



INSTALLATION INSTRUCTIONS

2190 Blvd. Dagenais West

LAVAL (QUEBEC)

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MODELS

503132S 503332

503232S 503732

SHALLOW WELL &

CONVERTIBLE
JET PUMPS

Your pump has been carefully packaged at the factory to prevent damage during shipping. However, occasional damage may occur due to rough handling. **Carefully inspect your pump** for damages that could cause failures. Report any damage to your <u>carrier or your point of purchase</u>.

Please read these instructions carefully. **Failure** to comply to instructions and **designed** operation of this system, may **void** the warranty.



Safety Instructions:

This fine pump that you have just purchased is designed from the latest in material and workmanship. Before installation and operation, we recommend the following procedures:

- CHECK WITH YOUR LOCAL ELECTRICAL AND PLUMBING CODES TO ENSURE YOU COMPLY WITH THE REGULATIONS. THESE CODES HAVE BEEN DESIGNED WITH YOUR SAFETY IN MIND. BE SURE YOU COMPLY WITH THEM.
- WE RECOMMEND THAT A SEPARATE CIRCUIT BE LEAD FROM THE HOME ELECTRICAL DISTRIBUTION PANEL PROPERLY PROTECTED WITH A FUSE OR A CIRCUIT BREAKER. WE ALSO RECOMMEND THAT A GROUND FAULT CIRCUIT BE USED. CONSULT A LICENSED ELECTRICIAN FOR ALL WIRING.
- THE GROUND TERMINAL ON THE THREE PRONG PLUGS SHOULD NEVER BE REMOVED. THEY ARE SUPPLIED AND DESIGNED FOR YOUR PROTECTION.
- NEVER MAKE ADJUSTMENTS TO ANY ELECTRICAL APPLIANCE OR PRODUCT WITH THE POWER CONNECTED. DO NOT ONLY UNSCREW THE FUSE OR TRIP THE BREAKER, REMOVE THE POWER PLUG FROM THE RECEPTACLE.

Monthly Mandatory check-up:

- 1. Inspect the pump for any obvious condition that necessitates cleaning, correction, adjustement or repair.
- 2. Clear the surrounding of any paper, leaves or other debris.
- 3. Assure that the pump is secure for proper operation.
- 4. Assure that there is adequate clearance from any combustible materials or stucture. Stored materials must be kept away from
- the pump. Shelves or cabinet structures must not be in close proximity over the pump.
- 5. Assure that the motor is securely plugged into a proper GFCI electrical outlet
- 6. Test the GFCI outlet by pressing its test switch. This should prove that the outlet is energized and will trip off to protect against a ground fault. Be sure to reset the GFCI by pressing its reset switch.
- 7. Observe that the plumbing can carry the water safely into the residence.

Material required for drilled well application (indoor use only)

Shallow well pump installation

- ☐ Desired length of polyethylene 1" pipe, 100 PSI, CSA or UL approved, to link up from pumping level to pump.
- □ 1 1" foot valve (750756 or 750752P).
- ☐ 1 well seal, as per well casing diameter (750929 6" x 1").
- ☐ 1 1" well seal elbow (750860).
- □ 1 1" male adaptor (750865 or 750871) and 1 11/4" to 1" male adaptor (150181).
- □ 8 1" stainless steel clamps (750885).
- □ Teflon tape.

Deep well pump installation

- ☐ Desired length of polyethylene 1" and 11/4" pipe, 100 PSI, CSA or UL approved, to link up from pumping level to pump.
- □ 1 11/4" foot valve (750757 or 750753P).
- ☐ 1 well seal, as per well casing diameter (750926 6" x 11/4" x 1").
- ☐ 1 1" well seal elbow (750860).
- □ 1 1¼" well seal elbow (750861).
- □ 1 1¼" venturi adaptor (750864).
- □ 2 1" male adaptors (750865 or 750871) and 1 1¼" male adaptor (750866 or 750872).
- □ 8 1" stainless steel clamps (750885).
- 8 1¼" stainless steel clamps (750886).
- ☐ Teflon tape.

Tools

Screwdrivers, hacksaw to cut pipe, knife to assist in pipe cutting, round file to smooth pipe ends, pipe wrench, adjustable wrench to tighten fittings, propane torch and welding material.

