



# Operation procedures

## 81050 Mini Hobby RO

**Read user manual completely before using your reverse osmosis.**

### Concentration procedure

- 1) Close all drain valves from V2 to V4.
- 2) **Install strainer housing at pressure feed pump inlet.**
- 3) **Install prefilter housing. It is recommended to use a fresh cartridge for maple sap process. Tighten drain cap under filter housing.**
- 4) Open wide concentration control valve V1.
- 5) **Connect RO to 110 power outlet.**
- 6) Insert blue suction line into maple sap tank.
- 7) Insert permeate and concentrate hose in their respective tanks.
- 8) Start reverse osmosis with the interruptor. Verify if water goes to the pump after few seconds, if not, stop the pump.
- 9) Gradually close **V1 concentration valve** until complete closure of the valve. **Take a minimum of 10 seconds for closing the valve to gradually increase pressure in the system. Closing too fast could damage the system.**
- 10) Periodically monitor operating parameters.
- 11) Once concentration **process is final, gradually lower pressure by opening** concentration valve and stop reverse osmosis.

**\*Warning, it is not recommended to run RO until sap runs out. Feed pumps may be damaged when running dry**

**\*concentration of maple sap at higher level than 8 brix is not recommended.**

### Unsugaring procedure

- 1) Insert RO feed and permeate hose in the permeate tank, concentrate hose remains in the concentrate tank.
- 2) Start RO to begin unsugaring of the system (See step 8 of concentration cycle).
- 3) Take concentrate samples at regular intervals until sugar concentration is at 0.5 brix.
- 4) Stop RO

### Rinsing procedure

- 1) Insert RO feed hose in permeate tank. Insert permeate and concentrate hose to drain.
- 2) Start RO (See step 8 of concentration cycle). A minimum of 80 gal US/300L of filtrate must be use.
- 3) Stop the RO **when minimum water quantity has been used.**

### Wash procedure

- 1) Replace filter cartridge by a unit that will be only dedicated to wash procedure.
- 2) Insert concentrate and permeate hoses in a 5 US gallons bucket.
- 3) Fill **bucket with permeate ideally heated at 40°C** and add the necessary amount of soap. **Follow manufacturer recommendation.**
- 4) Start RO (See step 8 of concentration cycle).
- 5) Leave RO running for 30 minutes.
- 6) Stop RO and rinse.

## Shutdown procedure

- 1) Loosen drain cap from filter housing. Remove filter cartridge from housing.
- 2) Open all drain and concentration valves from V1 to V4.
- 3) Disconnect suction hose and drain water out of it.
- 4) Unfasten and drain strainer housing at pressure pump inlet. Leave it off.
- 5) Start RO for **2 seconds**. **This operation will allow to flush residual water from the pump.**
- 6) Repeat step 5 twice at 10 seconds intervals.
- 7) Disconnect electrical plug.

## Operating cycles

