



Universal Pump

INSTALLATION INSTRUCTIONS



It is the installer's responsibility to read, understand, and comply with these instructions.

A Guide to Your Universal Pump

Available in $\frac{3}{4}$ hp/115V, $1\frac{1}{4}$ hp/115V, $1\frac{1}{4}$ hp/230V, and 2.0 hp/230V models, construction consists of 304 stainless steel housings, dual mechanical seals, thermal protection, stainless steel diffuser and impellers, external starting capacitor and a 45 foot power cord. The pump is particularly quiet and durable from its solid construction. The water end is installed under the motor which keeps the motor cooled with the pumped water. The stainless steel impellers and diffusers offer high abrasion resistance while the Italian double mechanical seals ensure long life and enhanced reliability. The oil chamber is filled with non-toxic cooling oil. Ball bearings are self-lubricating and internal cast iron components are electro-coated with polybutadiene varnish to prevent corrosion which is sometimes associated with the typical lower pH of rainwater. Installation may be oriented either vertical or horizontal so long as water is available at the intake to prevent a run-dry condition.

PERFORMANCE SPECIFICATIONS

	RF075-115V	RF125-115V	RF125-230V	RF200-230V
Horsepower	$\frac{3}{4}$	$1\frac{1}{4}$		2.0
Nominal voltage range	115V, 60Hz, 8.6A max.	115V, 60Hz, 14A max.	230V, 60Hz, 9A max.	230V, 60Hz, 9A max.
P1kW	1.0	1.24		2.3
P2kW	0.6	0.95		1.6
Impeller stages	2	3		5
Maximum flow	29 GPM	34 GPM		36 GPM
GPM at 50 PSI (0 Head)	See curve	17 GPM		29 GPM
GPM at 40 PSI (0 Head)	8 GPM	22 GPM		31 GPM
Maximum head	105' TDH	180' TDH		310' TDH

	RF075-115V	RF125-115V	RF125-230V	RF200-230V
System pressure	up to 46 PSI	up to 78 PSI		up to 135 PSI
Inlet/outlet size	1¼" FPT	1¼" FPT		1¼" FPT
Weight	36 lbs.	41 lbs.		46 lbs.
Dimensions	7" x 7" x 20" (incl. base)	7" x 7" x 22" (incl. base)		7" x 7" x 24" (incl. base)
Thermal protection	yes			
Motor	2-pole induction, continuous duty			
RPM	3450	3450		3450
Cooling	Water cooled/intake			
Insulation class	F			
Protection	IP68			
Certifications	CE			
Warranty	1 year			

INSTALLATION

Mounting Location

The pump may be mounted vertically or horizontally and may be fully or partially submersed or mounted externally on the ground or other sturdy platform. When mounted externally, the pump must be safely and securely mounted in a manner which prevents exposure to electrical connections and in a location which prevents damage and exposure to freezing temperatures.

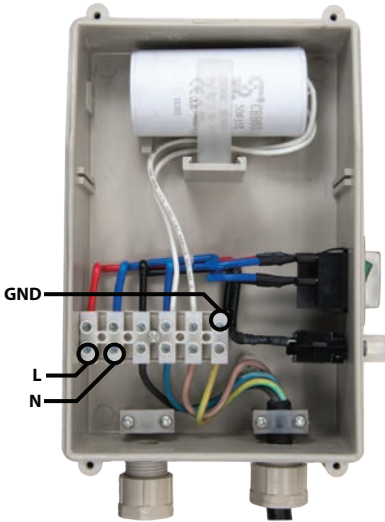
Environmental Considerations

If the pump may be exposed to freezing temperatures, the pump must be fully drained and protected with a food-grade antifreeze. The pump start box offers water resistance but should be mounted in a location away from direct exposure to rain, humidity, snow, excessive heat and direct sunlight.