APPLICATION

(503132S and 503232S)

- This pump is designed for shallow well installation for water levels no deeper than 25 feet.
- CAPACITY:

	<u>1/2 HP</u>	<u>3/4HP</u>	
5'	815	865	US GPH
10'	715	755	US GPH
15'	630	665	US GPH
20'	550	575	US GPH
25'	500	530	US GPH

FRICTION LOSS IN PIPE NOT INCLUDED

FEATURES

- Easy to prime pump body.
- Totally enclosed, fan cooled motor, bearing to bearing. Built for a continuous use.
- Full time connected run capacitor, to eliminate starting wear vs regular motor.
- Thermal and overload protection.
- Noryl impeller, built-in injector
- 1/2 HP, 115 / 230 VAC, 60 Hz, 8.6 A / 4.3 A (at start:15 A / 7.5 A).
- 3/4 HP, 115 / 230 VAC, 60 Hz, 8.8 A / 4.4 A. (at start:15 A / 7.5 A).

INSTALLATION STEPS

STEP 1

We recommend that you install your pump in a clean and dry location where there is adequate room for servicing at a later date. Protection from freezing temperatures and good ventilation should be considered as well, to provide the pump an environment for long life. Locating the pump as close as possible to the water source will reduce friction losses encountered in the suction pipe.

Friction losses in the suction pipe must be taken into consideration when the horizontal offset is greater than 50 feet. The suction pipes should be increased from 1" to 1 1/4". This will reduce friction losses and allow the pump to give maximum performance.

A new well should be checked to determine that it is free from sand. Sand will damage the seal and the impeller. Have your well driller clean the well before your installation.

Never run the pump dry. Damage to the seal may occur. Fill pump body and suction pipe with water before turning on the power.

VERY IMPORTANT

Please be advised that the Fluomac Electronic unit is a state of the art product and will give you years of trouble free service. However, if the unit cycles "ON and OFF", this means there is a leakage in your plumbing. For example: A toilet leak, the leakage must be repaired to maintain the system pressure.

Furthermore, if you are pumping water from a sand point or if you have indication that your well may contain sand, a sand filter must be installed in the suction of the pump.

Sand will damage the unit, due to its abrasive nature and will void warranty. For more information, we are enclosing a brochure on our Sand Filter model # 750896, which is available from any Burke Retailers or Wholesalers. In the meanwhile, if you have any questions concerning your pump, please contact us on our toll free number 1-800-361-1820 before returning the pump to the point of purchase.

The above conditions are not on warranties. The warranty covers manufacturing defects only.

THE RUN OF HORIZONTAL PIPE FROM THE TOP OF YOUR WELL INTO THE HOUSE, WHERE YOUR PUMP WILL BE LOCATED, MUST BE INSTALLED IN A TRENCH, BELOW THE FROST LEVEL OF YOUR AREA.

SEE DIAGRAM ON PAGE 5

STEP 2

Cut the desired length of poly pipe to run from the top of the well to the pumping level. Smooth the pipe cuttings with your round file. (Check that no cut-out parts are left inside of pipe. This may block pump injector or impeller). Tape male adaptor threads with teflon tape and thread adaptor into the foot valve. Slide 2 stainless steel clamps over one end of pipe and use torch to soften pipe. Insert the male adaptor and foot valve into this pipe end. Tighten clamps with screwdriver when cool. For security against leaks, we suggest to install 2 stainless steel clamps on each adaptor.

STEP 3

Insert the well seal elbow through the opening of the seal.

Slide 2 stainless steel clamps over the free end of the previously cut pipe and soften pipe with your torch. Attach pipe to the well seal elbow (end protruding at bottom of well seal). Tighten clamps with screwdriver when cool.

STEP 4

Install the well seal and piping assembly into your well casing. Tight down the well seal bolts using your adjustable wrench.

To facilitate servicing at a later date, you may use a pitless adaptor and a sealed well cap instead of an elbow and a well seal as describe in steps 3 and 4.

STEP 5

Install your pump in the house, on a sound foundation, as close as possible to the basement wall. Locate the suction inlet in the front of the pump. Thread an adaptor into inlet using teflon tape. Do not over tighten.

