

# MÁY BƠM XĂNG DẦU DÙNG ĐỘNG CƠ ĐIỆN 1 CHIỀU DC 12 VOLT

The Most Trusted name in Pumps & Meters

**FILL-RITE.**

## 12 Volt DC Rotary Vane Pump Series 1200C



Model 1210C Battery Powered Pump Shown

### Description of Included Models

Model Number	Description	Shipping Weight
FR1205C	<b>Basic 12 volt DC pump</b> with 18' of battery cable	<b>22 lbs 10.0 kgs</b>
FR1210C	<b>Basic 12 volt DC pump</b> with 18' of battery cable, hose & nozzle and telescoping suction pipe	<b>33 lbs 15.0 kgs</b>
FR1211C	<b>Basic 12 volt DC pump</b> with 18' of battery cable, hose & nozzle, telescoping suction tube and Model 807C meter installed	<b>39 lbs 17.7 kgs</b>
FR2410C	<b>Basic 24 volt DC pump</b> with 18' of battery cable, hose & nozzle and telescoping suction pipe	<b>15 lbs 6.8 kgs</b>
FR2411C	<b>Basic 24 volt DC pump</b> with 18' of battery cable, hose & nozzle, telescoping suction pipe and Model 807C meter installed	<b>15 lbs 6.8 kgs</b>

## Safety Listings

Approval Mark	Organization Description	File Number	Guide Number
	<b>Underwriters Laboratories Inc.</b> , a nationally recognized independent organization for testing of products to ensure public safety. Recognized and accepted in USA, Canada and other countries	E43462	PTDR
	Indicates compliance with applicable European standards.	N/A	N/A
	<b>Australian Certification Program</b> , Aus EX 3620 by Test Safe Australia.	N/A	N/A

## Available Options

Option	Description	Adjustment to Shipping Weight (lbs.)	Adjustment to Shipping Weight (kgs.)
A	Upgrade to automatic nozzle from standard manual nozzle	2.0	.9
L	Unit equipped with meter registering liters in place of standard gallon meter	-	-
-X001	Unit supplied less hose	(5.0)	(1.4)
-X002	Unit supplied less telescoping suction tube	(2.0)	(0.9)
-X003	Unit supplied less nozzle	-	-
-X005	Unit supplied less hose and nozzle	(6.0)	(2.7)

## Accessories

<b>Part Number</b>	<b>Description</b>
<b>4200F9111</b>	Nozzle Spout Hook (for automatic nozzles)
<b>700F3135</b>	Buna N hose - 3/4" X 12' with static wire and 3/4" ferrules
<b>5200F1839</b>	Telescoping steel suction pipe - 1"NPT threads - Extends 22" to 40"
<b>700F3136</b>	Manual unleaded nozzle with 3/4" inlet
<b>700F3144</b>	Automatic unleaded nozzle with 3/4" inlet
<b>400F6634</b>	Wall mount bracket for this pump
<b>1200KTF7018</b>	Particulate Filter Kit - 700ACCF7016 cast iron 3/4" adapter with 700ACCF7013 filter for Model 1210B
<b>1200KTF7019</b>	Hydrosorb Filter Kit - 700ACCF7016 cast iron 3/4" adapter with 700ACCF7012 filter for Model 1210B
<b>1211KTF7021</b>	Particulate Filter Kit - 700ACCF7016 cast iron 3/4" adapter with 700ACCF7013 filter for Model 1210B
<b>1200KTF7022</b>	Hydrosorb Filter Kit - 700ACCF7016 cast iron 3/4" adapter with 700ACCF7012 filter for Model 1210B

## Performance

<b>Maximum outlet pressure</b>	12 PSI (1.10 BAR)
<b>Maximum flow rate (1)</b>	13 GPM (53 LPM)
<b>Maximum Recommended Viscosity of Pumped Fluid</b>	Diesel Fuel
<b>Maximum ambient operating temperature</b>	150 °F (66 °C)*
<b>Minimum ambient operating temperature</b>	-15 °F (-26 °C)*
<b>Minimum Dry Vacuum</b>	6 Inches of mercury
<b>Minimum Suction Lift**</b>	8 feet for diesel & see below for gasoline***

1) Nominal flow rate at nominal voltage using a standard hose and manual nozzle with low viscosity fluid.

