

GROWONIX

TUNED FOR GROWING



EX100, EX200, EX400 & EX400T OWNERS MANUAL

WWW.GROWONIX.COM



1:1

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 the EX100 through GX400 and an astounding 1:1 ratio with the GX600 and GX1000.

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.

THE TRADITIONAL WAY

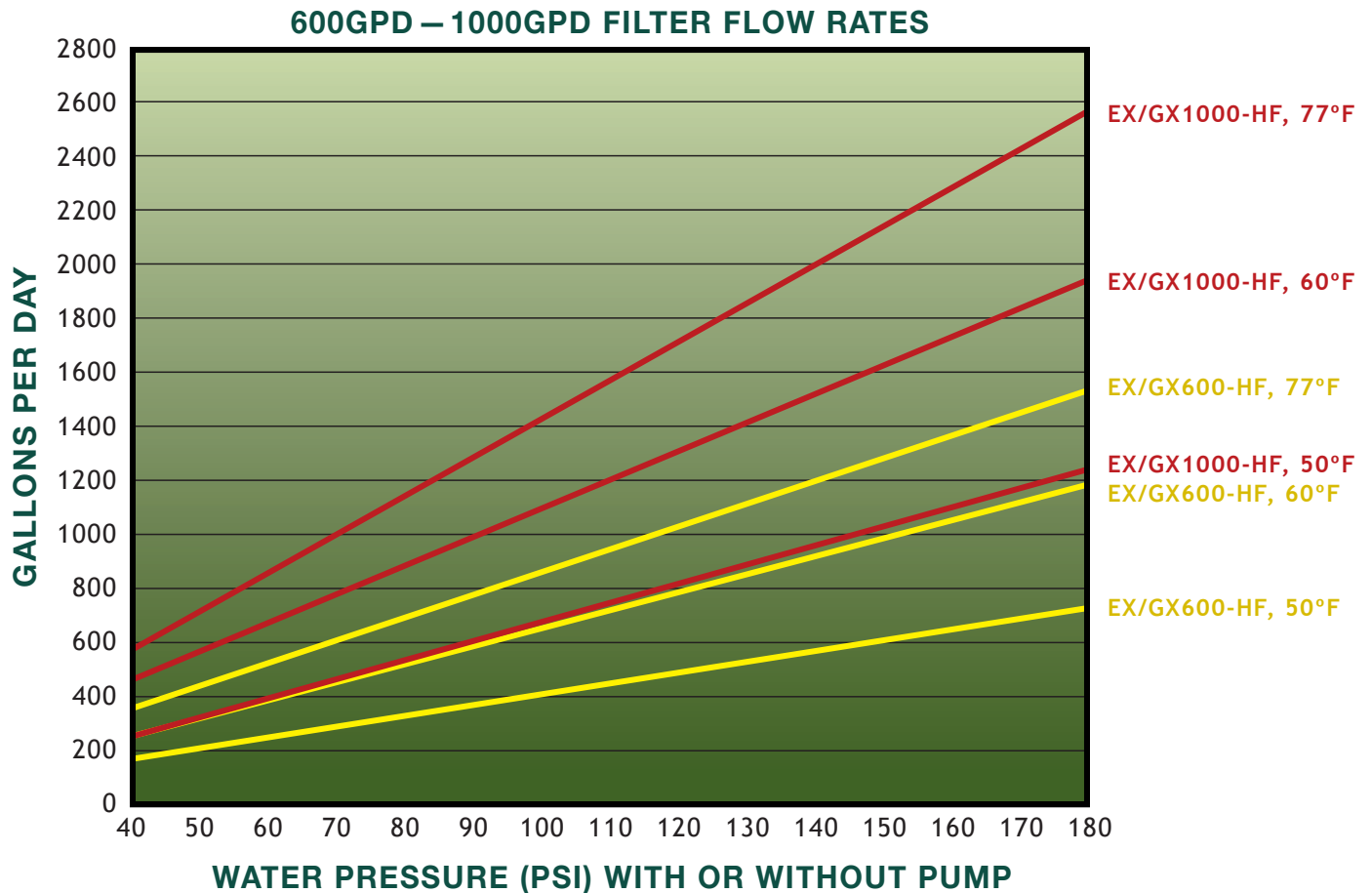
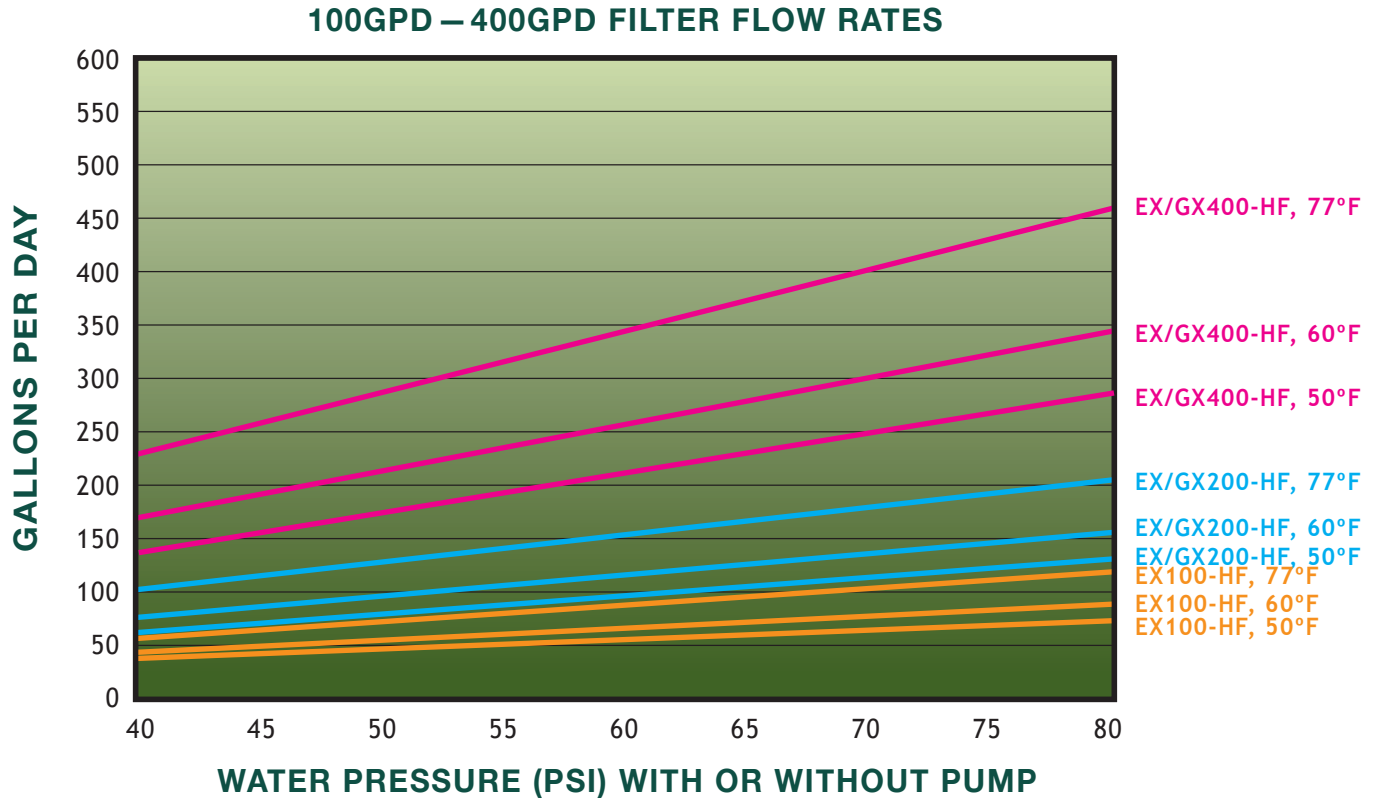
takes 4 gallons of waste water to produce 1 gallon of pure water



