GROWONIX

TUNED FOR GROWING



DDP-4 Vari
Owners Manual

WWW.GROWONIX.COM



Built in the U.S.A.

INTRODUCTION

Our Mission

Durability, Reliability, Efficiency, Purity, and Conservation form the foundation on which we design and build all of our products. Consistent and superior quality sets us apart from other manufacturers and increases our value to you - our customer. Whether you are a hydroponics hobbyist, serious enthusiast, or large-scale gardener, GrowoniX is committed to bringing you the best solution for water purification systems.

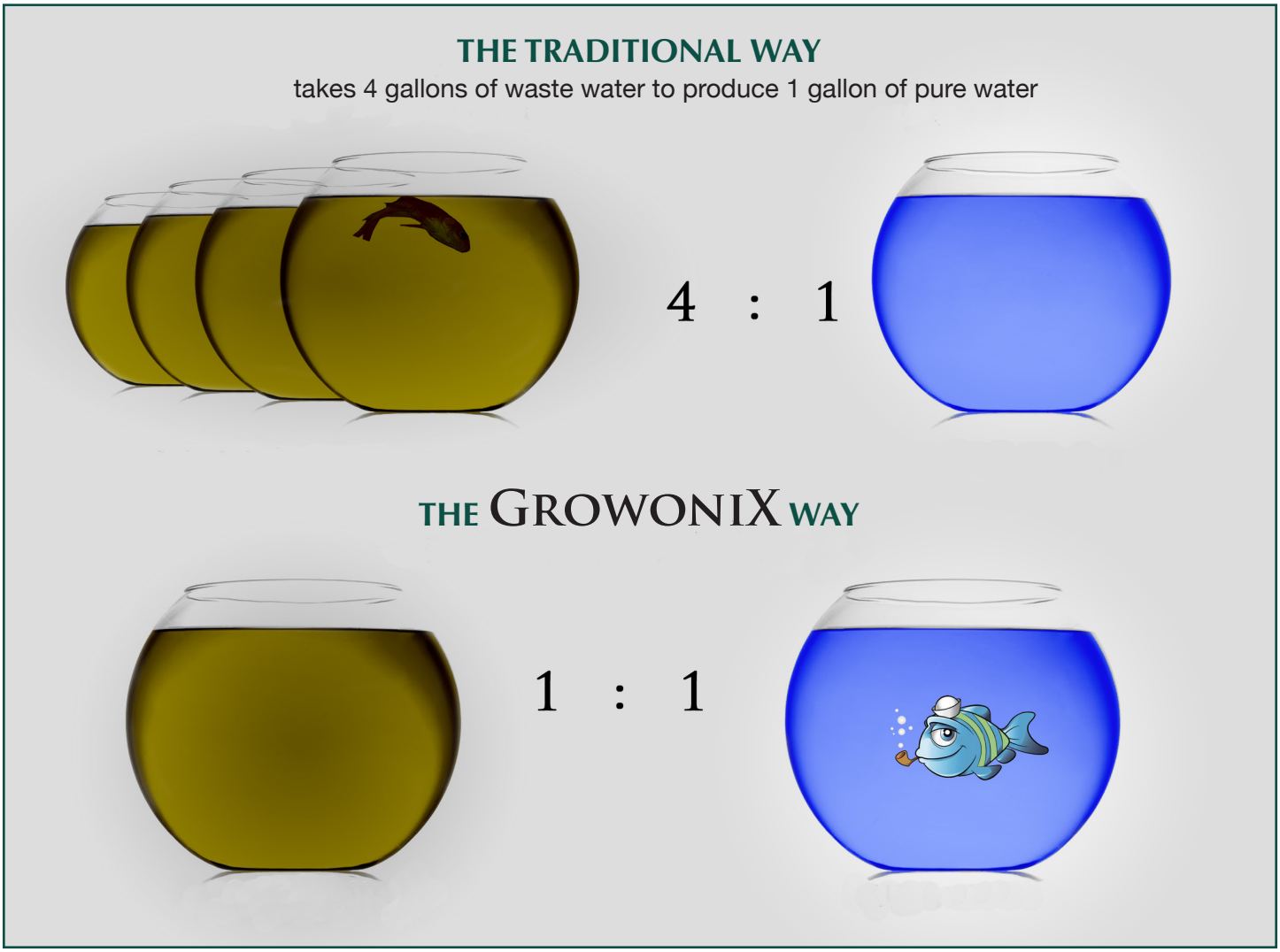
What is Reverse Osmosis?