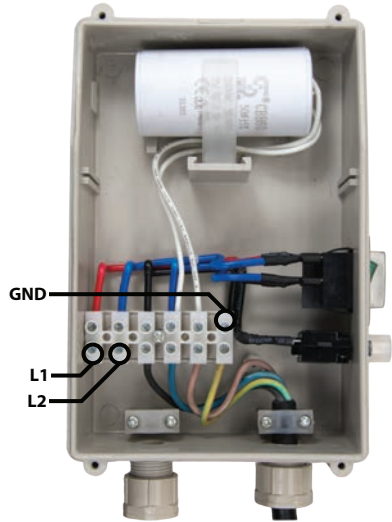
Pump to Start Box Wiring

All electrical connections should be made by a licensed professional. The pump ships pre-wired to the pump start box as shown below. Excess wire between the pump and pump start box can be removed so long as the wires are re-connected properly.

115V Pump Start Box Wiring



230V Pump Start Box Wiring

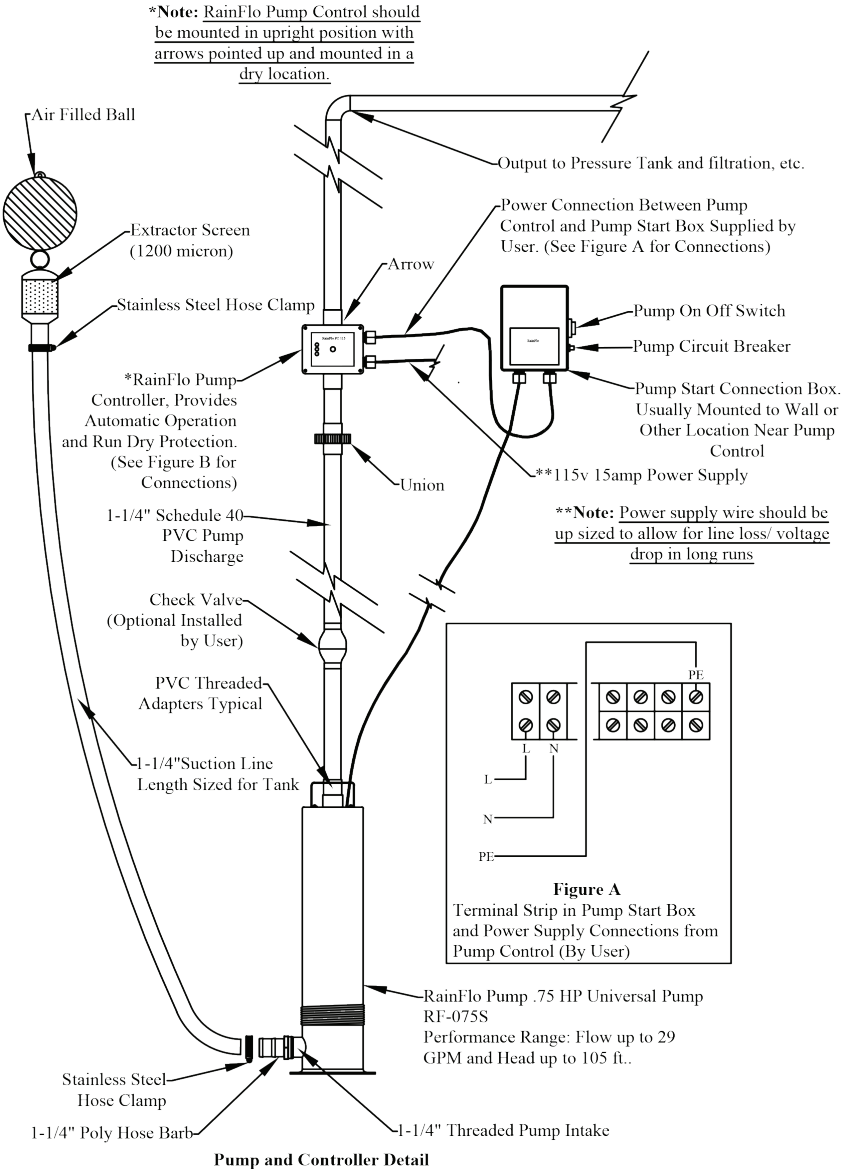


Pump Start Box to Pump Controller Wiring

The pump start box serves as housing for the start capacitor and on/off control for maintenance and is not intended for regular pump starting and stopping operation. For regular pump control and run-dry protection, an intelligent pump control such as the RainFlo Pump Control or a pressure switch assembly should be used. The pump controller is wired between the main electrical power source and the GND/N/L(115V) or GND/L1/L2(230V) terminals inside the pump start box. Follow the wiring instructions for your particular pump control device. When wiring is complete, the plastic watertight fittings on each end of the pump start box should be hand-tightened and the cover re-secured. Do not over-tighten the fittings or they can possibly break.