THE GROWONIX WAY



FLOW RATES

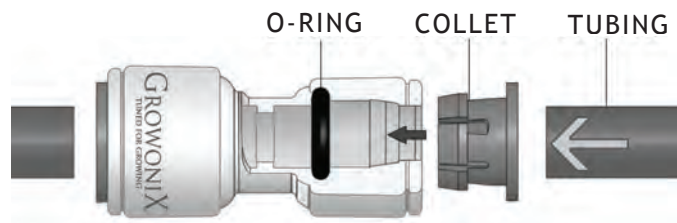


INFORMATION ON QUICK CONNECT FITTINGS

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

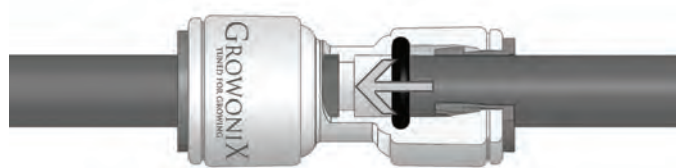
MAKE A CLEAN TUBE CUT

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.



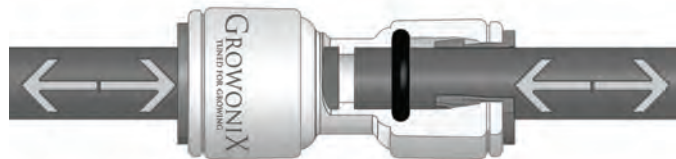
INSERT TUBE INTO FITTING

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

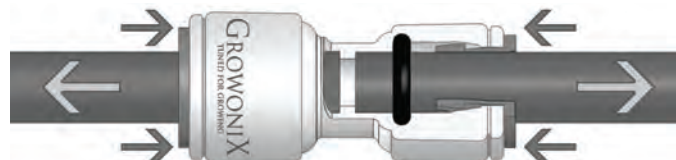
Push and pull the tubing toward and away from the fitting to ensure that it has been installed properly. Test and inspect the installation for any leaks.



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.

PUSH COLLET IN



PULL TUBE OUT













EX100/EX200/EX400

2:1 WASTE RATIO



FEATURES:

-  100 / 200 / 400 GALLON PER DAY SYSTEMS
-  4 / 8 / 17 GALLONS PER HOUR
-  2:1 WASTE RATIO
-  SPUN SEDIMENT FILTER FOR EXTREME DIRT FILTERING CAPACITY
-  COCONUT CARBON BLOCK
-  PATENTED METAL HOUSING
-  AUTO SHUTOFF VALVE
-  EZ HOOKUP KIT
-  WALL MOUNTABLE
-  USES 50% LESS WATER THAN TRADITIONAL RO SYSTEMS



NO ADDITIONAL PRE-FILTERS NEEDED

MEMBRANE FLUSH KIT OPTIONAL



Built in the U.S.A.