\* Consult factory for extreme temperature applications outside this range.

\*\* The lift in feet is equivalent to the vertical distance from the surface of the fluid in the tank to the inlet of the pump plus the friction losses through the vertical and horizontal runs of pipe. All elbows and other fittings must be included in calculation of friction loss. The system should be designed to require a minimum amount of suction lift.

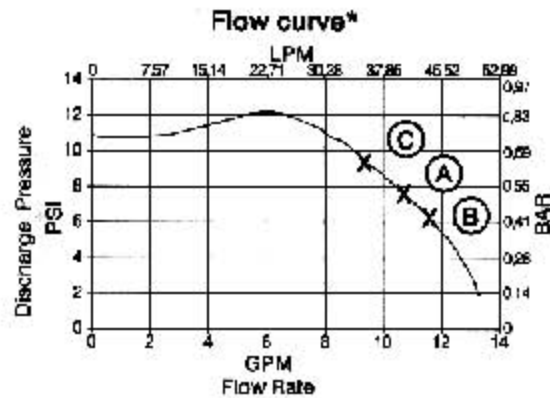
\*\*\* Lift of gasoline dependent on Reid's vapor pressure of the gasoline and its temperature. The lower the vapor pressure and temperature, the higher the possible lift. Refer to the attached Practical Gasoline Suction Lift Considerations to determine the gasoline lift you can expect.

## Flow Curve

**A** - 1205B with 807C Meter (no nozzle or hose).

**B** - 1210B with 12' of 3/4" hose and manual nozzle.

**C** - 1211B with 12' of 3/4" hose and manual nozzle.



\* Nominal flow curves for reference only. Based on 3 feet of suction lift. Actual flow rate may vary.