STEP 6

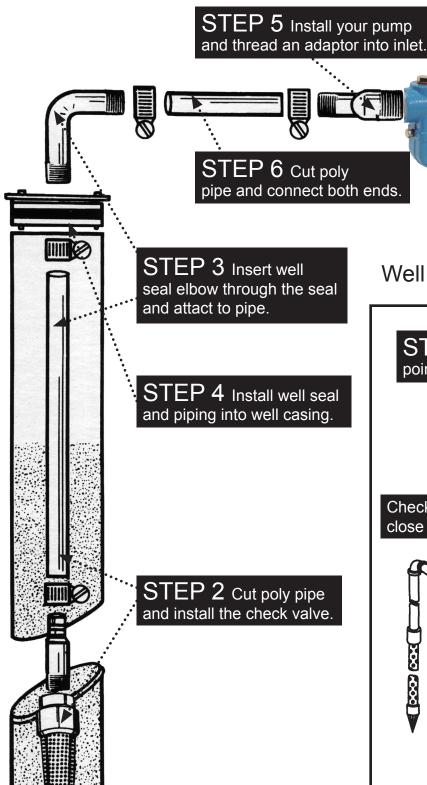
Cut the desired length of pipe from pump location to the well seal and connect both ends using the previous way, with stainless steel clamps and torch. Before connecting your pipe to the pump, fill the succion line with water. **Do not fill in your trench to the house until you have checked for any leaks in your connections or trouble in your water system.**

STEP 7 for sand or well points

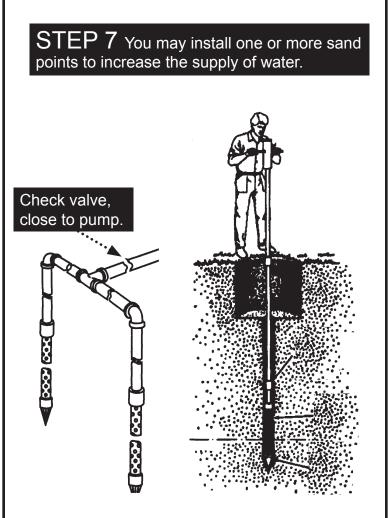
Sand or well points are limited to areas where water bearing sand or gravel lies below the surface, and where there are no boulders or rocks to interfere with the driving into the ground of the point.

The amount of water any "one" well point will supply is usually rather limited. Sometimes, it is necessary to use more than one point to increase the supply of water, entering to the pump's suction.

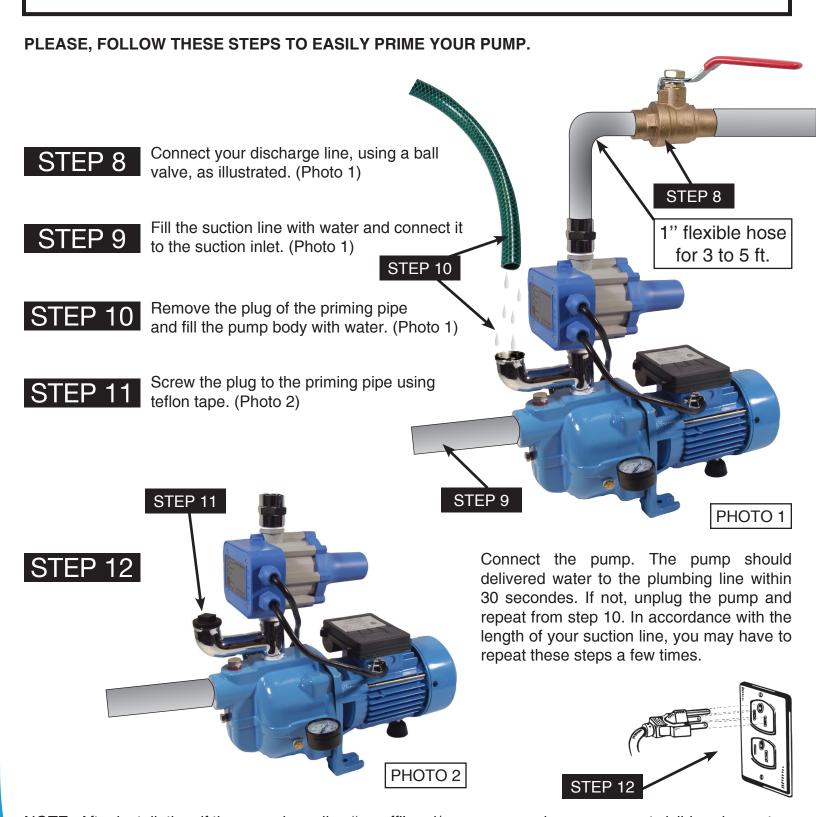
THE IMPORTANT INSTALLATION STEP IN USING WELL POINTS IS THAT A CHECK VALVE MUST BE USED IN THE SUCTION PIPE LEADING TO THE SUCTION INLET, AS CLOSE TO THE PUMP AS POSSIBLE, TO KEEP SUCTION LINE AND PUMP WELL PRIMED.