No Assembly Required

THE EX SERIES

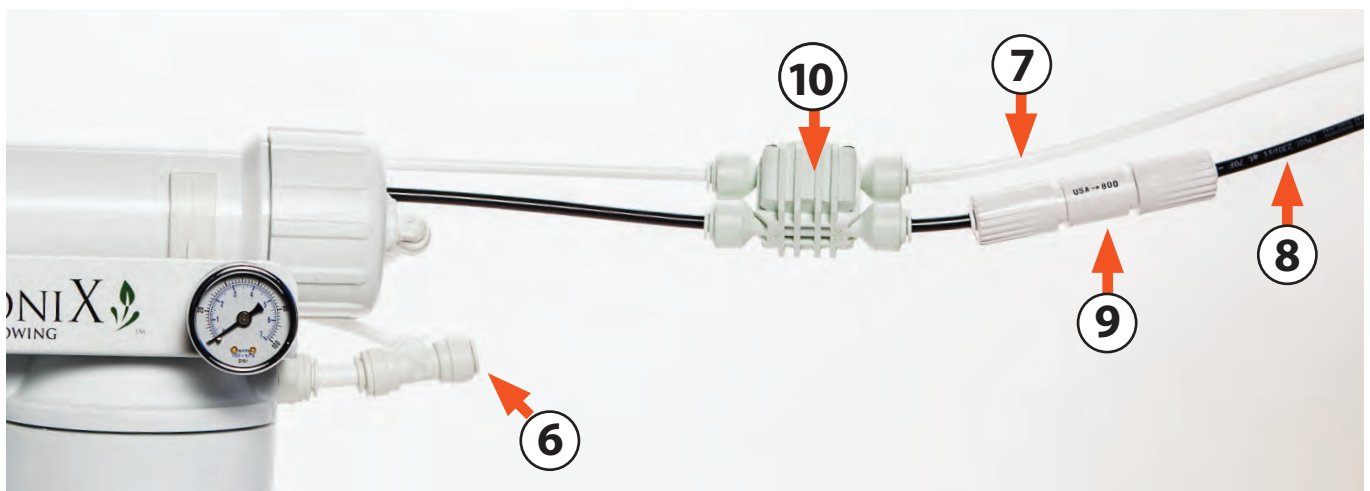
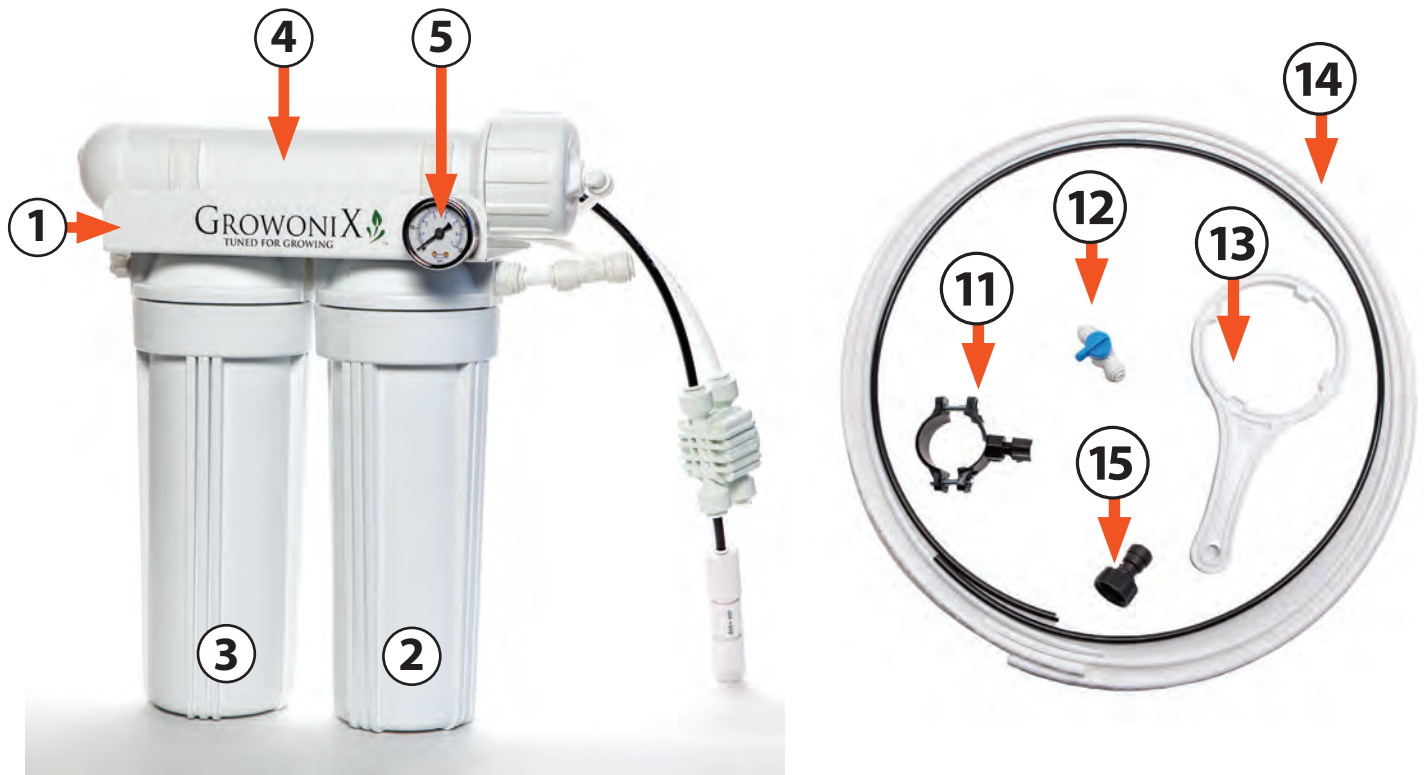
The EX Series is designed to flow between 4 and 17 GPH, (Gallons Per Hour) at almost 0 ppm RO water, with a 2:1 waste ratio. It's affordable and durable, packed with features you would expect from a higher priced unit. It outflows all other RO's in its class, with all the quality you would expect from a GrowoniX product.

