



REVERSE OSMOSIS WATER PURIFICATION SYSTEM

MODEL: GRO-300

Technical specification of 300 GPD (45 LPH) RO water purifier



Fifth stage Reverse Osmosis Water Purification System designed for where feed water has very low water pressure or where the source water contains higher than normal amounts of dissolved solids.



RO Offers safe, good-tasting water at your fingertips

RO system provides safe, pure water using Reverse Osmosis Technology. It is one of the finest units in its class. It's capable of removing over 95% of total dissolved solids, +99% of all organics and +99% of all bacteria.

This system hides away under your sink and puts healthy great-tasting water at your fingertips. It meets all your water quality needs. Our RO comes complete with an NSF certified 11 gallons water storage tank and all the necessary fittings, installation kits, extra color tubing, and a long-reach chrome faucet. We don't know of any other system at our price that can approach its performance.



Basic information

Capacity	:	300 GPD (45 Liter Per Hour (LPH))
Model No	:	GRO-300
Filtration Stage	:	Five
Technology	:	Reverse Osmosis (RO)
Brand Name	:	Heron

Filtration Process:



First Stage: Sediment Filter

Sediment Filter	:	1 Pc
MOC of Filter	:	100% Polypropylene Fiber
Length of Filter	:	20 Inch
Diameter of Filter	:	2.5 Inch
Brand name of Filter	:	Heron
Country of origin of Filter	:	Taiwan
Size of Filter Housing	:	20 Inch
Color of Housing	:	Blue

The Sediment filter cartridge is manufactured from pure 100% polypropylene fibers. The fibers have been carefully spun together to form a true gradient density from outer to inner surfaces. It is effective in removing dust, mud, rust and sand particles.



Second Stage: Granular Activated Carbon Filter

Granular Activated Carbon Filter	:	1 Pc
MOC of Filter	:	100% Coconut Shell, (Granular Type)
Length of Filter	:	20 Inch
Diameter of Filter	:	2.5 Inch
Brand name of Filter	:	Heron
Country of origin of Filter	:	Taiwan
Size of Filter Housing	:	20 Inch
Color of Housing	:	Blue

This granular activated carbon filter is composed of high-performance activated carbon that effectively reduces unwanted tastes, odor, organic contaminants, chlorine, pesticides and chemicals that contributed to taste and odor. It is designed to allow maximum contact between the water and carbon, ensuring maximum adsorption.

Third Stage: Activated Block Carbon Filter

- Activated Block Carbon Filter : 1 Pc
- MOC of Filter : 100% Coconut Shell, (Block Type)
- Length of Filter : 20 Inch
- Diameter of Filter : 2.5 Inch
- Brand name of Filter : Heron
- Country of origin of Filter : Taiwan
- Size of Filter Housing : 20 Inch
- Color of Housing : Blue

This block carbon filter is composed of high-performance Coconut Shell carbon using a patented process and made entirely from FDA-compliant materials that highly effective at reducing 17 hazardous metals: such as lead, radon, mercury, insecticides, odor and chlorine: taste & odor, from potable drinking water. The unique structure of the carbon block enables it to reduce Giardia, Cryptosporidium, amoeba, and Toxoplasma cysts and fine sediment particles down to 0.5 microns. It is an ideal choice for a wide range of residential, food service, commercial and industrial applications.

Fourth Stage: Reverse Osmosis (RO) Filter

- Reverse Osmosis (RO) Membrane : 3 PCs
- Brand Name of RO Membrane : Lan Shan / Heron / Premium quality
- Membrane Type : Thin-Film Composite
- Membrane Materials : Polyamide (PA)
- Element Configuration : Spiral-Wound

Reverse Osmosis utilizes the unique properties of a semi-permeable membrane to allow fluid to pass while restricting the flow of dissolved ionic material.

With pressure applied to impure water on the side of such membrane materials, pure water will pass through, leaving most of the impurities behind. The rejection of the dissolved ionic material is a function of both molecular weight and ionic charge. For example, we can expect a nominal 90% rejection of sodium chloride, which means that the product water passing through the membrane will have a concentration of salt approximately one-tenth that of the feed water. The rejection of calcium carbonate (hardness) will be near 95%, while most metallic salts will be rejected at a rate of approximately 98% to 99%.

The rejection of non-ionic or organic material is primarily by mechanical filtration. Most substances with a molecular weight of over 100 will be completely rejected by an intact reverse osmosis membrane. Low molecular weight organics, such as formaldehyde or phenol, can pass freely through an R.O. membrane, as can most dissolved gasses.

Contaminants	Average Percent Reduction
Arsenic	99.99
Barium	98.90
Cadmium	99.60
Chromium (Hexavalent)	99.99
Chromium (Trivalent)	97.00
Copper	99.0
Cysts	100
Turbidity	98.50
Fluoride	97.9
Lead	99.99
Perchlorate	96.5
Total Hardness	100
Selenium	92
TDS	97

Oil, suspended solids and particulate matter are mechanically filtered, as are viruses, bacteria, pyrogen, and larger organic molecules.

To carry the rejected material away from the membrane surface, the feed side of the R.O. membrane is continually flushed with an excess flow, usually two to five times the product flow. This avoids clogging of the membrane surface and reduces the tendency toward scale formation.

Fifth Stage: Taste and odor Filter

Post Carbon Filter	:	1 Pc
Filter Materials	:	Activated Carbon
Maximum Pressure	:	125 PSI
Type of Filter	:	Inline
Maximum Temperature	:	100. F

This granular activated carbon filter is composed of high-performance activated carbon that effectively reduces unwanted tastes, odor, organic contaminants, chlorine, pesticides and chemicals that contributed to taste and odor. It is designed to allow maximum contact between the water and carbon, ensuring maximum adsorption. We are using NSF approved post carbon to guarantee the taste of water.

Booster pump

Quantity	:	1 Pc
Brand Name	:	Dertin / Deng Yuan / Premium quality
Maximum Pressure	:	130 PSI
Maximum Temperature	:	100. F

Pure water reserve tank

Quantity	:	1 Pc
MOC	:	Steel Powder Coated
Tank Capacity	:	11 G
Water Reserve Capacity	:	Tank
Air Contain	:	Min 30%



THINK GREEN, SAVE GREEN
FOR GREENER TOMORROW