Well point optional installation



PRIMING INSTRUCTIONS



NOTE: After installation, if the pump is cycling "on-off" and/or comes on when you are not visibly using water, the pump is not defective. It means you have a leak on the discharge side of the pump. The leak must be localised and needs to be repaired. If you need assistance to determine same, please call 1 800-361-1820. The pump is warrantied by the manufacturer and you must call us to determine procedures. The pump can not be returned to the point of purchase without our prior consent.

BOOSTER PUMP APPLICATION

NEVER RUN THE PUMP DRY

To use this pump for pressure boosting, read carefully the instructions for shallow well application, then connect the pump to your water supply as per the pictures on right.

STEP 2 Use appropriate union (not shown) to connect pipes for an easy service at a later date.

If your incoming pressure is higher than 20 PSI, install a pressure reducer (not shown) between the ball valve #1 and the pump, setted to 20 PSI. This will prevent an excess of pressure on the house distribution piping.

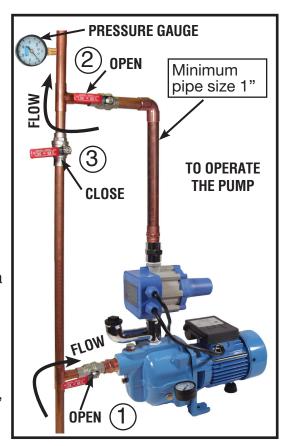
STEP 4 Install a pressure gauge as per the pictures on the right, to monitor the pressure in piping.

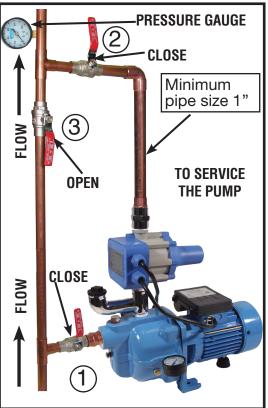
STEP 5 Set the ball valves as per "to operate the pump" picture. Open the nearest faucet and connect the pump to an electrical outlet.

When all the air will be remove from the piping, close the faucet. The pump will stop after 7 to 10 seconds. Then, it will turn on when a faucet is open.

WARNING

In a booster pump application the incoming pressure must never be higher than 20 to 25 PSI.





Important notice:

For the models 503332 and 503732, the priming instructions and the booster pump application are identical to the models 503132S and 503232S.

Refer to pages 7 and 8.

Your ejector is factory pre-assembled with the venturi 510066.2, for an optimum performance when the pumping level is between 25' to 60' (7.5 meters to 18 meters) depth, in reference to the pump position. So, this is a deep well application mode. The ejector is positioned into the well and is connected to the pump using 2 pipes (see page 13).

If the pumping level is deeper than 60' (18 meters) in reference to the pump position, it is mandatory to unscrew the pre-assembled venturi and to replace it by the venturi 510066.3, also as a deep well mode application with the ejector positioned into the well.

Factory pre-assembled, for deep well application For deep well mode, 25' à 60' application mode, For shallow 60' and deeper. well application mode. 510066.3 510066.1 31/64"

FLOW CONTROL

VALVE

In the case of a pumping level lower than 25' (7.5) meters), unscrew the pre-assembled venturi and replace it by the venturi 510066.1. Then screw the ejector to the pump body. This becomes a shallow well mode application where only one pipe is required to pump water (see page 11).

VALVE

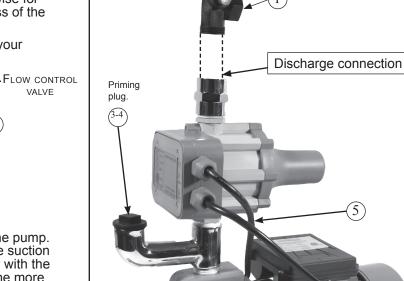
Use the included flow control valve to connect your pump to your home plumbing distribution pipe system. Install this valve to the pump discharge and close the valve completely by turning the top screw clockwise. Then, turn the screw counter-clockwise for one turn only and proceed to the following priming process of the pump.

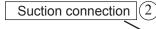
Follow all these inside step by step instructions to install your pump. Use teflon tape on all threads. (1) Install the pump

discharge fittings as illustrated. (2) Fill the suction line with water and connect it to the suction inlet. (3) Remove the priming plug and fill the pump body with water. (4) Screw the plug to the priming inlet.

(5) Connect the pump to the receptacle. The pump should deliver water to the plumbing line within 30 seconds. If not, unplug the pump and repeat the process at step 3.

