

GROWONIX

TUNED FOR GROWING



CHEMICAL INJECTION PUMP OWNERS MANUAL

WWW.GROWONIX.COM



1:1

CHEMICAL INJECTION PUMP

Need a lot of water fast? Just want to get out the sediment, chlorine, or chloramines out on the quick? How about filtered water delivered at 3 GPM with no waste. Different than a reverse osmosis system, this easy-to-use, fully assembled water filter hooks right to your garden hose and scrubs out the dirt and disinfectants. Great for soil based gardens, protecting beneficials and micro-organisms from the harmful effects of chlorine and chloramine.

Nothing has been overlooked when we created our Chemical Injection Pump Line. We use the finest American-made components, and build them by hand right here in the United States. GrowoniX offers a full line of Chemical Injection Pumps to suit gardens of every size.

FEATURES

- 1GPM-7GPM FLOW RATES.
- OPTIONAL KDF85 ACTIVATED CATALYTIC CARBON FILTER AVAILABLE
- PATENTED ELECTROGALVANIZED BRACKETS.
- OPTIONAL UV FILTER FOR 99.9% BACTERIA AND VIRUS ERADICATION.
- SHIPS FULLY ASSEMBLED.

WHY USE A GROWONIX CHEMICAL INJECTION PUMP

Chlorine, Chloramine and Chloride are but a few of the chemicals added to municipal water sources to kill harmful bacteria in our drinking water. This chlorine in low doses may not harm humans, but will kill beneficial bacteria and micro organisms essential for healthy plant growth. The GrowoniX line of Chemical Injection Pumps will eliminate 95% of the chlorine in the water, and 90% of the sediment.

Chloramine, a mix of chlorine and ammonia, used as a disinfectant, is being applied more and more to local water supplies because of its inability to evaporate when left exposed to the air. Chloramine will not evaporate. To eliminate chloramine, a special KDF85 filter is required for the GrowoniX line of scrubbers which we, or your local dealer can supply. Ask for the GrowoniX KDF85 filter.

The GrowoniX line of Chemical Injection Pumps will not lower your parts per million or “ppm”. Only a Reverse Osmosis membrane can eliminate those particles. GrowoniX sells a complete line of Reverse Osmosis water filters from 100 gallons per day all the way up to 2000 gallons per day. You can see our complete product line at www.growonix.com.



GROWONIX CHEMICAL INJECTION PUMP ACCESORIES

ELECTRIC SHUT OFF KIT



An essential add-on to almost any water filter! Shuts down feed water before the water filter. Controls on/off cycling of high pressure booster pumps. The electric shutoff kit consists of a float switch and solenoid valve. Mount the float switch in your water tank or nutrient storage tank. Install the solenoid valve on the front end of your water filter. When the tank level decreases to the desired amount, the float switch opens the solenoid valve, the booster pump (if installed) powers on, and the water

ESOK MSRP \$209.00

UV STERILIZATION



Stainless steel ultraviolet filtration to remove 99.9% of micro-organisms in your water supply. A must for well water treatment, whole house filter

UV-6010 MSRP \$215.00

COCONUT CARBON FILTER— GREEN BLOCK



Green Coco: NFS61 Listed Greencarbon. High flow with a low carbon footprint.

Part #	MSRP	Description
CF-2510-GB	\$16.50	Replacement Carbon for Mini Scrub
CF-2520-GB	\$31.00	Replacement Carbon for Slim Scrub
CF-4510-GB	\$43.00	Replacement Carbon for Lil Boss, Lil Boss
CF-4520-GB	\$88.00	Replacement Carbon for XL Chemical

COCONUT CARBON FILTER— WHITE BLOCK



Economy: High purity coconut shell activated carbon filter. Excellent cost to performance value.

Part #	MSRP	Description
CF-2510-CC	\$12.00	Replacement Carbon for Mini Scrub
CF-2520-CC	\$24.00	Replacement Carbon for Slim Scrub
CF-4510-CC	\$35.00	Replacement Carbon for Lil Boss, Lil Boss
CF-4520-CC	\$79.00	Replacement Carbon for XL Chemical

KDF85/CATALYTIC CARBON FILTER



KDF/CAT. Bacteriostatic media controls growth of microorganism removal, chlorine, chloramine, and scale. Highly reactive catalytic carbon, extremely porous and long lasting.

