

Cleaning Between Batches. End of Season Cleaning and Next Season Start-up

Cleaning After Use

After you process a batch of sap flush the membrane(s) with 25-50 gallons of RO water. That is all you need to do. If more than 2 days go by without processing the next batch you can flush with an additional 25-50 gallons before processing the next batch although I generally have not done this and I haven't had any difficulty with membrane life.

At the end of the season it is good practice to clean the membranes with a cleaning solution, then rinse them and store them in a preservative solution until next season.

Cleaning

The cleaning solution used is actually a strong NaOH (sodium hydroxide or lye) solution. Food grade sodium hydroxide is available on Amazon or eBay quite inexpensively. It is EXTREMELY corrosive. You must use gloves, protective clothing and eye protection while using it.

Use a 15 gallon plastic tub to mix the sodium hydroxide. Add ½ cup of NaOH to 10 gallons of hot water. Place the intake hose from the lower pressure pump and both discharge hoses in the plastic tub. Start the low pressure pump, then the high pressure pump with the gate valve at the exit of your last membrane wide open. Re-circulate the cleaning solution for 10 minutes, then shut off the pumps and let sit for 10 minutes. Repeat these steps for 3 cycles. Rinse the membranes with 50-100 gallons of RO water or fresh water.

Preservative

The preservative is food grade Sodium Metabisulfite. This is a common preservative used in wine and beer making. It is the solution used in the air locks on wine carboys. You will need 2 gallons of solution for each membrane you are storing. Add ¼ cup of sodium metabisulfite to 2 gallons of RO water or fresh water. Place the clean membrane in the PVC storage container you have made. Pour the sodium metabisulfite solution into the tube with the membrane until full. Screw on the cap. Store the cylinder in a cool place where it will not freeze.

Season Start-Up

Remove the membrane(s) from the storage container and dump out the preservative solution. Assemble the RO unit. Flush 100 gallons of clean water through the unit. It is ready for use.