

# MAPLE R.O. SYSTEM MANUAL

## START-UP

Open the concentrate pressure valve to decrease the operating pressure to approximate 50 - 70 psi for about 2 minutes. If this is a start up after an off-season storage, hopefully a thorough cleaning and flush has been done to avoid any build up in the system. Opening the concentrate pressure valve will allow the air to escape from the system and clean off any sugar build-up.

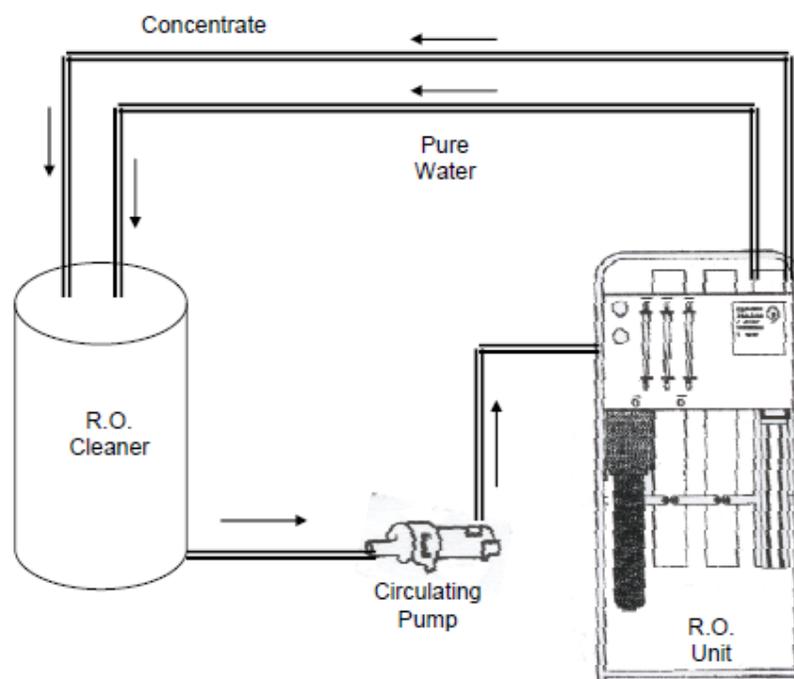
## PRE-FILTERS

If your pre-filters are clogged, you'll notice the booster pump will make a loud noise — this is because it is being restricted. How often you change your pre-filters depends on the amount of dirt/silt in your sap. Usually the first pre-filter is changed more frequently.

When doing a filter change, use the concentrate pressure knob to let air out (this is called “burping” the unit). Once all the air has been let out, you can put the operating pressure back up.

## MONITORING SUGAR LEVELS

We suggest regularly checking the sugar levels of the concentrate and reject using a TDS meter. When the TDS of the concentrate is double or greater than that of the reject, the batch is ready for boiling



# CLEANING INSTRUCTIONS

1. Disconnect the sap supply line from the unit and connect the circulating pump discharge line to the inlet. Minimum 30 psi is required.
2. Run pure RO water through system to remove most of the sugar build up. (**Note:** Warmer water will more easily rinse the sugar away.)
3. Disconnect the concentrate line and reject line and reroute these lines into the RO water container — this will create a closed loop.
4. Open the concentrate valve to reduce the overall operating pressure to approx. 50 psi. to remove any restriction across the membranes.
5. Turn on the circulating pump and R.O. unit. The feed pressure should be a minimum of 30 psi. (**Note:** The unit may sound different because you have reduced the operating pressure.)
6. Once the cleaning process is underway, you may notice the RO water start to become discoloured — this is normal, however if you notice extreme discolouration happening quickly, turn off the unit and circulating pump, dump the solution, and add a new batch of RO water (step 2).
7. Run the second batch of RO water (if required) repeat **step 5** and run the unit for 10-15 minutes.
8. Disconnect the circulating pump and reconnect the sap feed line to the unit. Reconnect the concentrate line and reject line.

# STORAGE INSTRUCTIONS

## SYSTEM STORAGE

At the end of the season, it is important to flush your system with pure water, discard pre-filters, and make sure filter housings are free of any sugar. The booster pump *does not* like sugar as it solidifies and can seize the impellers. Be sure to thoroughly rinse the whole unit to ensure no sugar is left behind.

## MEMBRANE STORAGE

Your membrane can last 5+ years with proper care. At the end of the season, membranes should be stored in a food grade storage solution, such as citric acid, in an air-tight container to prevent bacteria growth. The S.S. RO membrane vessel can used for storage. Do not store membranes in extreme weather conditions such as heat in the summer or below freezing in the winter.

**Note:** Storage solution must be flushed and neutralized with R.O. water prior to starting the system for the new season.

### FOR ANY QUESTIONS CONTACT US:

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