Part #	MSRP	Description
CF-2510-	\$39.00	Replacement KDF for Mini Scrub
CF-2520-	\$71.00	Replacement KDF for Slim Scrub
CF-4510-	\$89.00	Replacement KDF for Lil Boss, Lil Boss
CF-4520-	\$129.00	Replacement KDF for XL Chemical Injection

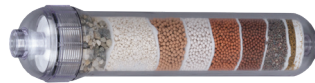
CHEMICAL INJECTION



The Chemical Injection Pump is the ultimate water delivery pump. With a flow rate of 6.5 GPM, the Chemical Injection Pump can move water from one end of the garden to the other in a flash. Integral as a feed pump and return pump for GrowoniX smaller nutrient top feed systems, the Chemical Injection Pump can withstand the most rigorous of duties. Built in high pressure cutoff allows for easy

C.I.P. MSRP \$189.00

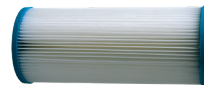
ALKALINE CARTRIDGE



Nine stage filter includes Calcor, negative ion emitting ceramics, and kdf 85. Infuses filtered RO water with minerals and ions, raising the pH to approximately 9.5-10.5—creating mineralized alkaline drinking water.

ALK-INLINE MSRP \$99.00

SEDIMENT PLEATED



High flow pleated Sediment filter: This is a washable, reusable, and durable sediment filter with very low pressure drop.

Part #	MSRP	Description
SF-2510-PL	\$14.50	Replacement filter for: EX100/200/400,
SF-2520-PL	\$20.00	Replacement filter for Slim Scrub
SF-4510-PL	\$30.00	Replacement filter for the GX1000, GX600,
SF-4520-PL	\$56.00	Replacement filter for the EX600-T,

SEDIMENT SPUN



Spun polypropylene: A true multi-staged depth filter utilizing separate layers of micron filtration. Constructed spun polypropylene, these filters offer superior dirt holding capacity at an extremely economic price.

Part #	MSRP	Description
SF-2510-SP	\$10.75	Replacement filter for: EX100/200/400,
SF-2520-SP	\$14.00	Replacement filter for Slim Scrub
SF-4510-SP	\$19.00	Replacement filter for the GX600, GX1000,
SF-4520-SP	\$37.00	Replacement filter for the EX600-T,

SEDIMENT STRING



String wound sediment filter. Amazing dirt holding capacity combined with porous high flow characteristics. The perfect "in-between" filter. Less pressure drop than a spun sediment, with much more dirt capacity than a pleated filter.

Part #	MSRP	Description
SF-4510-ST	\$25.00	Replacement filter for Lil Boss, Lil Boss
SF-4520-ST	\$45.00	Replacement filter for XL Chemical Injection

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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.