PRECAUTIONS

- Do not use unit with inlet water pressure exceeding 80 psi. If inlet water pressure is too high, install water pressure regulator before the unit. Regulators and pressure limiters are available at www.Growonix.com or your local plumbing supply.
 - Keep unit away from direct light.
Direct light can cause algae and other biologicals to grow inside of the filter housings.
 - Do not install unit near electrical outlets or electrical devices.
 - Do not install in places where a leak can cause damage.
-
- GrowoniX EX Series RO water filters are rated using supply water that is 77°F, 475ppm, at 70psi. Slower performance may be noted in areas with colder temperatures, higher water salinity, or lower inlet water pressure.
 - A minimum of 40psi is recommended to operate GrowoniX water filters. If your inlet water pressure is too low, booster pumps can be used to increase pressure. Pumps are available at www.Growonix.com.
 - Do not use a flow restrictor other than the one included with your unit.
 - Flow restrictors help tune the unit for proper waste ratio.
 - Using bigger flow restrictors, or using the unit in areas with exceptionally dirty water,

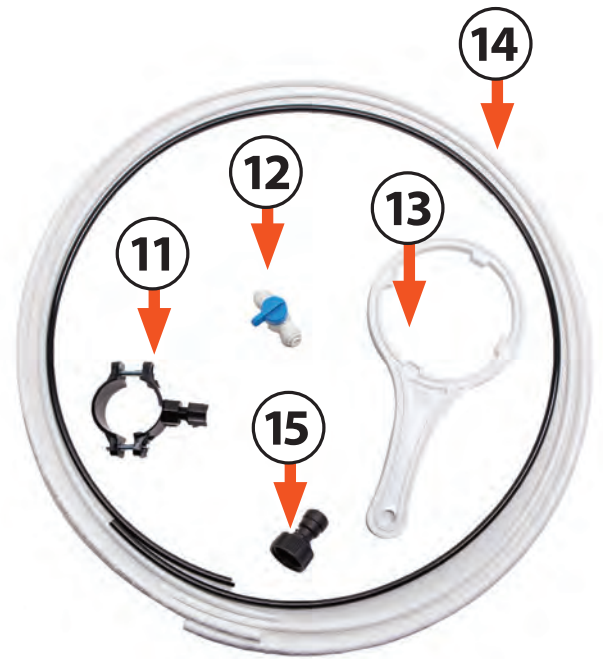


EX100, EX200 COMPONENT DIAGRAM

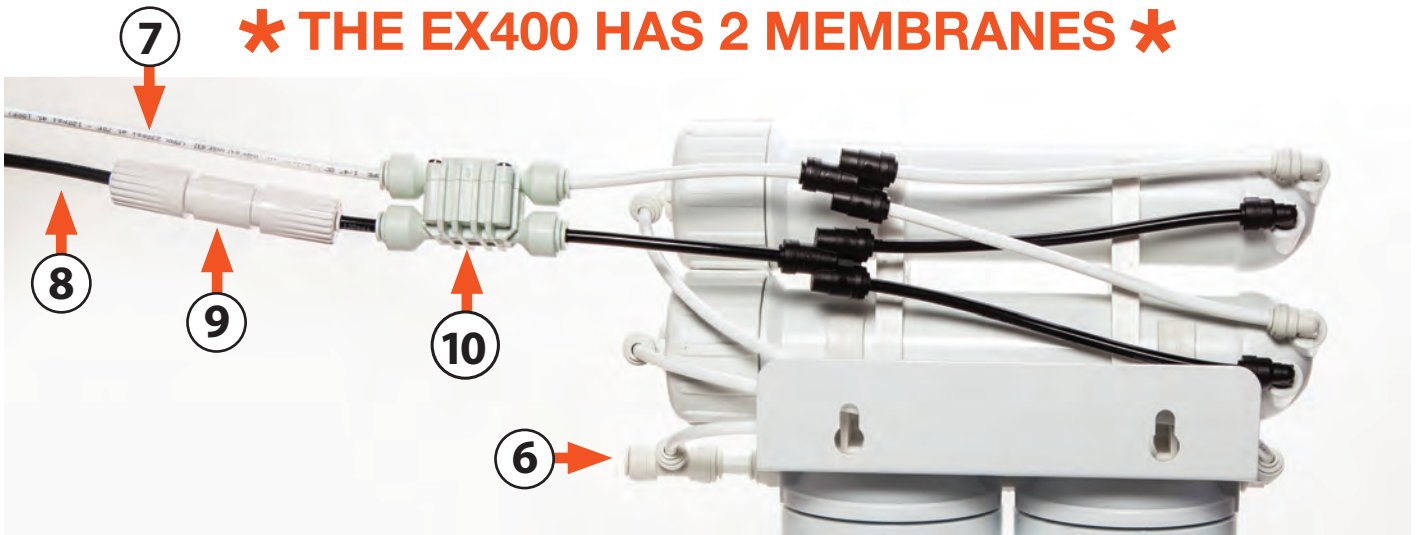


- | | |
|---------------------------------|----------------------------------|
| 1. Patented EX mounting bracket | 9. Flow restrictor |
| 2. Sediment filter | 10. Auto shutoff valve |
| 3. Carbon filter | 11. Drain saddle clamp |
| 4. RO membrane | 12. In line shutoff valve |
| 5. Pressure gauge | 13. Filter wrench |
| 6. Supply water in | 14. Supply, RO, and drain tubing |
| 7. RO water out | 15. Garden hose adapter |
| 8. Waste/drain tubing | |

EX400 COMPONENT DIAGRAM



