

Myers®

MVP100 Vertical Jet

**Installation, Operating Instructions,
Parts List, Safety Instructions, and
Warranty Information**



23833A398

WARNING! IMPORTANT SAFETY INSTRUCTIONS! READ CAREFULLY BEFORE INSTALLATION. This manual contains important information for the safe use of this product. Read this manual completely before using this product and refer to it often for continued safe product use. **DO NOT THROW AWAY OR LOSE THIS MANUAL.** Keep it in a safe place so that you may refer to it often



FAILURE TO FOLLOW THESE INSTRUCTIONS AND COMPLY WITH ALL CODES MAY CAUSE SERIOUS BODILY INJURY, DEATH AND/OR PROPERTY DAMAGE

▲1) Before installing or servicing your pump,

BE CERTAIN THE PUMP POWER SOURCE IS TURNED OFF AND DISCONNECTED.

▲2) All installation and electrical wiring must adhere to state and local codes. Check with appropriate community agencies, or contact your local electrical and pump professionals for help.

▲3) **CALL AN ELECTRICIAN WHEN IN DOUBT.** Pump must be connected to a separate circuit directly from the entrance box. There must be an appropriately sized fuse or circuit breaker in this line. Tying into existing circuits may cause circuit overloading, blown fuses, tripped circuit breakers, or a burned up motor.

▲4) Do not connect pump to a power supply until the pump is grounded. For maximum safety, a ground fault interrupter should be used. **CAUTION: FAILURE TO GROUND THIS UNIT PROPERLY MAY RESULT IN SEVERE ELECTRICAL SHOCK.**

▲5) **WARNING:** Reduced risk of electric shock during operation of this pump requires the provision of acceptable grounding:

a) If the means of connection to the supply-connection box is other than grounded metal conduit, ground the pump back to the service by connecting a copper conductor, at least the size of the circuit conductors supplying the pump, to the grounding screw provided within the wiring compartment.

b) This pump is provided with a means for grounding. To reduce the risk of electric shock from contact with adjacent metal parts, bond supply box to the pump-motor-grounding means and to all metal parts accessible including metal discharge pipes, and the like, by means of a clamp, a weld, or both if necessary, secured to the equipment-grounding terminal.

▲6) The voltage and phase of the power supply must match the voltage and phase of the pump.

▲7) Do not use an extension cord; splices must be made with an approved splice kit. Above ground joints must be made in an approved junction box.

▲8) Do not work on this pump or switch while the power is on.

▲9) Never operate a pump with a protect it from sharp objects, hot surfaces, oil and chemicals. Avoid kinking the cord.

▲10) Never service a motor or power cord with wet hands or while standing in or near water or damp ground.

▲11) The three phase units must be wired by a qualified electrician, using an approved starter box and switching device.

▲12) Do not use this pump in or near a swimming pool, pond, lake or river.

▲13) Single phase motors are equipped with automatic resetting thermal protectors. The motor may restart unexpectedly causing the leads to energize or pump to turn. Three phase motors should be protected by proper, thermal and amperage protection. (Check local codes.)

▲14) Check for nicks in the wire and pump insulation by using an ohm meter and checking resistance to ground before installing the pump and after installing the pump. If in doubt on the proper procedure check with a qualified electrician.

▲15) Do not pump gasoline, chemicals, corrosives, or flammable liquids; they could ignite, explode, or damage the pump, causing injury and voiding the warranty.



▲16) Do not run this pump with the discharge completely closed this will create superheated water, which could damage the seal, and shorten the life of the motor.

This superheated water could also cause severe burns. Always use a pressure relief valve, set below the rating of the tank or system.

▲17) The following may cause severe damage to the pump and void warranty. It could also result in pump injury:

- Running the pump dry.
- Failure to protect the pump from below freezing temperatures.
- Running the pump with the discharge completely closed.
- Pumping chemicals or corrosive liquids.

▲18) Never work on the pump or system without relieving the internal pressure.

▲19) Do not pump water above 120° Fahrenheit.

▲20) Never exceed the pressure rating of any system component.