After priming the pump, you can adjust the flow control valve to obtain the best performance of the pump. Remember that when you open this valve, you reduce the suction capacity. This valve is used to balance the discharge flow with the suction requirement. The deeper your suction distance, the more closed the valve should be for optimum performance.





APPLICATIONS

(503332 and 503732)

- This pump is designed for shallow well installation for water level up to 25 feet, with injector screwed on pump body; or for deep well installation for water level up to 85 feet, with 2 pipes and injector down in the well.
- CAPACITY AT 20 PSI.

	SHALLC		DEEP WELL		
	1/2 HP	3/4 HP		1/2 HP	3/4 HP
5'	900	950			
10'	800	850	30'	500	525
15'	650	700	40'	400	425
20'	450	500	50'	300	325
25'	300	350	80'	150	175
US GPH				US	GPH

FEATURES

- High performance noryl impeller...
- Industrial motor totally enclosed, fan cooled.
- Full time connected run capacitor, to eliminate starting wear vs regular motor.
- Thermal and overload protection.
- Built for a continuous use.
- 1/2 HP, 115/230 VCA, 60 Hz, 8.6 A/4.3 A.
- 3/4 HP, 115/230 VCA, 60 Hz, 8.8 A/4.4 A.

(at start: 15 A/7.5 A)

FRICTION LOSS IN PIPE NOT INCLUDED.

INSTALLATION STEPS

STEP 1

We recommend that you install your pump in a clean and dry location where there is adequate room for servicing at a later date. Protection from freezing temperatures and good ventilation should be considered as well, to provide the pump an environment for long life. Locating the pump as close as possible to the water source will reduce friction losses encountered in the suction pipe.

Friction losses in the suction pipe must be taken into consideration when the horizontal offset is greater than 50 feet. The suction pipes should be increased from 1" to 11/4". This will reduce friction losses and allow the pump to give maximum performance.

A new well should be checked to determine that it is free from sand. Sand will damage the seal and the impeller. Have your well driller clean the well before your installation.

Never run the pump dry. Damage to the seal may occur. Fill pump body and suction pipe with water before turning on the power.

VERY IMPORTANT

Please be advised that the Fluomac Electronic unit is a state of the art product and will give you years of trouble free service. However, if the unit cycles "ON and OFF", this means there is a leakage in your plumbing. For example: A toilet leak, the leakage must be repaired to maintain the system pressure.

Furthermore, if you are pumping water from a sand point or if you have indication that your well may contain sand, a sand filter must be installed in the suction of the pump.

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SEE DIAGRAM ON PAGE 11

STEP 2

Cut the desired length of poly pipe to run from the top of the well to the pumping level. Smooth the pipe cuttings with your round file. (Check that no cut-out parts are left inside of the pipe. This may block pump injector or impeller). Tape male adaptor threads with teflon tape and thread adaptor into the foot valve. Slide 2 stainless steel clamps over one end of the pipe and use torch to soften pipe. Insert the male adaptor and foot valve into this pipe end. Tighten clamps with screwdriver when cool. For security against leaks, we suggest to install 2 stainless steel clamps on each adaptor.

STEP 3

Insert the well seal elbow through the opening of the seal.

Slide 2 stainless steel clamps over the free end of the previously cut pipe and soften pipe with your torch. Attach pipe to the well seal elbow (end protruding at bottom of well seal). Tighten clamps with screwdriver when cool.

STEP 4

Install the well seal and piping assembly into your well casing. Tight down the well seal bolts using your adjustable wrench.

To facilitate servicing at a later date, you may use a pitless adaptor and a sealed well cap instead of an elbow and a well seal as describe in steps 3 and 4.

STEP 5

Install your pump in the house, on a sound foundation, as close as possible to the basement wall. Locate the suction inlet in the front of the injector. Thread an adaptor into inlet using teflon tape. Do not over tighten.