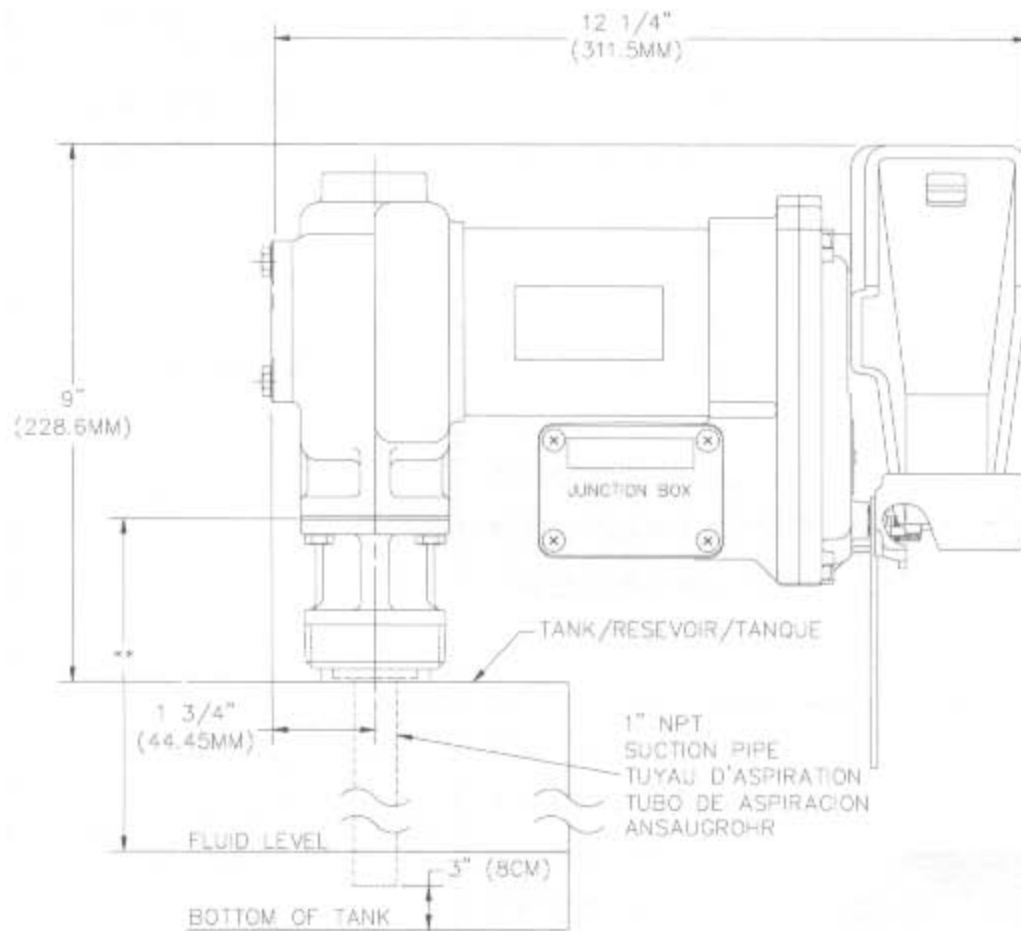
## Fluid Compatibility

The FR 1200 Series Pumps are compatible with the following fluids: Diesel, Gasoline, Kerosene, Mineral Heptane and Hexane.

The FR 1200 Series Pumps are NOT compatible with the following fluids: Acetone, Ammonia, Benzene, E Hydrochloric Acid, Water, Ink and Toluene.

If in doubt about the compatibility of a specific fluid, contact the supplier of the fluid to check for any adverse to the wetted materials.

## Dimensions



External threads in bung adapter are designed to fit the standard 2" NPT bung found on most barrels and tanks.

## Repair

To maintain UL listing, motors that need repair should be taken to an authorized repair shop or returned to for service. Pumps must be thoroughly flushed and drained before being taken in for service.

## Maintenance

To keep the pump running at its best, periodically perform the following procedures:

1. Remove and clean the strainer screen after every 20 hours of operation. The Cleaning frequency depend: cleanliness of the fluid being pumped.
2. Thoroughly flush pumps to be stored for any extended periods of time with diesel fuel or kerosene.

**See the Owner's Operation & Safety Manual for recommended maintenance procedures.**

## Frequently Asked Questions

### 1. My pump only pumps for a few minutes and then stops. What is happening?

Generally "short cycling" indicates the motor is drawing too much current from the power source for some time the thermal relay is opening to protect the insulation from the resulting heat build up. If this is what is happening the thermal relay will need to be reset by turning the pump off and back on again after the pump cools and then it will again operate. The causes of high current are many. The pump is designed for low viscosity fluid, like diesel or gasoline, and will overheat if used to pump oil or other higher viscosity fluids. The inlet filter screen could be clogged. Bearings could be defective resulting in a drag on the armature shaft rotation.

See the Troubleshooting Guide in your Owner's Manual packed with your unit or the copy available in the section of the website for things to check.

### 2. There is fluid leaking out of the small hole in the bottom of the pump body. How do I stop it?

This small hole is the "weep hole" and is positioned to drain fluid that has leaked past the dynamic seal between the pump and the motor. It is important that the leak be corrected as soon as possible to avoid damage to the motor bearing. The problem could be as simple as foreign materials preventing the ceramic and carbon seal components from being in intimate contact, to as complex as a defective o-ring or casting.

See the Troubleshooting Guide in your Owner's Manual packed with your unit or the copy available in the section of the website for things to check.

### 3. Why do I have to use the heavy wire supplied with the pump for connection to my battery?

Your pump is a commercial grade unit and as such draws a high current from your battery to do the work that current were routed through a light wire, heating and possible damage of the wire and reduced voltage to the pump would be the result. The wire supplied with your pump is sized to provide that optimum performance under the demand and the pump can provide, if properly installed.

It is also recommended a 30 amp fuse be installed in the power line to insure safety, should a short circuit occur in the pump wiring. Although the pump requires less than 20 amps in normal operation, motor starting current is significantly higher, necessitating the higher rating on the fuse.

### 4. Why are battery clips not provided with or on the wires, to connect to the battery?

It is not recommended that the electrical connections for this level of electrical current be made through the type normally found on battery chargers. This type of connection often results in electrical losses and the clips. This in turn could lead to arcing in the proximity of the battery where an explosive mixture of hydrogen gas is often present as a result of the normal charging and discharging of the battery.

It is recommended that the wires be crimped or firmly bolted to the battery terminals to avoid the risk noted above.

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