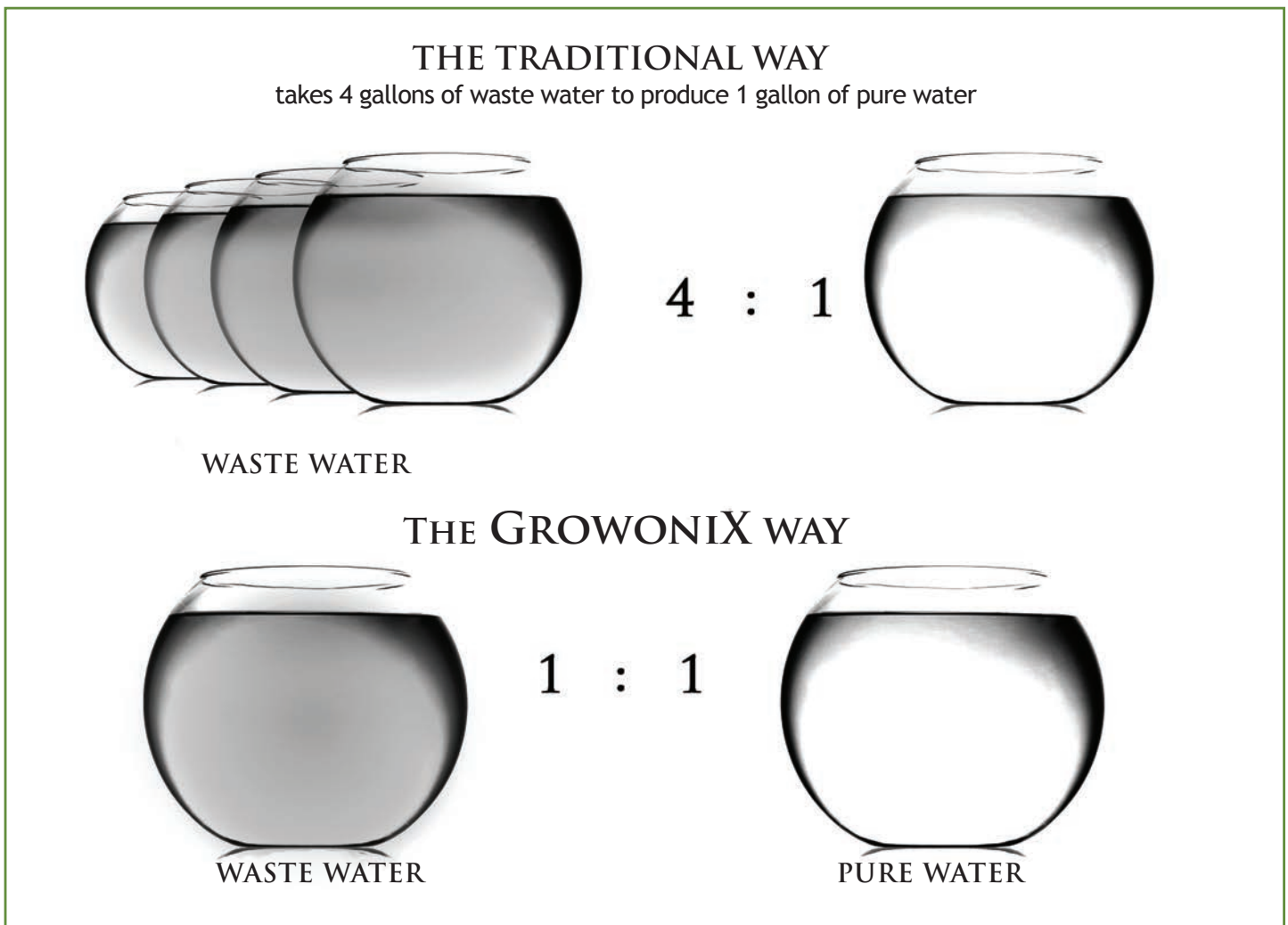
WHAT IS REVERSE OSMOSIS?

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.



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.

INFORMATION ON FLOW RATES

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.

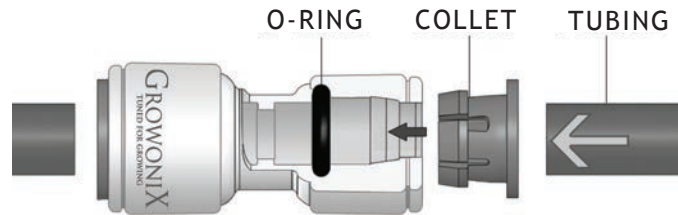


INFORMATION ON QUICK CONNECT FITTINGS

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

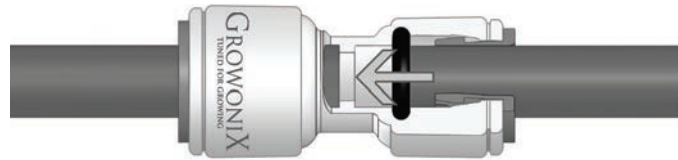
MAKE A CLEAN TUBE CUT

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.



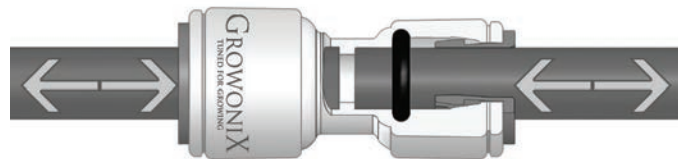
INSERT TUBE INTO FITTING

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.



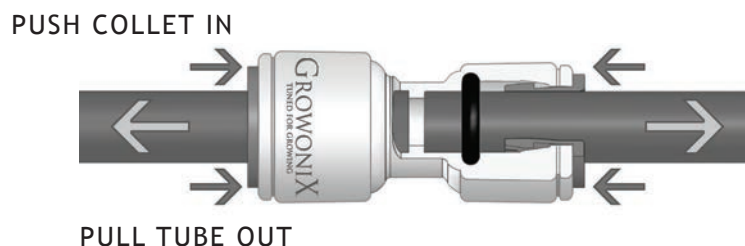
TEST AND INSPECT

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.



