The Most Trusted name in Pumps & Meters FILL-RITE.

Series 600 AC Powered Pumps

Model FR610C Pump Shown

Description of Included Models

Model Number	Description	Shipping Weight
FR610C	**Heavy Duty AC Utility Pump** with 3/4" X 12' Hose & Nozzle, Telescoping Suction Pipe and 1/4 HP - 115 VAC/60 HZ Motor.	31 lbs
FR611C	**Heavy Duty AC Utility Pump** with 3/4" X 12' Hose & Nozzle, Telescoping Suction Pipe, 1/4 HP - 115 VAC/60 HZ Motor, and Model 807C1 Meter Installed.	39lbs

Safety Listings

Approval Mark	Organization Description	File Number	Guide Number
c UL us	**Underwriters Laboratories Inc**., a nationally recognized independent organization for testing of products to ensure public safety. Recognized and accepted in USA,Canada and other countries	MH7817	RCRX

Available Options

Option	Description	Change In Shipping Weight (lbs.)	Change In Shipping Weight (kgs.)
A	Upgrade to automatic nozzle from standard manual nozzle.	2.0	0.9
L	Unit equipped with meter registering liters in place of standard gallon meter.	-	-

Accessories

Part Number	Description
4200F9111	Nozzle Spout Hook (for automatic nozzles)
FRH07512	Buna-N hose 3/4" X 12' with static wire, 3/4" ferrules and spring gaurds
1200KTG9099	Telescoping steel suction pipe - 1"NPT threads - Extends 22" to 40"
NO75UMN11	Manual unleaded nozzle with 3/4" inlet
NO75UAU11	Automatic unleaded nozzle with 3/4" inlet
400F6634	Wall mount bracket for this pump
1200KTF7019	Hydrosorb Filter Kit - 1200KTG9075 cast iron 3/4" adapter with F180PM0 filter for Model FR7610
1200KTF7018	Particulate Filter Kit - 700ACCF7017 cast iron 1" adapter with 700ACCF7014 filter for Model FR4210
F180PC1	Clear Bowl, 10 micron prticulate filter w/ drain valve
F1810PM1	Metal canister 10 Micron particulate filter w/ drain valve. Fits 1200KTG9075 filter head

Performance

Maximum outlet pressure	12 PSI (0.83 BAR)
Maximum flow rate (1)	15 GPM (53 LPM)
Maximum Recommended Viscosity of Pumped Fluid	Diesel Fuel
Maximum ambient operating temperature	150 °F (66 °C)*
Minimum ambient operating temperature	-15 °F (-26 °C)*
Minimum Dry Vacuum	6 Inches of Hg.
Minimum Suction Lift**	7 feet for gasoline*** & 8 feet for Diesel fuel.

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. The system should be designed to require a minimum amount of suction lift.

Flow Curve

A. FR600 with 3/4" X 12' hose and manual nozzle.

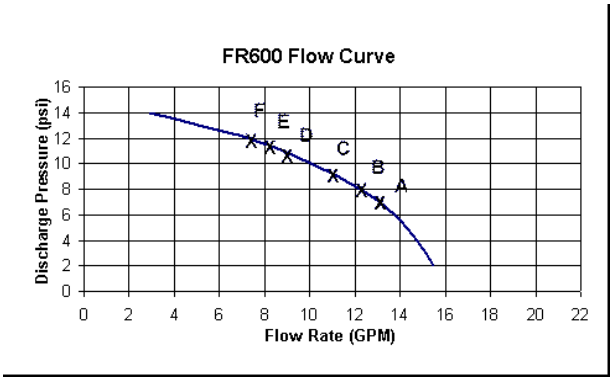
B. FR600 with 3/4"X 12' hose, manual nozzle and 800 meter.

C. FR600 with 3/4" X 12' hose, manual nozzle, 800 meter and 10 micron filter

D. FR600 with 3/4" X 12' hose and OPW 11-A automaic nozzle.

E. FR600 with 3/4" X 12' hose, OPW 11-A automaic nozzle and 800 meter.

F. FR600 with 3/4" X 12' hose, OPW 11-A automaic nozzle, 800 meter and 10 micron filter.



Nominal flow curve for Based on 3 feet suction lift. Actual flow rates obtained may vary.