STEP 6

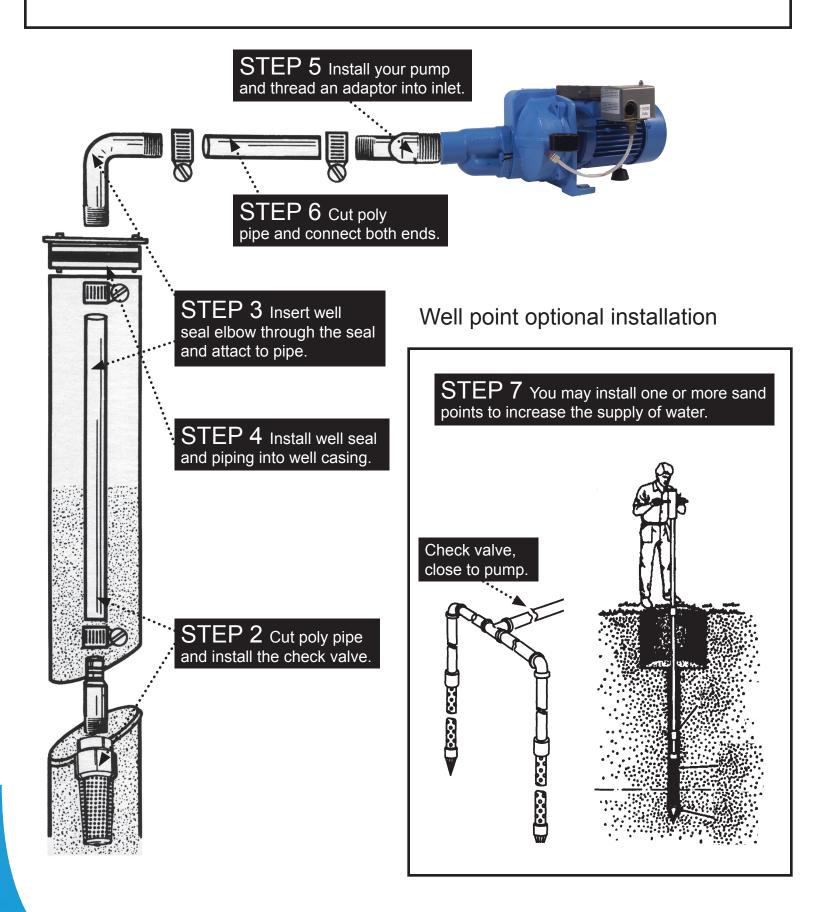
Cut the desired length of pipe from pump location to the well seal and connect both ends using the previous way, with stainless steel clamps and torch. Do not fill in your trench to the house until you have checked for any leaks in your connections or trouble in your water system.

STEP 7 for sand or well points

Sand or well points are limited to areas where water bearing sand or gravel lies below the surface, and where there are no boulders or rocks to interfere with the driving into the ground of the point.

The amount of water any "one" well point will supply is usually rather limited. Sometimes, it is necessary to use more than one point to increase the supply of water, entering to the pump's suction.

THE IMPORTANT INSTALLATION STEP IN USING WELL POINTS IS THAT A CHECK VALVE MUST BE USED IN THE SUCTION PIPE LEADING TO THE SUCTION INLET, AS CLOSE TO THE PUMP AS POSSIBLE, TO KEEP SUCTION LINE AND PUMP WELL PRIMED.



DEEP WELL APPLICATION

SEE DIAGRAM ON PAGE 13

STEP 2

Locate your injector body in your package. Using teflon tape, screw the 1¼" venturi adaptor over the injector venturi (black tube), into the 1¼" opening of injector body. Install the 1" male thread adaptor in the 1" opening in injector body. Securely tighten both adaptors with pipe wrench.

STEP 3

With teflon tape on threads, install a $1\frac{1}{4}$ " nipple into the $1\frac{1}{4}$ " foot valve, then screw this assembly into the $1\frac{1}{4}$ " bottom opening of the injector.

STEP 4

Cut the desired length of 1" and 1¼" poly pipes to run from the top of the well to the pumping level. Smooth the pipe cuttings with your round file. (Check that no cut-out parts are left inside of the pipe. This may block pump injector or impeller). Slide 2 stainless steel clamps over one end of each pipe and use torch to soften pipe. Fix the 1" and 1¼" pipes respectively on the 1" adaptor and 1¼" venturi adaptor. Tighten clamps with screwdriver when cool. For security against leaks, we suggest to install 2 stainless steel clamps on each adaptor.

STEP 5

Insert both well seal elbows through their opening of the seal. Slide 2 stainless steel clamps over the free ends of the previously cut pipes and soften pipes with your torch. Attach pipes to the well seal elbows (ends protruding at bottom of well seal). Tighten clamps with screwdriver when cool.

To facilitate servicing at a later date, you may use a pitless adaptor and a sealed well cap instead of an elbow and a well seal as describe in steps 3 and 4.

STEP 6

Install the well seal and the injector piping assembly into your well casing. Tight down the well seal bolts using your adjustable wrench.