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PRECAUTIONS

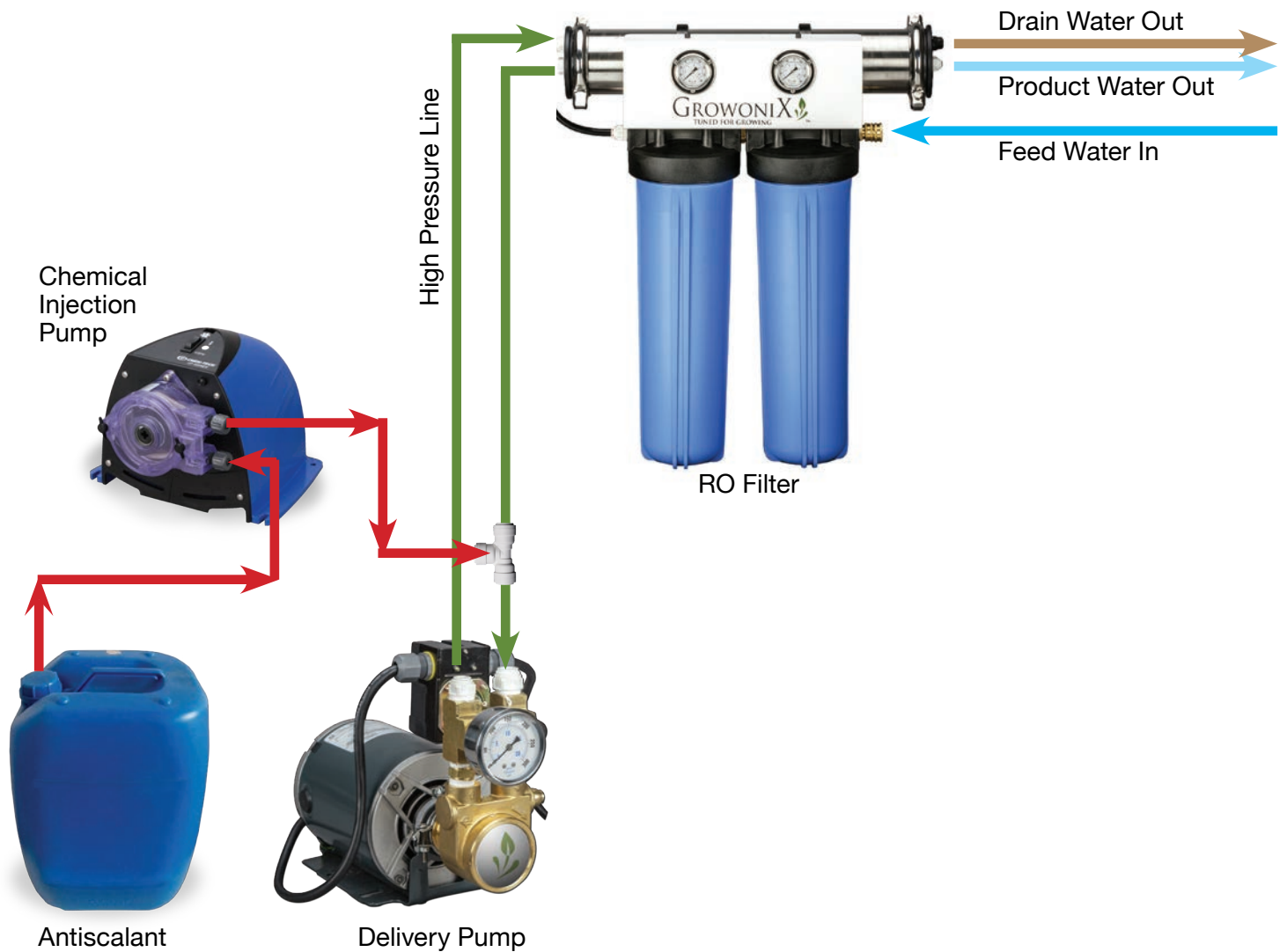
- Do not use unit with inlet water pressure exceeding 80 psi. If inlet water pressure is too high, install water pressure regulator before the unit. Regulators and pressure limiters are available at www.Growonix.com or your local plumbing supply.
- Keep unit away from direct light.
Direct light can cause 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.

