

## Guidelines for the Use of New Elements (UltraPro® S-1801)

### 1. Installation

Remove the element from the packing and ensure that the element has not been damaged during transportation. Drain the element from the preserving solution into a suitable container or drain. Lightly rinse the element with dechlorinated water to remove any foreign material and the preserving solution. Introduce the element into a suitable housing in the direction of the arrow on the element. In case you cannot see the arrow, introduce the element with the side without a brine seal first. Take special care when handling the surfaces near the o-rings contact points. Damage to this area may adversely affect the performance of the element.

### 2. Removal of preserving solution.

Operate the system with soft/demineralized/RO water with a recirculation flow of 13 L/min, 48 L/min for 2540, 4040 elements, respectively at a pressure setting of 2 bar (30 psi) for about 30 minutes directing the feed and permeate to drain. Make sure there is no leakage from any of the connection points. Correct as required.

### 3. Clean water flux measurement and standard compound test

The objectives of the clean water flux measurement and standard compound test are:

- a. Final check of the installation and review of connections to ensure there is no leakage.
- b. Confirm that the membrane was installed correctly and performing within acceptable parameters.

To measure the clean water flux:

- a. Fill the feed tank with enough soft/demineralized/RO water.
- b. Recirculate the water at the required recirculation flow of 13 L/min, 48 L/min for 2540, 4040 elements, respectively at a pressure of 2 bar (30 psi) and a temperature of 30°C (86°F) taking care of directing the retentate and permeate to the feed tank. Take a measurement of the permeate flow after 60 minutes and compare to the data sheet specs.

Note: Avoid a sudden increase of pressure and flowrate when first operating the element. Gradually adjust the pressure and flowrate to the specified conditions. In this way, any residual air will be removed from the element avoiding an air hammer.