Reverse osmosis (RO) is a filtration method that removes many types of large molecules and ions from solutions by applying pressure to the solution when it is on one side of a selective membrane. This filtering process ensures that the solute (waste water) is contained within the pressurized chamber while the pure solvent (RO water) is allowed to pass freely through the membrane.

Tuned for Growing - In Tune with Our Customers

Traditional RO systems have waste ratios of approximately 4:1, which means there are 4 gallons of waste water produced for every 1 gallon of purified water. GrowoniX line of water filters achieve waste ratios of 2:1 with all 200-400 GPD systems, and an astounding 1:1 ratio with the 600-1000 GPD systems.

GrowoniX has created a complete product line that will address the needs of hydroponic operations of all sizes. Our filters will significantly reduce your water use while dramatically increasing your yields.



FEATURES

- Up to 4GPM Flow Rate.
- High Pressure Cutoff .
- 1/2” Quick Connect Fittings (others available).
- Variable Speed (slows down and speeds up to keep 55psi).
- Thermal Shutdown Protection.
- Can Siphon From a Tank or Barrell and Produce the Full Flow Rate and Pressure.



WHY USE A GROWONIX DDP-4 VARI?

- To transfer water from tank to tank.
- To supply a watering wand for feeding plants.
- To supply a sprayer for misting, cleaning, gardening.
- To raise the water pressure on a water filter.
- To raise the pressure on any water appliance that flows from between 1-4 GPM @ 55psi.
- To bilge out water from a tank or reservoir.
- To supply a faucet, shower, or hose bib.

No Assembly Required

CONNECT MULTIPLE IN PARALLEL AND DOUBLE THE FLOW RATE!

PRECAUTIONS

READ ENTIRE MANUAL THOROUGHLY BEFORE INSTALLING THIS HIGH PRESSURE-BOOSTING PUMP.

CAUTIONS

- Do not operate the pump above the pressure limitations specified on the data label. Never operate the pump in a harsh environment or hazardous atmosphere, since motor brush and switch may cause electrical arcing.
- Consult with the factory if the pump is to be used with fluids other than water. Do not use with flammable or hazardous fluids.
- As long as there is inlet water pressure, the pump will not stop forward flow of water even if the motor is turned off. Be sure the system has positive means of shutting off water supply.
- Always consider electrical shock hazard when working with and handling electrical equipment. If uncertain, consult an Electrician. Electrical wiring should only be done by a qualified Electrician per Local and State Electrical Codes.

MOUNTING

- The pump should be mounted in a dry place and away from any source of heat.
- If an enclosure is used, special instructions for cooling the motor may be necessary. Consult the Factory.
- Do not subject the pump to extreme high or low (freezing) temperatures while in operation. (Operating ambient temperature range 32°F to 115°F).
- The pump may be mounted horizontally with the outlet port on the right when viewed from the pump end or with the pump above the mount; or vertically with the pump above or below the motor.

PLUMBING

- The pump is equipped with either a pressure sensing demand switch and a bypass relief valve, which controls the maximum safe operating pressure.
- We recommend use of flexible tubing with proper pressure rating.
- Pump will prime only if all pressure is relieved from outlet port.
- It is recommended that debris-free water be pumped or an in-line sediment filter (100 mesh) be installed at the inlet side to keep foreign debris out of the system.
- The pump should always be mounted prior to any components which could introduce particles to the water; thus preventing them from entering the pump chambers and possibly causing clogging.
- Avoid any sharp bends which may crimp tubing and restrict flow. Use 90° elbow fittings if necessary.