PRESSURE GAUGE READINGS

Some Growonix Chemical Injection Pumps come equipped with pressure gauges. The table below displays pressure gauge readings that will assist you in knowing when to change your pre-filters. Pre-filters should be changed when the output pressure gauge reads 30% lower than input pressure gauge (30% pressure differential).

Input Pressure Gauge	Output Pressure Gauge	Pressure Differential
80	56	30%
75	53	30%
70	49	30%
65	45	30%
60	42	30%
55	38	30%
50	35	30%
45	31	30%
40	28	30%

CHEMICAL INJECTION SET-UP



SPECIFICATIONS

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:

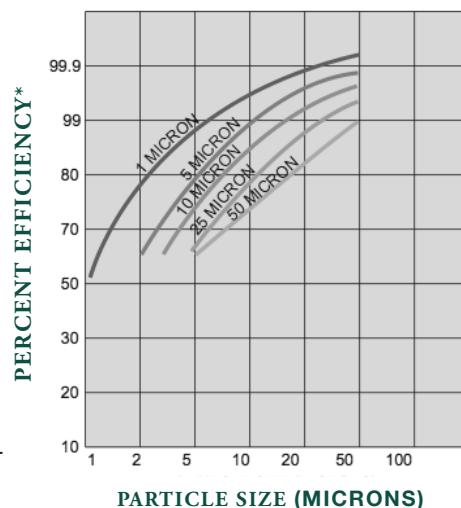
- 2.5" X 9 7/8"

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

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

Filter Housings:

- Housing - Polypropylene
- Cap - Reinforced Polypropylene
- O-Ring - Buna-N
- Maximum Pressure - 80psi



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

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.

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 a GrowoniX warehouse address for return merchandise when we issue the RMA number.

REPLACEMENT PARTS

MEMBRANE INDEX

-  **COCONUT CARBON FILTER— “GREEN BLOCK”**
PREMIUM COCO CARBON, PRODUCED USING ECO-FRIENDLY LOW EMISSIONS PROCESSES
-  **COCONUT CARBON FILTER— ”WHITE BLOCK”**
ECONOMY COCO CARBON, SAME PERFORMANCE AS GREEN BLOCK, FOR A LITTLE LESS MONEY.
-  **KDF85/CATALYTIC ACTIVATED CARBON FILTER**
PREMIUM CARBON FILTER USING THE BEST ACTIVATED CARBON WITH A BED OF KDF85 MEDIA. THERE'S NO BETTER CARBON AVAILABLE.
-  **SEDIMENT SPUN**
SPUN POLY SEDIMENT FILTERS WITH HUGE DIRT HOLDING CAPACITY.
-  **SEDIMENT PLEATED**
HIGH FLOW SEDIMENT FILTERS WITH ULTRA LOW PRESSURE DROP.
-  **GXM INDUSTRIAL MEMBRANES**
HIGHEST FLOWING DOW SHEET MEMBRANES ON THE PLANET, WITH THE LOWEST WASTE RATIO.
-  **GXM HIGH FLOW COLD WATER MEMBRANES**
HIGHEST FLOWING RESIDENTIAL SIZED MEMBRANES. ALWAYS 2:1 RATIO.
-  **ALKALINE INLINE**
INLINE FILTER ADDS CALCIUM & MAGNESIUM TO FILTERED WATER, RAISES THE PH.
-  **ALKALINE CARTRIDGE**
CARTRIDGE ADDS CALCIUM & MAGNESIUM TO FILTERED WATER, RAISES THE PH.
-  **REMINERALIZING INLINE**
INLINE FILTER ADDS CALCIUM & MAGNESIUM TO FILTERED WATER,
-  **REMINERALIZING CARTRIDGE**
CARTRIDGE ADDS CALCIUM & MAGNESIUM TO FILTERED WATER,
-  **UV STERILIZATION**
KILLS 99.9% BACTERIA AND VIRUSES.
-  **DI INLINE**
DE-IONIZATION FILTER REMOVES LAST BIT OF PPM.

NEW GXM-600 & 1000 MEMBRANES!