Installation & Service Instructions

1. PIPING

- a. The Myers MVP Vertical Ejector is designed for attaching the drop pipe directly to the base fittings (see Fig. 2) or mounting directly on a well adapter (see Fig. 3) or for pitless adapter installation on an adapter in a basement (see Fig. 4).
- b. When mounting directly on well adapter or with threaded pipe, block extra discharge port with plastic plug provided.
NOTE: Center hole is the suction port. Plug is undersized and should go below pump mounting surface for direct mounting on well adapter.
- c. The MVP base is tapped 1 1/4" x 1 1/4" NPT.

2. EJECTOR

- a. It is recommended that the ejector be set at a minimum of 10' below pumping level. A 34' tail pipe should be used on weak wells so pump will not lose prime if well is pumped down.
- b. Twin type ejectors are available with pipe tapings of 1" x 1 1/4" NPT and 1 1/4" x 1 1/4" NPT. For ejectors using 1 1/4" x 1 1/4" well pipes, make certain that delivery pipe is lined up with center opening in pump base. Do not reverse pressure and delivery pipes or pump will not develop pressure.
- c. Packer type ejectors are available for installation in 2" wells. The 2" size should be installed with a 1" delivery pipe. A turned coupling is required to secure the one inch pipe to a packer assembly.

3. ELECTRIC CIRCUIT

- a. Unit should be connected to a separate circuit, direct from main switch.
- b. A fused disconnect switch or circuit breaker should be used in this circuit.
- c. 230 volt current is recommended where available.

4. PRIMING PUMP AND SETTING PRESSURE REGULATOR VALVE.

- a. Remove 1/4" NPT pipe plug from pressure regulator body and fill pump and piping with water.
- b. Reinstall the 1/4" plug and screw down snug on regulator adjusting screw.
- c. Start pump. If pump is properly primed a high pressure will immediately show on gauge.
- d. If no pressure is obtained, stop motor and

- follow steps 1, 2 and 3 again.
- e. With pump operating at high pressure, slowly unscrew regulator adjusting screw until maximum flow is obtained without pressure dropping to zero (0).
- f. If pressure does drop completely, screw down regulator adjusting screw again. Then back it out until steady operation is obtained.
- g. Allow pump to discharge into open long enough to clear the well of any sand or dirt and insure well is not going to pump down.
- h. If well does draw down and break prime it will be necessary to lower the ejector deeper into the well, add a 34' tail pipe, or change to a smaller pump.
- i. Pump operating pressure should not be increased to reduce pump capacity when a standard pressure tank is used, as air control will not function properly if operating pressure is too high.
- j. Average operating pressure with a twin type ejector is 59 lbs. Packer type installations require slightly higher operating pressures.

5. UNUSUAL AND HARD TO PRIME INSTALLATIONS

On an installation where the pump is offset from the well a long distance and a high spot is encountered in the offset lines or some other unusual condition causes the unit to be hard to prime, proceed as follows:

- a. Follow Step 4a and 4b. Remove needle cock valve with tube fitting.
- b. Place plastic tube on closed needle cock valve in pump base and insert tube in a bucket of water (see Fig. 5).
- c. Start motor and open needle cock valve in pump base. Water will be drawn into the pump from the bucket during priming. As soon as water starts pumping out through the tube into the bucket, close the valve.
- d. Continue as outlined in section 4.

6. CONNECTING PUMP TO TANK

- a. It is recommended that the pump not be connected to tank until pumping test is made on pump and well.
- b. The pressure regulator on all units is a 1" discharge size. Piping between pump and tank should be of same size as regulator discharge. See illustrations.

7. CONNECTING AIR CONTROL

(For standard pressure tank only)

- The air control tube is connected into the 1/4" pipe tapping in the pump base suction, and is used with standard pressure tank only (See Fig. 1).

8. PRECHARGING AIR GUARD PRESSURE TANK

Installation can be precharged to increase the capacity and gallons per draw.

Precharging reduces the number of pump starts, increases pump life and saves electricity. To precharge tank follow these steps.