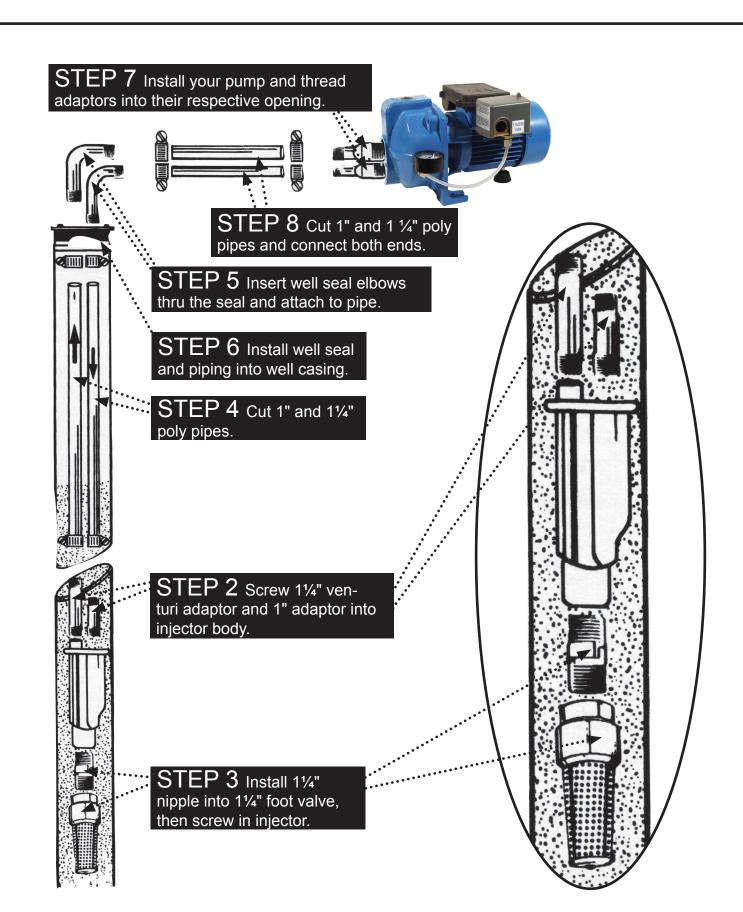
STEP 7

Install your pump in the house, on a sound foundation, as close as possible to the basement wall. Locate the openings in the front of the pump body. Thread respectively 1" and 11/4" adaptors into corresponding openings using teflon tape. Do not over tighten.

STEP 8

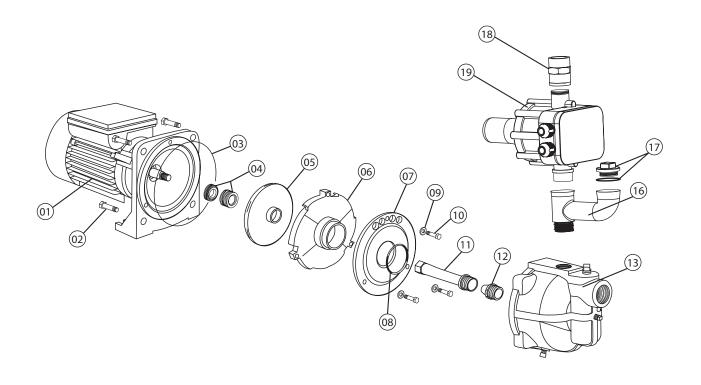
Cut the desired length of pipes from pump location to the well seal and connect both ends using the previous way, with stainless steel clamps and torch. Do not fill in your trench to the house until you have checked for any leaks in your connections or trouble in your water system.

DEEP WELL APPLICATION



REPAIR PARTS

Ref	f Parts Descriptions		Ref	Parts Descriptions	
1	510054	Motor 1/2 HP	11	510069	Venturi
1	510054-2	Motor 3/4 HP	12	510046	Nozzle
2	510055	Motor Screws (4)	13	510045	Pump Body
3	510053	Seal Plate O-Ring	14	750769	1/4" Pressure Gauge (not shown)
4	510052	Mecanical Seal	15	510077	Capacitor (not shown)
5	510048	Impeller	16	506375	SS Priming tube
6	510047	Diffuser	17	506377	Priming plug and washer
7	510065	Diffuser Plate	18	506376	Discharge fitting
8	510051	Diffuser Plate O-Ring	19	600600GP	Fluomac
9	510050	Diffuser Plate Washers (3)			
10	510049	Diffuser Plate Screws (3)			