30% INCREASED FLOW RATE

98.5% REJECTION



GXM-1000HF 1000GPD@60PSI · 2400GPD@180PSI
GXM-600HF 600GPD@60PSI · 1400GPD@180PSI

FLOW RATED AT 65°F WATER TEMPERATURE

PRODUCT	TYPE	MSRP	SYSTEM	NOTES
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SPECIALTY FILTRATION, ACCESSORIES & REPLACEMENTS				
ALK-Inline	Alkaline	99.00	All RO systems	Raises ph, adds cal/mag mineral.
ALK-Cart	Alkaline	99.00	All RO systems	Raises ph, adds cal/mag mineral.
RM-Inline	Re-Mineralize	67.00	All RO systems	Adds cal/mag minerals.
RM-CART	Re-Mineralize	67.00	All RO systems	Adds cal/mag minerals.
DI-Inline	De-Ionization	31.00	All RO systems	Removes remaining TDS after RO (aquarium, lab)
DI-Cart	De-Ionization	34.00	All RO systems	Removes remaining TDS after RO (aquarium, lab)
UV-1530	Ultraviolet	149.00	All RO, Chemical Injection Pump systems, tank storage	Kills 99.9% bacteria
UV-6010	Ultraviolet	215.00	All RO, Chemical Injection Pump systems, tank storage	Kills 99.9% bacteria / viruses
UV-LB	Ultraviolet	443.00	All RO, Chemical Injection Pump systems, tank storage	Kills 99.9% bacteria / viruses

PRODUCT	TYPE	APPLICATION / SYSTEM	MSRP	CAPACITY	NOTES	HYDROLOGIC CROSS
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REPLACEMENTS FOR ALL WATER FILTERS 400 GPD AND UNDER						
SF-2510-PL	Sediment Pleated	EX100/200/400/400-Tall, GX200/300/400, Mini Scrub	14.50	Depends on feed water piping/supply	Stock on GX Series	RO 100/200, Small Boy
SF-2510-SP	Sediment Spun	EX100/200/400/400-Tall, GX200/300/400, Mini Scrub	10.75	Depends on feed water piping/supply	Stock on EX Series	RO 100/200, Small Boy
CF-2510-CC	Economy Coco Carbon	EX100/200/400/400-Tall, GX200/300/400, Mini Scrub	12.00	7,500 Gallons Total 2,500 Gallons RO Water	Stock on EX Series	RO 100/200, Small Boy
CF-2510-GB	Green Carbon	EX100/200/400/400-Tall, GX200/300/400, Mini Scrub	16.50	7,500 Gallons Total 2,500 Gallons RO Water	Stock on GX Series	RO 100/200, Small Boy
CF-2510-KDF	Premium Carbon	EX100/200/400/400-Tall, GX200/300/400, Mini Scrub	39.00	8,000 Gallons Total 2,700 Gallons RO Water	Must for well water and chloramine removal	RO 100/200, Small Boy
GXM-100	Standard Membrane	100+ GPD membrane for EX100	83.00	Depends on feed water quality	Fits most other RO systems	RO 100/200
GXM-200-HF	High Flow Cold Water Membrane	200+ GPD High Flow Cold Water Membrane for EX100/200/400/400-Tall, GX200/300/400	99.00	Depends on feed water quality	Fits most other RO systems	RO 100/200
BP-1530	Booster Pump	Booster pump for all RO systems 600 GPD and under.	227.00	12,000 Hrs brush life	Booster pump for all RO systems 600 GPD and under	RO 100/200

REPLACEMENTS FOR EX400HF-TALL AND SLIMSCRUB						
SF-2520-SP	Sediment Spun	EX400-tall, Slim Scrub	10.75	Depends on feed water piping/supply		Tall Boy
CF-2520-CC	Economy Coco Carbon	EX400-tall, Slim Scrub	24.00	16,000 Gallons Total 5,300 Gallons RO Water		Tall Boy
CF-2520-KDF	Premium Carbon	EX400-tall, Slim Scrub	71.00	17,000 Gallons Total 5,700 Gallons RO Water	Must for well water and chloramine removal	Tall Boy
CF-4520-KDF	Premium Carbon	EX600/1000-Tall, XL Scrub	127.00	34,000 Gallons Total 17,000 Gallons RO	Must for well water and chloramine removal	Big Boy