- After pump is primed and connected to tank, let system start and stop twice to become stabilized. Shut system down.
- Drain down to 9 PSI and precharge the tank through air valve, using a compressor or hand operated air pump according to instructions shipped with tank.

- It is recommended that all pipe plugs and connections above the water line on all pressure tanks be checked with soapsuds to determine if there are any leaks.

10. PACKER TYPE INSTALLATION: For 2" Diameter Wells

- Connect packer ejector assembly to drop pipe and lower into well to within approximately 18" of desired depth.
- Connect well adapter to top of drop pipe, lower into well casing and make connection.
- Mount pump on well adapter, as shown in figure 3.

11. CONCENTRIC PIPING INSTALLATION FOR USE WITH PITLESS WELL ADAPTERS

- Piping should slope from pump to well without dips or high spots.
- Connect horizontal well adapter, Catalog #HA2-20A, or HA2-30A to horizontal piping leaving machined face upward.
- Mount pump on adapter, as shown in figure 4.
- Prime as instructed in Section 4.

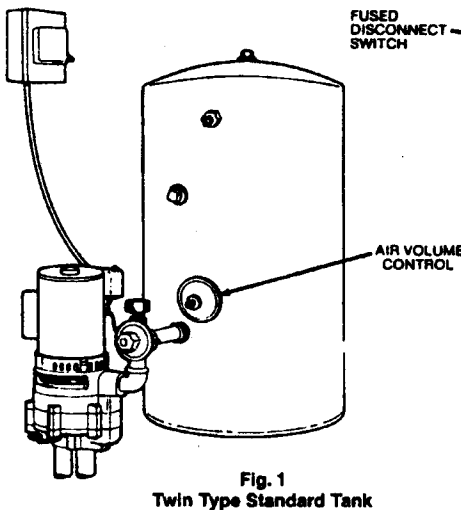


Fig. 1
Twin Type Standard Tank

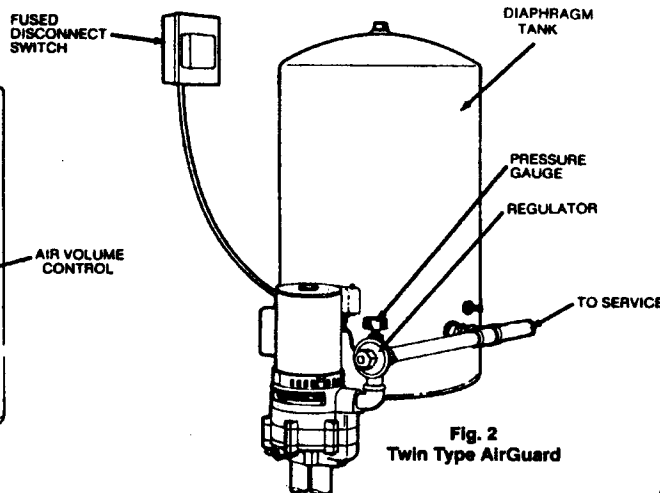


Fig. 2
Twin Type AirGuard