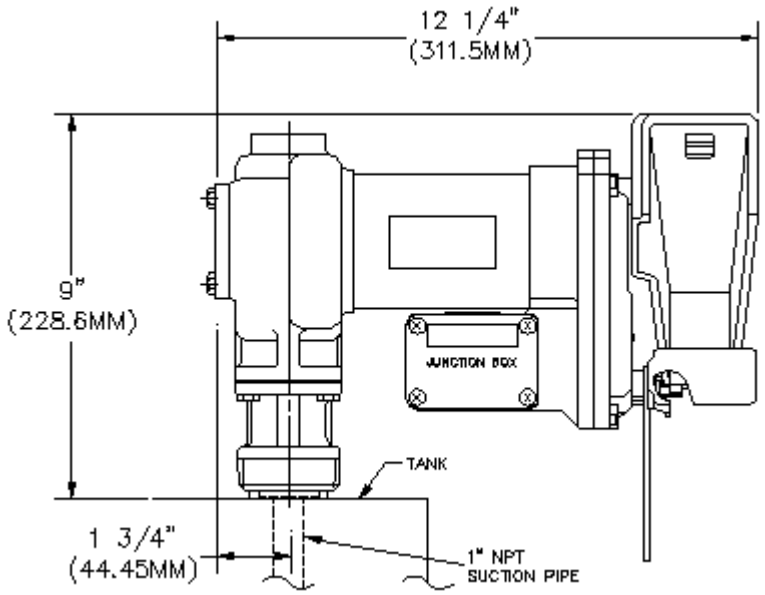
Fluid Compatibility

The FR600 Series pumps are compatible with the following fluids:
Diesel, Gasoline, Kerosene, Mineral Spirits, Heptane and Hexane.
The FR600 Series pumps are NOT compatible with the following fluids: Acetone, Ammonia, Benzene Bleach, Hydrochloric Acid, Water, Ink, Toluene, Aviation Gas and Jet Fuel..

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

Cast Iron	**Steel**	**Stainless Steel**
Bronze/Iron	**Carbon**	**Polyester**
Aluminum	**Cork/Buna N**	**Buna N**
Ceramic	**Fiber**	**Zinc Plated Steel**
Acetal	**Fluorocarbon**	**Teflon**
Ryton (FR611 Only)		

Dimensions



Repair

Refer to Owner's Operation & Safety Manual shipped with the pump and available for reference and printing in the eLibrary

To maintain UL listing, motors that need repair should be taken to an authorized repair shop. 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. Check strainer for dirt accumulation. To clean strainer, remove inlet flange and pull out screen.
2. Remove rotor cover and inspect vanes. Vanes should be replaced after excessive wear to prevent damage to pump. If more than 1/2 the total blade length extends out of the rotor slot at the extreme of travel, the wear is excessive.
3. Check hose and nozzle for wear or damage. Bad hoses or nozzles are potential safety hazards.

For FR611 see meter's Owner's Operation & Safety Manual for additional 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 reason, and 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 reset after 10 to 20 minutes and the motor 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 motor shaft.

See the Troubleshooting Guide in your Owner's Manual shipped with your unit or the copy available in the eLibrary.

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

This small hole is described as 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. A new shaft seal will need to be installed.

See the Troubleshooting Guide in your Owner's Manual shipped with your unit or the copy available in the eLibrary.

3. What can I do to avoid my pump from losing prime when it sits for a time?

Maintaining "prime" or keeping fluid in the inlet piping of your pumping system requires that no air leak into that piping. Do not open the nozzle while pump is off. If your pump is consistently losing prime, check all joints and fittings paying particular attention to the suction tube to pump connection, and the various covers and caps in the pump itself. Teflon® type sealing tape or a sealing compound noted as resistant to fuels is recommended at all threaded pipe connections.

4. When it gets hot outside my pump will not pump gasoline but my diesel pump works great, wha is going on?

A suction pump works by developing a vacuum above the fluid being pumped and depending on atmospheric pressure to force the fluid into that vacuum. The higher the fluid is being raised, the more vacuum is required. If the fluid turns to a gas at a lower vacuum than that required to raise the fluid out of the container, the system is said to be vapor locked. In other words, rather than enough vacuum being developed by the pump to raise the fluid, the pump is instead vaporizing the gasoline and only gas vapor i being pumped. Diesel has a very low vapor pressure at even relatively high temperatures so there is no danger of vapor locking at practical temperatures. Gasoline is blended to have different vapor pressures t aid in winter starting (high vapor pressure) or avoid vapor locking in the summer (lower vapor pressure). The unit of measure used in the industry for this characteristic is Reid Vapor Pressure. Having winter gas (high Reid Vapor Pressure), still available in your tank in a warm spring, is a common cause of vapor locking pumps.

Once the situation exists, there are a limited number of options. Decrease the "lift" needed to raise the gasoline by filling the tank to the top is the easiest and quickest. This has the added benefit of mixing in a new blend of gasoline with a lower vapor pressure which will average the blended Reid Vapor Pressure down. Another option is to decrease the temperature by shading and/or cooling the piping and pump in some fashion. In an emergency spraying water on the piping could drop the system temperature sufficiently to allow gasoline to be pumped. **Use extreme caution when spraying water around electrical connections and components to avoid the shock hazard.**