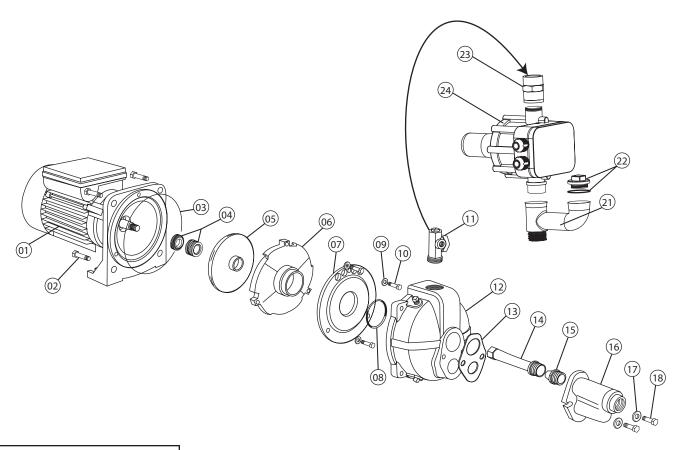


503132S / 503232S 2014

Repair parts may be ordered from your autorized point of sale or from BUR-CAM PUMPS

REPAIR PARTS

Ref	ef Parts Descriptions		Ref	Parts Descriptions	
1	510054	Motor 1/2HP	14.1	510066.1	Short Venturi
1	510054-2	Motor 3/4HP	14.2	510066.2	Long Venturi (25'-60')
2	510055	Motor Screws (4)	14.3	510066.3	Long Venturi (60'+)
3	510053	Seal Plate O-Ring	15	510070	Nozzle
4	510052	Mechanical Seal	16	510062	Ejector Body
5	510048	Impeller	17	510063	Washers (2)
6	510047	Diffuser	18	510064	Ejector Cap Screws (2)
7	510065	Diffuser Plate	19	750969	1/4" Pressure Gauge (not shown)
8	510051	Diffuser Plate O-Ring	20	510077	Capacitor (not shown)
9	510050	Diffuser Plate Washers (3)	21	506375	SS Priming tube
10	510049	Diffuser Plate Screws (3)	22	506377	Priming plug and washer
11	510072	Flow Regulator	23	506376	Discharge fitting
12	510058	Pump Body	24	600600GP	Fluomac
13	510061	Eiector Gasket			



503332 / 503732 2014

Repair parts may be ordered from your autorized point of sale or from BUR-CAM PUMPS

TROUBLE SHOOTING GUIDE CHECKLIST

NEVER MAKE ADJUSTMENTS TO ANY ELECTRICAL APPLIANCE OR PRODUCT WITH THE POWER CONNECTED. DON'T JUST UNSCREW THE FUSE OR TRIP THE BREAKER, REMOVE THE POWER FROM THE RECEPTACLE.

TROUBLE

PROBABLE CAUSE

Motor does not run.

Switch is off position

Blown fuse

Tripped breakerù

Dirty pressure switch

Defective pressure switch

Defective motor

Motor runs but no water is delivered.

Pump not primed

Leaky suction line

Foot valve plugged

Ejector nozzle clogged

Water level below foot valve

Suction lift to great

Improper voltage

Pump does not deliver to full capacity.

Water level below foot valve

Ejector nozzle clogged

Excessive friction in pipe

Improper voltage

Pump does not shut off.

Leaky discharge line

Motor not up to normal speed

Improper setting of pressure switch

Ejector nozzle clogged

Pump starts and stop too often.

Pressure tank waterlogged

Leaky foot valve

Leaky suction line

Foot valve do not close properly

Pressure switch out of adjustment

Leaky discharge line (toilet etc.)

Air spurts from fawcets.

Leaky suction line

Gaz in water

Airlogged tank (galvanized)

ACTION

Turn switch to on position

Replace

Reset

Clean

Replace

Replace

Prime with clean water

Check pipe and pipe connections

Clean

Clean

Check foot valve level

Water level lower than lift capacity

Check voltage

Check foot valve level

Clean

Too small or dirty pipe

Check voltage

Check all pipes for leak

Check power cable and voltage

Reset or replace

Clean

Drain tank and restart

Replace

Check pipe and pipe connections

Clean or replace

Adjust on/off setting

Check all pipes for leak

Check pipe and pipe connections

Check and consult factory

Replace air volume control

TO THE END CONSUMER

If you have any problems with the product, before advising the store, where you've purchased the pump, please contact us at 514 337-4415, and ask for our sales department, and they will be pleased to help you with any questions you might have, concerning your installation.