods or any other location than the receiving tank.

TECHNICAL SPECIFICATIONS

Self-priming rotary vane pump, equipped with integrated by-pass valve in pump body.  
Pump head is driven by a DC brush motor with IP55 class protection. Motor is equipped with thermal fuse protection  
Pump is designed for the transfer of Diesel Fuel only.  
Pump is designed for intermittent use, with a working cycle of 30mins.  
PUMP ONLY: Electric pump 12VDC with switch, supply wires and battery clamps  
PUMP KIT: Kit including pump only, suction hose 1", antistatic delivery hose 3/4" and automatic shut off nozzle with swivel connection.

MODEL	VOLTAGE	POWER MAX W	CURRENT NOM A	CURRENT MAX A (BYPASS)	FUSE	PORT
DieselFlo	12V DC	280	12	20	Thermal	3/4" BSP

Noise Level: Under normal working conditions, the noise emissions do not exceed the value of 70dB at a distance of 1M from the pump.

- In order to maximise pump performance
- Minimise length of suction and discharge lines;
  - Avoid, if possible, bends and throttling in pipe work;
  - Use tubing with diameter equal or greater than 3/4";
  - Use power extension cable only if necessary (minimum section 2x4 mm²).

INSTALLATION

Self-priming rotary vane pump, equipped with integrated by-pass valve in pump body.  
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If the application is for gasoline, petrol or fluids that require an explosion-proof product,  
**DO NOT INSTALL THIS ELECTRIC PUMP.**

PRELIMINARY OPERATIONS:

- Check that the product has not suffered any damage during transport or storage,
- In case of damages or missing parts, please contact the dealer immediately.
- Remove the protection plugs on inlet and outlet of the pump;
- Attach the pump using screws of adequate diameter for the fixing holes provided in the bracket of the pump.



**ELECTRICAL CONNECTIONS**  
It's the responsibility of the installer to perform the electrical connections with respect for the applicable local and/or national regulations.

- Check that the electrical supply specifications correspond to those shown on the plate.  
I.e. 12VDC not 24VDC.
- Failure to do so could damage the pump.

## INSTALLATION CONT.



### WARNING

Protect the supply cable from oil, high temperatures and cutting edges. Always inspect the supply cable for damages: in case of damage replace the supply cable immediately with an original one. Prevent cables, electrical receptacle, clamps and switches from water or flammable fluids and avoid high moisture levels for the pump. If necessary, use extension cable 5 meters length with minimum section 2x4 mm<sup>2</sup>, unwinding completely the extension cable.

All metal parts must be always grounded.

**DIESELFLO 12VDC:** wire the 2 clamps: red clamp at positive pole (+) and black clamp at negative pole (-) of the battery.

### Pipe work connections

Before connection make sure that the tubing, the inlet - outlet of the pump and the suction tank are not clogged and free of dirt, rust, etc. that could damage the pump and/or clog the strainer. The threaded connections must be 3/4" BSP type (do not use tapered threaded joints that could damage the threaded pump ports). The pipes and hose connections must be leak-proof, to avoid air or fuel leakage and pump trouble. When the hoses are not supplied, it is recommended that the length of both suction and discharge hoses are minimized, use hoses with adequate characteristics for diesel fuel, antistatic, with diameter equal or greater than 3/4" and working pressure equal or greater than 10 bar. In addition the suction hose should be suitable for functioning under suction pressure. Connect the pump, observing the right fuel flow, indicated by the arrows on the pump body.



### WARNING

The use of tubing unsuitable for use with diesel fuel can damage the pump, injure persons and result in pollution, because of diesel fuel splashing/spilling.

The discharge hose and the accessories (nozzle, meter, etc.) must be grounded (to dissipate the electrostatic currents), alternatively the hoses can be of antistatic type). It is the installer's responsibility to use tubing with adequate characteristics.

## OPERATION



### DANGER

To prevent injury, observe precautions against electrical shock, fire or explosion when dispensing fuel.

- Do not operate switch with wet hands
- Do not operate the pump in the presence of any source off ignition including running or hot engines, lighted cigarettes or gas or electric heater.



### WARNING

### Operation without fuel

DO NOT LEAVE the pump running without fuel. Dry running (even for few minutes only) will damage the pump and void warranty. If pump does not prime within 40 seconds of turning on and releasing nozzle – STOP PUMP – check to ensure that suction hose is immersed in diesel and all suction fittings and connections are air tight.

