



## REVERSE OSMOSIS SYSTEM

**SWT's MetalsMaster Reverse Osmosis System** is specially designed for areas with water supplies contaminated by heavy metals and high TDS. It combines reverse osmosis technology with oxidation/carbon filtration to bring up to 50 gallons per day of bottled water quality to the faucet at a fraction of the cost.



*The MetalsMaster provides up to 50 gallons of clear, refreshing water that is not only healthy to drink, but good for cooking and for use in appliances such as steam irons, humidifiers, ice makers, and car batteries.*

### FEATURES INCLUDE:

- A 5 micron sediment trap to remove particulate matter such as silt, sand, turbidity, and sludge from water.
- A specially designed carbon block pre-filter that has been blended with an oxidation media to trap particulates of metals such as lead and copper. It also removes, or greatly reduces, most of the chemical compounds that the EPA has deemed as health hazards in drinking water. This stage greatly extends the life of the membrane on high TDS water.
- A reverse osmosis membrane which treats the pre-filtered water on a molecular level, filtering out 93% to 99+% of dissolved solids such as salt, nitrates, lead, fluoride, and arsenic. It also filters out organisms such as cryptosporidium and giardia.
- A second carbon filter is used to polish the RO water just prior to the faucet.
- Deluxe long reach faucet
- Large water reservoir
- All hardware necessary for installation

# METALSMaster PERFORMANCE SPECIFICATIONS

With proper installation and maintenance the RO membrane module in the SWT MetalsMaster Reverse Osmosis System will reject the following substances from tap water:

Arsenic	94-96%
Barium	96-98%
Bicarbonate	95-96%
Boron	60-70%
Bromide	93-96%
Cadmium	96-98%
Calcium	94-97%
Chloride	87-95%
Copper	98-99%
Cyanide	86-95%
Fluoride	94-96%
Hardness	95-98%
Iron	95-98%
Lead	96-98%
Magnesium	96-98%
Manganese	98-99%
Mercury	96-98%
Nickel	98-99%
Nitrate	90-96%
Phosphate	96-99%
Potassium	87-97%
Pyrogen	98-99%
Selenium	96-98%
Silica	85-90%
Silicate	95-97%
Silver	95-97%
Sodium	87-98%
Strontium	96-98%
Sulfate	98-99%
Zinc	98-99%

...plus more. The RO membrane module will also aid in the removal of color, asbestos, and cysts such as giardia and cryptosporidium.

Contact your SWT representative for more details.

The MetalsMaster Reverse Osmosis System features a special 1 micron metal reduction pre-filter. By adding a special heavy metal reduction filter cartridge to our RO systems, and pre-filtering the water to 1 micron, SWT is able to reduce the amount of contaminants that reach the RO membrane. This allows the membrane to stay cleaner, be more effective, and last longer, especially when treating water with lead, iron, or other dissolved metals.

Carbon filtration has long been recognized by the EPA as the best method for removing over 50 substances from water that have been deemed potential carcinogens (see list below). SWT's RO Systems feature the newest in carbon block technology, allowing 5 times more carbon area contact than standard GAC cartridges.

Adipates(diethylhexyl)	Chromium (+3)	Endrin	PCB's
Alachlor	Chrysene (PAH)	Ethylbenzene	Sediment
Aldicarb	Dalapon	Ethylene dibromide(EDB)	Simazine
Aldicarb sulfone	Di (2-ethylhexyl) adipate	Glyphosate	Styrene
Aldicarb sulfoxide	Dibenz (a,h) anthracene	Heptachlor	3,7,8-TCDD (dioxin)
Atrazine	Dibromochloropropane	Heptachlor epoxide	2,4-D
Benz (a) anthracene (PAH)	Dichlorobenzene (meta-)	Hextachlorobenzene	2,4,5-TP (silvex)
Benzene	Dichlorobenzene (ortho)	Hextachlorocyclopentadiene	TCB's
Benzo (a) pyrene (PAH)	Dichlorobenzene (para-)	Indo (1,2,3-c,d) pyrene (PAH)	TCE's
Benzo (b) floranthene (PAH)	Dichloroethane (1,2-)	Lidane	Tetrachloroethylene
Benzo (k) floranthene (PAH)	Dichloroethylene (1,1-)	Mercury (organic complexes)	Thallium
Beryllium	Dichloroethylene (cis-1,2-)	Methoxychlor	THM's
Butyl benzyl phthalate (PAE)	Dichloroethylene (trans-1,2)	Monochlorobenzene	Toluene
Cadmium	Dichloropropane	Organic color	Toxaphene
Carbofuran	Diethylhexyl phthalate (PAE)	Organics	Vinyl chloride
Carbon tetrachloride	Dinoseb	Oxymal	Xylenes
Chlordane	Diquat	Pentachlorophenol	
Chlorine	Endothall	Picloram	

The above chemicals usually come from pesticides, farm and industrial run-off, and chemicals permeating through soil into ground water, aquifers, or rivers. Most municipal water supplies in the US constantly monitor for these substances and advise their customers accordingly. For further information, check with your local water supplier, the EPA, and your local water treatment professional.

## GENERAL INSTALLATION AND SERVICE PARAMETERS

The SWT MetalsMaster RO System will work at peak efficiency on either municipal or ground water supplies that do not exceed the following:

Maximum psi	..... 125 lbs
TDS	..... 1800 ppm
Iron	..... 0.4 ppm
Hardness	..... 17 gr/gal
H2SO	..... 0.05 ppm
Manganese	..... 0.1 ppm

The MetalsMaster has been designed to give many years of trouble free service. To keep the system operating in

peak efficiency, it is recommended that the unit be inspected every 6 months for possible pre-filter sediment clogging (especially if there is a lot of sediment in your water supply). Manufacturer recommends that the system be serviced on an annual basis to replace the carbon filtration modules and the RO membrane module.\*

\* The RO membrane module may last for a much longer period of time on relatively good water. Check with your water treatment professional for local water characteristics and testing.

All Safe Water Technologies' components and systems are made in the USA. All housings, cartridges, membranes, faucets, and tubing used in SWT reverse osmosis systems are NSF listed. No consumer water supply that has known contamination should be assumed *safe* simply with the addition of water treatment equipment. Although RO technology has proven to be effective in almost all instances, SWT strongly urges that water samples be re-tested after installation to assure proper installation and performance of the water treatment equipment.