ELECTRICAL

- The DDP-4 Vari pump is designed for intermittent duty, but may run continuously if the motor temperature does not exceed the recommended limit.

- DDP Series Pumps are equipped with thermally protected motors, and in case the motor temperature exceeds the thermal cut-out rating, the pump will shut down, and will not restart until motor cools down to specified temperature.

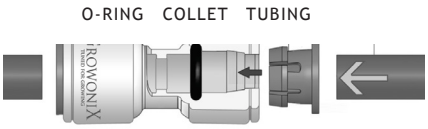
SPECS

Part #	PLUMBING In / Out	Voltage	Amps	Flow Rate	High Pressure Cutoff	Duty Cycle
DDP-4-VARI	1/2" quick connect	120 VAC	1.6	1-4 GPM	Yes	Intermittent

GROWONIX WATER FILTERS USE QUICK CONNECT FITTINGS THAT ALLOW FOR EASY MAINTENANCE.

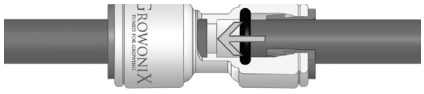
MAKE A CLEAN TUBE CUT

Cut the tube squarely and if using plastic tubing, ensure that the cut has not made the tube out of round.
Also ensure that the tube has a smooth outside diameter without any burrs or score marks prior to inserting it into the fitting.



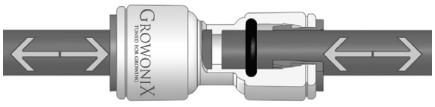
INSERT TUBE INTO FITTING

Push the tubing through the collet and dual o-rings until it bottoms out against the tube stop.
The collet holds the tube in place and the dual o-rings provide a leak resistant seal.



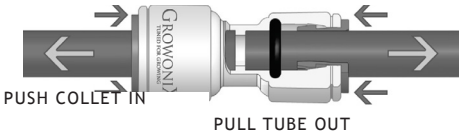
TEST AND INSPECT

Push and pull the tubing toward and away from the fitting to ensure that it has been installed properly.
Test and inspect the installation for any leaks.



TUBE REMOVAL

Relieve pressure from the tubing and fitting.
Push uniformly around the collet flange against the fitting body while pulling the tubing away from the fitting to release it.



GUIDELINES

OPERATIONAL & INSTALLATION GUIDELINES

READ CAREFULLY BEFORE INSTALLING THE PUMP.

- The basic demand pump is controlled by a built-in pressure sensing demand switch.
- When a faucet or valve is opened down stream of the pump, line pressure drops thus starting the pump automatically. Conversely, when the valve shuts, the line pressure increases turning the pump off automatically.
- The pressure switch actuates in response to the pump outlet pressure at a predetermined and preset pressure. The pump label indicates the pre-set OFF pressures. Typically, the OFF pressure is accurately set at the FACTORY and the ON pressure is within an allowable range below that value.
- In response to the characteristics of the system in which the pump is installed, such as the flexibility and length of the tubing, and the faucet or valves and the duration that they are open, these pressure settings may vary. Therefore, changes in pressure settings is expected with use and over time.

DETERMINE THE OPTIMUM LOCATION FOR YOUR PUMP BEFORE PROCEEDING.