*** THE EX400 HAS 2 MEMBRANES ***



1. Patented EX mounting bracket
2. Sediment filter
3. Carbon filter
4. RO membranes*
5. Pressure gauge
6. Supply water in
7. RO water out
8. Waste/drain tubing

9. Flow restrictor
10. Auto shutoff valve
11. Drain saddle clamp
12. In line shutoff valve
13. Filter wrench
14. Supply, RO, and drain tubing
15. Garden hose adapter

SETUP INSTRUCTIONS

IMPORTANT TIPS:

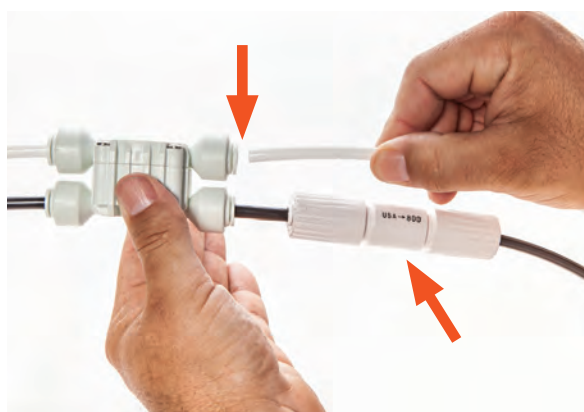
- The EX100, EX200, & EX400 water filters are designed to be used with between 40-80 psi of incoming water pressure.
- High Flow Membranes can work with as low as 20 psi of incoming water pressure.
- Do not exceed 80 psi of incoming water pressure. If incoming water pressure is too high, install pressure regulator before unit. Pressure regulators are available at www.GrowoniX.com
- Always turn incoming water pressure on slowly, allowing all air to be discharged before full water pressure is restored.

1



Connect 3/8" white supply tubing to the inlet fitting, making sure inlet seats all the way in quick-connect fitting. This is the supply water line.

2



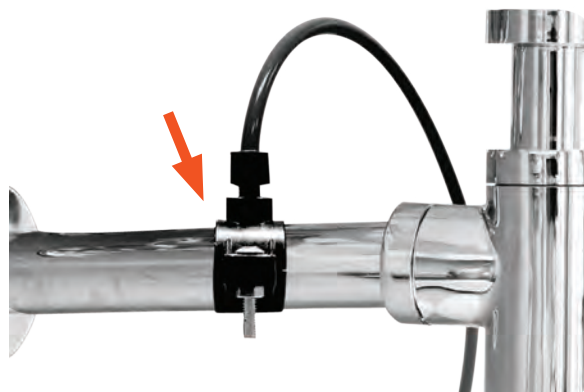
Connect 1/4" white RO tubing to the auto shut-off valve, making sure RO tubing seats all the way in quick-connect fitting. This is the filtered RO water out line.

3



Connect the 1/4" black drain tubing to the flow restrictor.

4



Mount drain clamp to available drain pipe. Connect other end of drain tubing to included drain clamp.

FLUSHING THE EX100 KDF85 CARBON FILTER

Growonix water filters can be upgraded with a KDF85 Catalytic Carbon Pre-Filter. The "KDF" carbon filter is a superior blend of highly reactive catalytic carbon and KDF85 process media used to remove/reduce iron, hydrogen sulfide, chlorine, chloramine, bacteria, scale, and algae.

