

Permeate Valve Operation

At no time during any phase of operation should the permeate valve be closed. This includes pre-start up filling and flushing, post-shut down rinsing, cleaning and standard operation. Closing the permeate valve during these phases of operation results in a pressure differential across the tail end of the system which can damage the glue line and/or membrane surface integrity. This damage is irreversible and will result in increased salt passage.

Concentrate Valve Operation

Once all of the air has been purged from the system the feed pressure can be increased gradually. Please verify with the membrane manufacturer, but typically pressurization of the membrane elements should not exceed 10psi per second.

Cleaning:

During the cleaning of the membranes, the concentrate valve should be in the fully open position. A fully open concentrate valve optimizes velocity across the membrane surface and therefore increases cleaning efficiency. Please reference Technical Bulletin 503 for more information regarding cleaning.

Start-up:

Following cleaning, soaking, storage or during the first start-up, the concentrate valve should be in the fully open position. This valve should be moved to the closed position to obtain the recommended system recovery but never closed completely.

DO NOT START THE SYSTEM WITH THE CONCENTRATE VALVE CLOSED AND THEN ADJUST THE VALVE OPEN TO OBTAIN THE RECOMMENDED RECOVERY.

Chemical Mixing

Mixing of the cleaning chemicals should be completed in a well ventilated area and in a contained storage tank. The chemicals should be fully mixed prior to introduction into the membrane system. All of Professional Water Technologies, Inc. cleaning chemicals are buffered and do not require any further pH adjustment.

Dilution of scale inhibitors should be completed in a separate tank prior to use with the dosing pump. If dilution of the antiscalant is to be completed in the day tank while the system is online, please contact Professional Water Technologies to set up a dilution schedule based on tank levels.