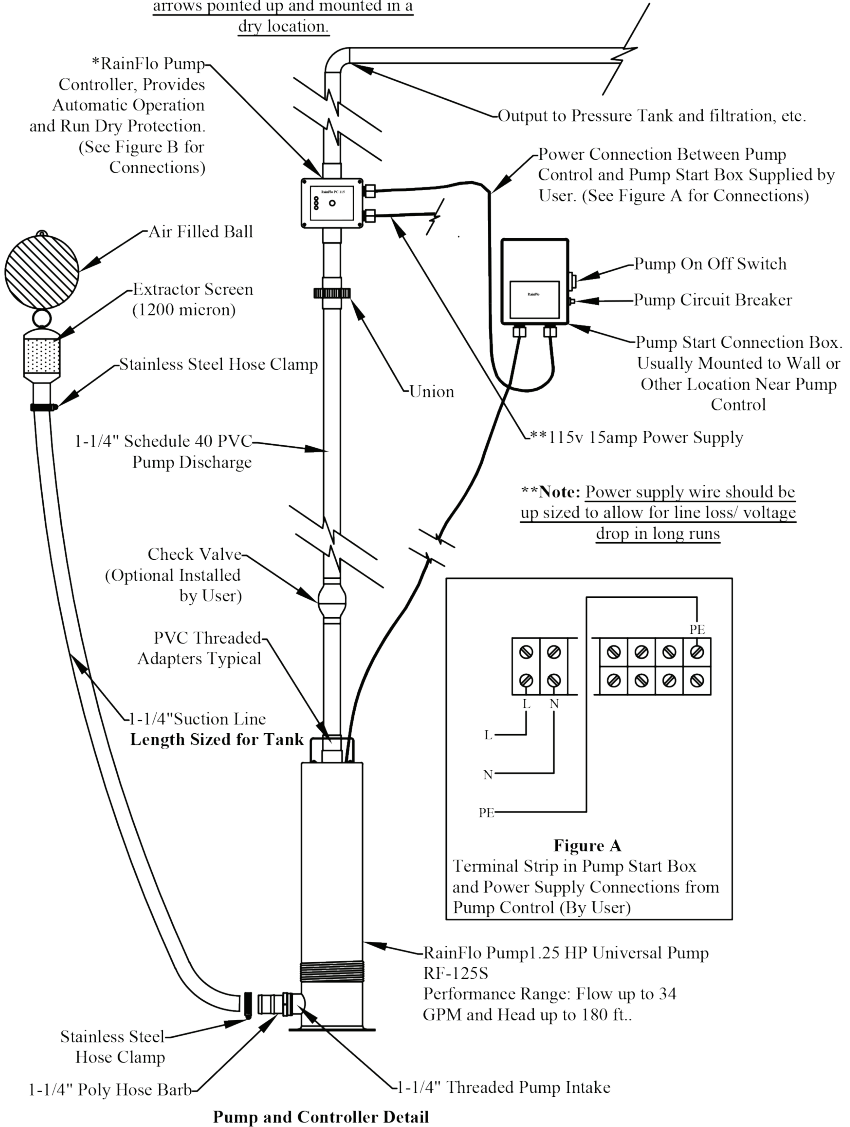
SCHEMATIC DIAGRAMS

RainFlo 3/4 HP Pump 115V and Controller Detail



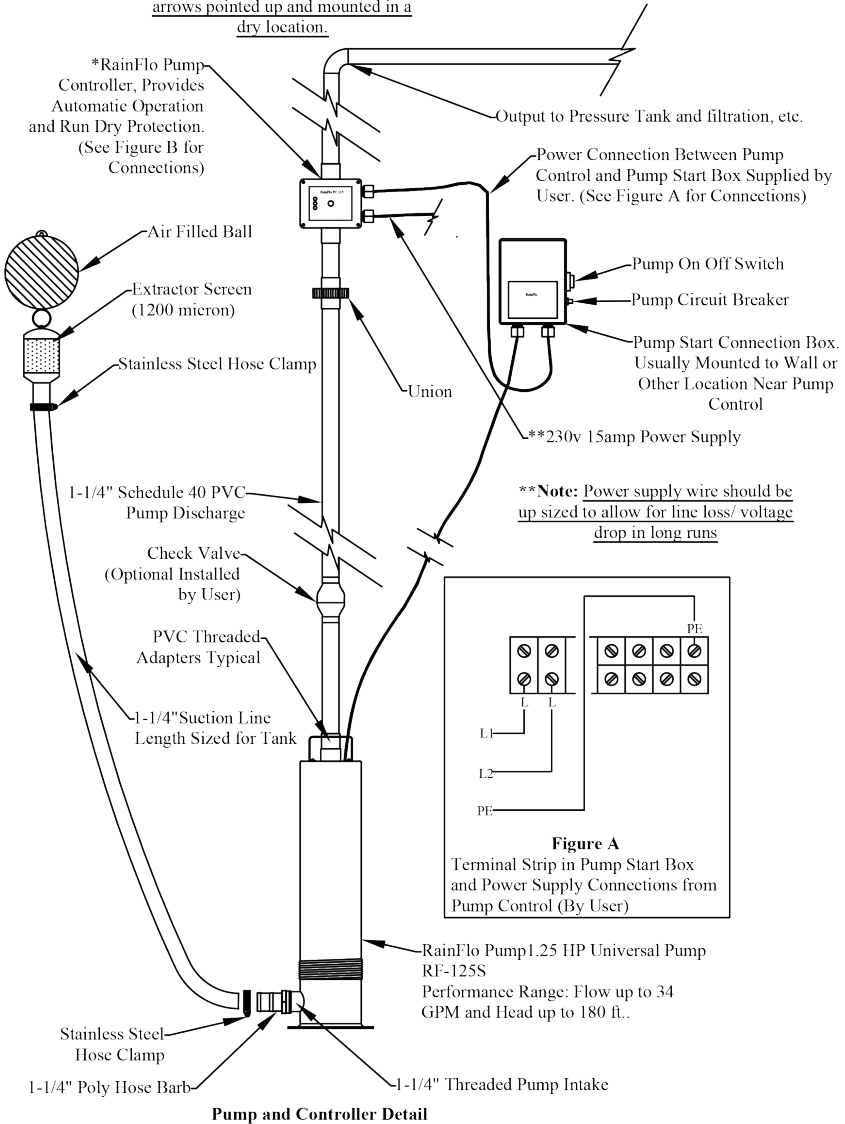
RainFlo 1 1/4 HP Pump 115V and Controller Detail

*Note: RainFlo Pump Control should be mounted in upright position with arrows pointed up and mounted in a dry location.



RainFlo 1 1/4 HP Pump 230V and Controller Detail

*Note: RainFlo Pump Control should be mounted in upright position with arrows pointed up and mounted in a dry location.



RainFlo 2 HP Pump 230V and Controller Detail

***Note:** RainFlo Pump Control should be mounted in upright position with arrows pointed up and mounted in a dry location.

