

## TROUBLESHOOTING REVERSE OSMOSIS MEMBRANES

### **LOWER WATER PRODUCTION**

1) Membrane has become encrusted with Lime scale.

a) EC mineral content is too high or very hard water.

I. Over 1,0 EC is high mineral content. Recommended to use larger flow restrictor\*

II. Over 500 mg/l is hard water. Recommended to use larger flow restrictor\*

III. Install water softener before RO unit.

\* For more information read the RO Membrane Information Document.

b) Too low of rejection water to the drain.

I. Flow restrictor is clogged. Clean flow restrictor.

II. Flow restrictor is too small. Use larger flow restrictor.

III. Drain is clogged, no open flow to drain. Clean drain.

2) Not enough inlet pressure.

a) Below 40 psi (3 kg/cm<sup>2</sup>) is low water pressure for RO.

I. Install RO Booster Pump

II. Install Pressure Pump from source water

3) Pre-filters are clogged with sediment.

a) Not enough water flow or pressure getting to the membrane.

I. Replace Sediment filter and /or Carbon Block Filter\*

\* Read "When to Replace your Carbon Block Filter" document.

### **LOWER WATER QUALITY**

1) Membrane has failed due to Chlorine saturation.

a) RO membranes do not tolerate chlorine.

I. Replace Carbon Block Filter

II. Read "When to Replace your Carbon Block Filter" document.

- 2) "BY-PASS" occurring inside of the membrane housing.
  - a) Inlet water is not passing thru the membrane.
    - I. Check the membrane is tight fit inside the housing.
    - II. Check the black O-Rings inside the housing.
    - III. Check no compression damage to the membrane.  
(can be due to high pressure spikes)
  
- 3) Not enough inlet pressure.
  - a) Below 40 psi (3 kg/cm<sup>2</sup>) is low water pressure for RO.  
Higher EC requires more pressure to function correctly.  
If EC is over 0,8 you will need at least 60psi (4,3 kg/cm<sup>2</sup>)  
If EC is over 1,2 you will need at least 80 psi (5,5 kg/cm<sup>2</sup>)
    - I. Install RO Booster Pump
    - II. Install Pressure Pump from source water
  
- 4) Bacteria or Microorganisms in the wáter supply.
  - a) Well water can contain bacteria, mircoorganisms, iron, etc.  
These contaminants can "foul" the Ro membrane.  
RO membranes should not be installed with water that is  
Microbiologically unsafe.
    - I. Chlorinate the well water (then dechlorinate with Carbon Block)
    - II. Install a UV Lamp before the RO system.

REMEMBER – GOOD MAINTENANCE IS VERY IMPORTANT.  
PREFILTERS ARE THERE TO PROTECT YOUR RO MEMBRANE(S) AND MUST BE REPLACED  
IN A TIMELY MANNER.