The catalytic carbon in these filters is in a loose form, and thus will discharge a small amount of carbon dust upon initial startup. It is recommended to unhook the membrane input side and flush ten gallons of water through the carbon filter before re-connecting to the RO membrane. This will ensure no dust gets into the membrane causing premature fouling.

1



Make sure incoming feed water is shut off, ensuring the RO filter is depressurized.
Disconnect the 1/4" white tubing that feeds the membrane input from the carbon filter.

2



Hold tubing over sink or bucket.
Slowly turn on incoming water pressure, allowing 5 gallons of water to flush through the carbon filter.
Once flushed, turn off incoming feed water.

3

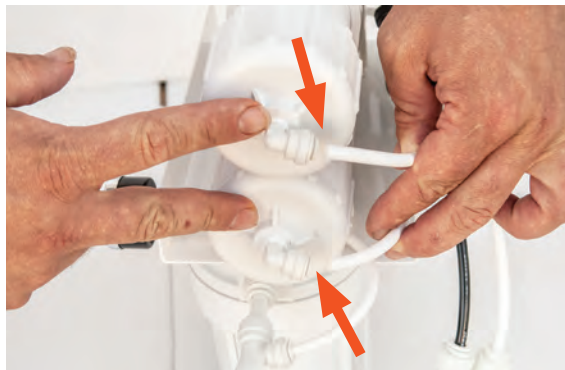


Reconnect tubing to membrane input and resume normal filter operation.

FLUSHING THE EX400/400-T KDF85 CARBON FILTER

*** THE EX400 AND EX400-TALL HAVE TWO RO MEMBRANES ***
IT IS NECESSARY TO DISCONNECT BOTH MEMBRANE FEED LINES
TO PROPERLY FLUSH THE CARBON FILTER.

1



Make sure incoming feed water is shut off, ensuring the RO filter is depressurized.
Disconnect both 1/4" white lines that feed both membranes' input from the carbon filter.

2



Hold tubing over sink or bucket.
Slowly turn on incoming water pressure, allowing 5 gallons of water to flush through the carbon filter.
Once flushed, turn off incoming feed water.

3



Reconnect tubing to membrane input and resume normal filter operation.



REPLACING SEDIMENT AND CARBON PRE-FILTERS

IMPORTANT TIPS:

- Pre-filters should be changed when either brown discoloration occurs, or system flow rates have significantly declined.
- Always turn incoming water pressure off before servicing the unit.
- Always turn incoming water pressure on slowly, allowing all air to be discharged before full water pressure is restored.

1



Unscrew sediment and carbon filter housings using supplied filter wrench. Wash inside of filter housings to remove debris.

2



Install new sediment and carbon filter, making sure they go into the correct filter housings.

3



When replacing filter housings, make sure housing O-rings are seated properly. O-rings function best when lubricated with food grade silicone lubricant.

4



Tighten filter housings by hand, do not use filter wrench. Do not over tighten.

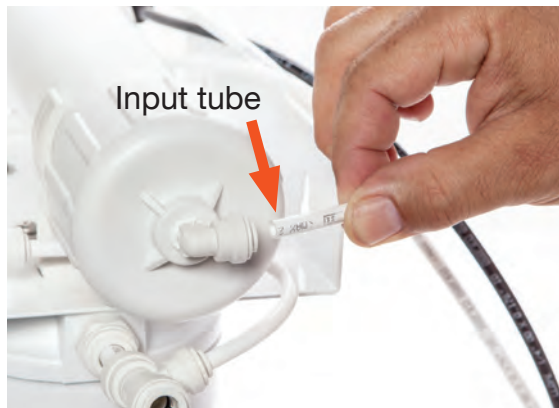
REPLACING MEMBRANE ELEMENT

IMPORTANT TIPS:

- The EX400 has 2 membranes; repeat the following steps for each membrane.
- Membranes should be replaced when system output significantly declines. Note: system output may decline due to other factors as well

(SEE: TROUBLESHOOTING)

1



Disconnect input tube(s) from RO membrane housing.

3



Pull out membrane using needle nose pliers or other similar tool.

2



Unscrew membrane housing end cap. Caps can be difficult to remove. Be sure to have a firm grip on opposite side of housing. Do not lose O-ring on inside of cap. Each cap has two O-rings.

4



Insert new membrane into housing, making sure the membrane-end with the brine seal goes in last. Make sure membrane is completely seated in the housing.