- Turn off the water.
- Cut the flexible tubing in sufficient length to avoid any stress on the tubing where it connects to the pump or the fitting on any accessory.
- Insert tubing into pump ports. If fittings are John Guest type, be sure tubing is inserted past the resistance point until it bottoms out against the port stop. If compression fittings with threaded nuts are used, insert tubing until it bottoms out in the port and hand tighten the compression nut until the connection is tight. Then use a wrench to tighten the nut 1/2 turn clockwise or follow the wrench tightening instructions provided by the fitting manufacturer.
- The “DDP” pump is now ready for operation. Open the inlet water valve if any to allow water to flow to the pump.
- If the power source is a transformer, plug the appropriate Aquatec supplied or approved transformer into the receptacle and connect the pump to the transformer.
- If the power source is not a transformer, connect the pump to the appropriate power source. Open the discharge or dispensing valve. Allow water to circulate, purging any entrapped air.
- The pump will now start building pressure. Operating pressure will vary with flow rate, flow valve, feed-water pressure and line voltage. Check for fitting leaks.
- If compression fittings with threaded nuts are used, observe any leaks after pump has run for approximately 15 minutes

ADJUSTING THE PRESSURE SWITCH (ALTHOUGH SHOULD NOT BE NECESSARY).

- ADJUSTING THE PRESSURE SWITCH. Should the pressure switch OFF setting vary with use and time to an unsuitable value, it may be adjusted for optimum performance. Turn the set screw clockwise to increase the OFF pressure setting and counter clockwise to decrease. The screw should not be adjusted more than one turn without consulting the Factory. Excessive adjustment of the pressure switch could cause low system pressure, and rapid ON/OFF cycling, reducing pump and motor life. Damage may also occur if recommended maximum pressures are exceeded. The Warranty does not cover improper adjustment of the pressure switch.

- Rapid On/Off Cycling must be limited to no more than 6 times per minute, even if the pump is operating in the Continuous Duty zone. Cycling could cause the motor to heat beyond the recommended maximum temperature, and reduce the operational life of the pump and pressure-sensing switch.

SERVICING:

- Every Year: Check system against operating standards. If continuous duty, replace lower housing assembly

- Every Other Year: Check against operating standards. If continuous duty, replace motor

- Every Fifth Year: Replace valves

GROWONIX SYSTEM WARRANTY

For a period of one year from the date of original purchase, we will replace or repair any part of the GrowoniX product that we find to be defective in operation due to faulty materials or workmanship with the exception of the replaceable filters and membranes.

GENERAL CONDITIONS

Damage to any part of this product because of misuse; misapplication; negligence; alteration; accident; installation; or operation contrary to our instructions, incompatibility with accessories not installed by GrowoniX, or damage caused by freezing, flood, fire, or Act of God, is not covered by this warranty. In all such cases, regular charges will apply. This limited warranty does not include service to diagnose a claimed malfunction in this unit. This warranty is void if the claimer is not the original purchaser of the unit or if the unit is not operated under normal municipal water or well water conditions.

GrowoniX assumes no liability in connection with this product. GrowoniX assumes no liability for any damages incurred through the use of this product. It is the responsibility of the end user to gauge the safe use of this product in the environment where it is applied. We do not authorize any person or representative to assume for us any other obligations on the sale of this reverse osmosis system. The information given out in the manual we believe to be true, but are offered to you in good faith without guarantee because each application of this product is different and beyond our control.

GROWONIX RETURN POLICY

Merchandise Return Details and Procedure:

If any merchandise was defective —we will refund the full purchase price upon receiving and reviewing the merchandise returned in undamaged condition.

RMA Number:

You must first obtain a Return Merchandise Authorization (RMA) number from GrowoniX.com. Any products sent to GrowoniX without an RMA number will not receive a refund and may be returned to the sender at their expense.

All refund amounts will be based on the manufacturer's warranty and GrowoniX return policy. Refunds will be issued back using the payment method you used when you placed your order. Refunds take up to 3-5 business days to process once we receive the return.

Packaging:

Please kindly re-pack the product in its original box, or a box of equivalent strength. The unit should be packed in the same manner as it came to prevent damage in shipping. Please return everything that was in the original box, including any free items if applicable. Be sure to drain out all water from wet systems and parts and wrap them in plastic bags before packing.

Return To:

We will provide you with an GrowoniX warehouse address for return merchandise when we issue the RMA number.