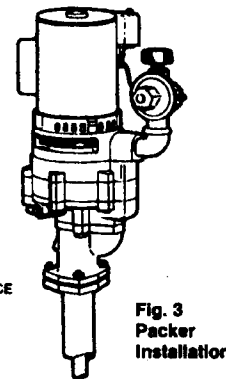


Fig. 3
Packer
Installation

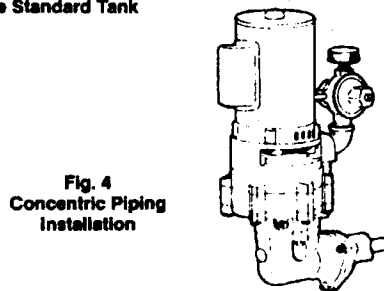


Fig. 4
Concentric Piping
Installation

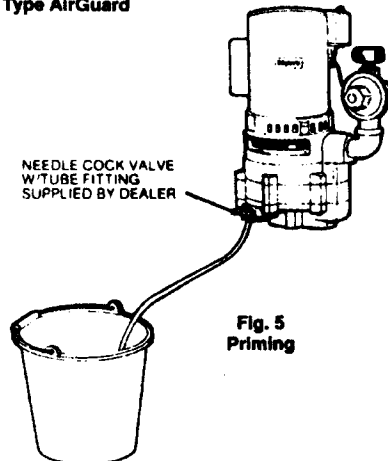
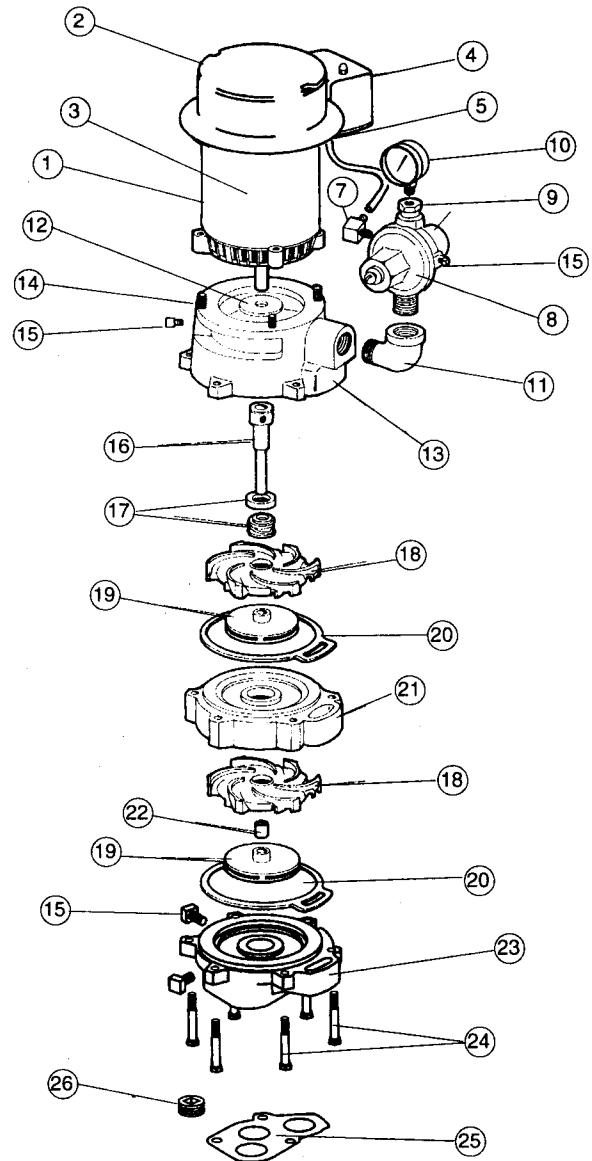


Fig. 5
Priming

1 HP MVP100 Parts List

Ref. No.	Part No.	Description	Qty. Req'd
1	16600A000	Motor, 1 HP	1
2	16369A017	Cover, Drip	1
3	14742A000	Emblem, Myers	1
4	15760A002	Switch, 40-60 lbs.	1
	08715A000	Nut, Conduit Nipple	1
	15021A001	Nipple -- Units w/separate nipple	1
	05030A095	Washer -- nits w/separate nipples	2
5	23188A002	Fitting, 1/4" NPT	2
7	23188A001	Fitting, 1/8" NPT	1
8	15496B001	Regulator	1
9	05004A077	Bushing, 1/2" x 1/4"	1
10	25239A001	Gauge, Pressure	1
11	05010A009	Elbow, 1" straight	1
12		Slinger	1
13	19423D001	Bracket	1
14	19101A008	Screw, Cap 3/8"-16 x 7/8"	4
15	05022A009	Plug, 1/4" NPT	3
16	19443A001	Shaft w/set screws	1
	05013A015	Screw, set 5/16"-18 x 5/16	2
17	11416A000	Seal	1
18	19427D000	Diffuser	2
19	19435B010	Impeller, Lexan	2
20	19430B000	Gasket	1
21	19446C001	Bowl	1
22	19444A000	Spacer	1
23	26543D000	Base	1
24	19101A032	Screw, Cap 3/8"-16 x 2-3/4" lg.	6
25	26582B000	Gasket, neoprene	1
26	05022A087	Plug, 1-1/4" NPT	1
	09859A060	Wire, Electrical - optional	2