5



Replace end cap and tighten by hand. If O-rings are dry, lubricate with food grade silicone lubricant. Allow system to run for ½ hour before using RO water.

FLUSHING THE MEMBRANE ELEMENT

GrowoniX water filters come with a manual flush valve. Flushing the membrane element after each use for approximately 3-5 minutes will remove standing salts from the membrane, significantly extending membrane life. Even weekly flushes will improve membrane life and system performance.

1



Locate the Flow Restrictor

2



Remove the Flow Restrictor

3



Let system run for 3-5 minutes.
Replace the Flow Restrictor

SPECIFICATIONS CHARTS

PLEATED SEDIMENT FILTER 2.5 " DIAMETER

Materials of Construction:

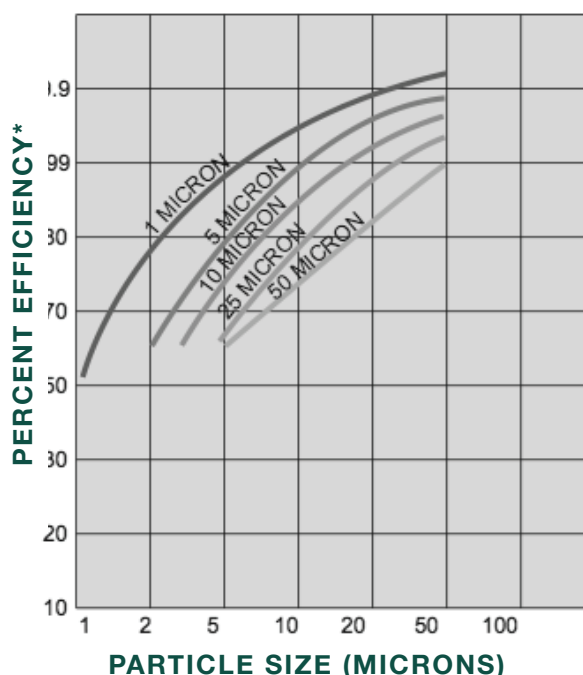
- Filter Media
- End Caps
- Core
- Temperature Rating
- Non-woven Polyester
- Vinyl Plastisol
- Polypropylene
- 40°F to 125°F (4.4°C to 51.7°C)

Size Description:

- 2.5" X 9 7/8"

Initial AP(psi) @ flow rate (gpm):

- 1 psi @ 10 gpm(.01 bar @ 38 L/min)



ECO COCONUT CARBON BLOCK FILTER

Materials of Construction:

- Carbon: NSF listed 61, Coconut Shell PAC
- End Caps: Polypropylene
- Inner/Outer Wraps: Polypropylene
- Nettings: Polypropylene
- Gaskets: NBR
- Temperature Ring: 40°F to 180°F

OD X Length:

- 2-3/4" X 9-3/4"

Nominal UM Rating

- 10

Initial AP(psi) @ flow rate (gpm):

- 1 PSI @ 30 GPM

Chlorine, Taste, Odor

Reduction Capacity Flow

- >8,000 gallons @ 1 GPM

RO MEMBRANE ELEMENT

Operating Limits:

- Membrane Type: Thin film composite
- Maximum Operating Temperature: 110°F (45°C)
- Maximum Operating Pressure: 125 PSI
- Maximum Feed Flow Rate: 1 GPM
- Maximum Concentrate Flow Rate: 4 x Permeate
- pH Range, Continuous Operation: 3-11
- Maximum Feed Water Turbidity: 1 NTU
- Maximum Feed Silt Density Index (SDI): 5 SDI
- Chlorine Tolerance: 0 PPM
- Applied Pressure PSI (BAR): 65 (4.48)
- Permeate Flow Rate GPD: 150
- Nominal Salt Rejection(%): 98%

GROWONIX REVERSE OSMOSIS SYSTEM WARRANTY

For a period of one year from the date of original purchase, we will replace or repair any part of the GrowoniX reverse osmosis water system 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 reverse osmosis system 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 reverse osmosis system. 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.

THE FOLLOWING STANDARD OPERATING CONDITIONS FOR RESIDENTIAL/COMMERCIAL REVERSE OSMOSIS SYSTEMS MUST BE MET FOR WARRANTY TO BE VALID.

	Water Pressure	pH Range	Maximum TDS	Water Temp
Standard System	40-80 psi	2-11	2000 ppm	40-100 F

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.