

(2) RO cleaning method and long term shut down

RO cleaning method

[1] RO cleaning chemicals

KURIDINE M-301

NaOH

Citric acid

[2] Cleaning method

Unload the RO membranes from the equipment (Unloading method is explained later) and clean them in the RO cleaning device.

The cleaning device is automated. It repeats circulation and stop every 30min eternally. Cleaning time with the RO membranes loaded should be 6-12 hours. Drain the water following cleaning and then circulate fresh water free from CL2 (city water mixed with SBS).

Drain water sufficiently (30min) after cleaning the RO membranes and put them in vinyl bags for storage.

[3] Procedure

- 3-1. Put the dirty RO membranes in the cleaning device.
- 3-2. Fill up cleaning device with fresh water not containing CL2.
(About 40L per cleaning tube).
- 3-3. Pour KURIDINE M-301 2L each into the cleaning tube.
(4L if 2 cleaning tube).
- 3-4. Put 20g of NaOH (100% powder) into each cleaning tube.
(40g if 2 cleaning tube).
- 3-5. Close the lid of the cleaning tube and push the start button.
- 3-6. Turn on the pump for 30min and then stop if for 30min. Repeat this for 6-12 hours.
- 3-7. Push the stop button. (after 6Hrs or 12Hrs) Open the lid of the cleaning tube and look at the inside. Liquid is very dirty.
- 3-8. Drain the Liquid and fully pour fresh water free from CL2.
- 3-9. Put 80g of citric acid into each cleaning tube.

- 3-10. Close the lid and push the start button of the cleaning device. Clean the RO membranes for 1-3 hours.
- 3-11. Push the stop button of the cleaning device and then drain the liquid.
- 3-12. Fill the cleaning tube with fresh water and circulate it to drive away the chemical solution of CL2 free.
- 3-13. Pull out the RO membranes and place them upright to drain water and then put them in vinyl bags for storage.

[4] Long time storage

If the RO membrane is stored for a long time, put 80g of SBS into each cleaning tube as described above (step 3-11) and circulate it for 30min. Then pull out the RO membrane, drain water and put it in a vinyl bag. The bag is recommended to be thermally sealed.