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Pentair Pump Group

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MYERS LIMITED WARRANTY WATER SYSTEMS

During the time periods and subject to the conditions hereinafter set forth, **F. E. Myers** will repair or replace to the original user or consumer any portion of your new **MYERS product which proves defective due to defective materials or workmanship of MYERS**. Contact your nearest Authorized **MYERS Dealer** for warranty service. At all times **MYERS** shall have and possess the sole right and option to determine whether to repair or replace defective equipment, parts, or components. Damage due to lightning or conditions beyond the control of **MYERS** is NOT COVERED BY THIS WARRANTY.

WARRANTY PERIOD

Pumps & Galvanized Tanks: 12 months from date of purchase or 18 months from date of manufacture.

Diaphragm Tanks: 5 years from date of purchase.

Labor, etc. Costs: **MYERS** shall IN NO EVENT be responsible or liable for the cost of field labor or other charges incurred by any customer in removing and/or reaffixing any **MYERS** product, part or component thereof.

THIS WARRANTY WILL NOT APPLY: (a) to defects or malfunctions resulting from failure to properly install, operate or maintain the unit in accordance with printed instructions provided; (b) to failures resulting from abuse, accident or negligence; (c) to normal maintenance services and the parts used in connection with such service; (d) to units which are not installed in accordance with applicable local codes, ordinances and good trade practices; or (e) unit is used for purposes other than for what it was designed and manufactured, and (f) if three phase submersible motors are installed on a single phase power supply using a phase converter or if three phase power is supplied by only two transformers, making an open Delta system.

RETURN OR REPLACED COMPONENTS: Any item to be replaced under this Warranty must be returned to **MYERS** in Ashland, Ohio, or such other place as **MYERS** may designate, freight prepaid.

PRODUCT IMPROVEMENTS: **MYERS** reserves the right to change or improve its products or any portions thereof without being obligated to provide such a change or improvement for units sold and/or shipped prior to such a change or improvement.

WARRANTY EXCLUSIONS: **MYERS SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AFTER THE TERMINATION OF THE WARRANTY PERIOD SET FORTH HEREIN.**

Some states do not permit some or all of the above warranty limitations and, therefore, such limitations may not apply to you. No warranties or representations at any time made by any representatives of Myers shall vary or expand the provision hereof.

LIABILITY LIMITATION: IN NO EVENT SHALL **MYERS** BE LIABLE OR RESPONSIBLE FOR CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES RESULTING FROM OR RELATED IN ANY MANNER TO ANY **MYERS** PRODUCT OR PARTS THEREOF. PERSONAL INJURY AND/OR PROPERTY DAMAGE MAY RESULT FROM IMPROPER INSTALLATION. **MYERS** DISCLAIMS ALL LIABILITY, INCLUDING LIABILITY UNDER THIS WARRANTY, FOR IMPROPER INSTALLATION -- **MYERS** RECOMMENDS FOLLOWING THE INSTRUCTIONS IN THE INSTALLATION MANUAL. WHEN IN DOUBT, CONSULT A PROFESSIONAL.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

In the absence of suitable proof of this purchase date, the effective date of this warranty will be based upon the date of manufacture.

DETERMINATION OF UNIT DATE OF MANUFACTURE: Examples are; *Submersible* -- 7-29-95, Month - Day - Year on Motor nameplate and pump nameplate; *Sump, Centrifugal & Ejecto Pumps* -- 8-95, Month - Year stamped on pump nameplate; *MYERS Diaphragm Tanks* -- A95188581, 1st letter month A = 85 -- tanks are postdated by 3 months on label; *Galvanized* -- 3-0921 Year - Month - Day 1995-9-21 stamped on edge of head.

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