Begin dispensing by turning the switch on the pump to the ON position and opening the delivery valve (the lever of the nozzle, if present) solidly grasping the end of the hose; at end of diesel fuel dispensing operation, turn the switch OFF at the pump and disconnect the main power supply.



### WARNING

Pump is suitable for operation in ambient temperatures between -15°C and +40°C. Serious or fatal electrical shock can result from operating electrical equipment in damp or wet locations.

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**OPERATION CONT.**



Avoid prolonged contact with petroleum fuels. Use protective goggles, gloves and aprons in case of splashing or spills. Change saturated clothing and wash skin promptly with soap and water.



This pump is designed for the transfer of diesel fuel with flash point at or above 55 °C (131°F). **DO NOT USE this pump for other types of fluid.** Use of this pump with other types of fluid may damage components and will void the warranty.



**Operating in by-pass**  
Pump is equipped with an automatic by-pass valve. Pump will go into by-pass mode when the discharge line is closed. To prolong the life of the pump, minimize time spent in by-pass.  
  
Operation with the discharge line closed - by-pass mode - is allowed for maximum of 2 minutes only. Longer pump running in by-pass mode will cause elevated diesel temperatures with associated risk of fire or explosion.

**MAINTENANCE**



Observe precautions against electrical shock when servicing the pump! Always disconnect power before attempting any service work. Never apply electrical power to the pump when any of the cover plates are removed. The pump is designed for minimal maintenance, it is recommended observe the following suggestions:

**DAILY:**  
Keep the pump exterior clean to help identify leaks, check the connection/joints sealing and repair immediately any leakage, if necessary. Check the electrical cable condition: if damages/cuts or other defects are recognized, replace the cable immediately with an original one, this operation must be performed by an expert technician. Check the conditions of suction and discharge hoses: if fissures, cuts, bulges or other damages are recognised, replace the hose immediately with an original one.

**WEEKLY OR EVERY 5 HOURS OF WORK:**  
Inspect and/or clean the strainer located on the suction hose; a clogged strainer will reduce the fuel flow delivery and the pump lifetime; to disassemble the retainer unscrew the strainer from the socket, clean by air -blast spray, then reassemble the strainer and the plug.

**EVERY 2 YEARS IT'S RECOMMENDED THAT THE DISCHARGE HOSE IS REPLACED.**

**TRANSPORT**  
Switch off the pump, disconnect the electrical wiring, disconnect the lines and flush the pump. Package properly the product taking care to avoid shocks during transportation.

**DISPOSING OF CONTAMINATED MATERIALS**  
Don't disperse contaminated parts or materials into the environment. Refer to local regulations for proper disposal of contaminated product.

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**TROUBLESHOOTING**

TROUBLE	POSSIBLE CAUSE	CHECK/SOLUTION
Motor does not run	No electrical power to pump	Check electrical connections, extension cable and fuse.
		Pump is equipped with a thermal fuse – allow 10mins for this to reset.
		Check for possible locking of rotating shaft
Motor runs slowly and low fuel flow	Low voltage in the electric line	Bring the voltage to within the correct limits.
		If using extension cable, cable sections must be 2x4 mm <sup>2</sup> minimum.
Motor runs, but no fuel delivery	Tank level low	Add fuel to tank
	Clogged suction line	Clean suction line
	Air leak in system	Check all joints

WARRANTY

The product is guaranteed in accordance with statutory/country-specific regulations, only when it is used for its intended purpose. **DIESELFLO pump is guaranteed to be free from defects in workmanship or materials for a period of 12 months.** The warranty period shall begin on the date of purchase with an original sales receipt. The warranty is limited to demonstrable defects that can be attributed to workmanship and/or material; the buyer will pay for any transport costs and will bear any transporting risk responsibility. Failure/defects resulting from normal wear, incorrect and/or improper use, erroneous connection of the device or modifications (without written authorization of Rapid Spray) are not covered by the warranty. Rapid Spray cannot be held liable for any incidental or consequential damages arising from the ownership or use of this product.



All diesel must have their warranty activated by registering online within 21 days of purchase by the end user. Once registered, the full 1 year warranty will be applicable.



See <https://www.rapidspray.net/resources/warranty-registration> to register your Rapid Spray product for warranty or call 1800 011 000.



[www.rapidspray.net](http://www.rapidspray.net)

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