



P-SERIES and E-SERIES PRE-CLEANING RECOMMENDATIONS

Before the initial use of our P-Series and E-Series membrane elements, we recommend cleaning the elements with a standard CIP protocol. If you do not have a CIP protocol in place, we recommend the following procedure to wet out, pre-clean and sanitize our elements.

1. Flush @45°C and standard operating pressure for 20 minutes (concentrate and permeate to drain).
2. Caustic wash @pH 10.0-10.5 and 45°C for 30 minutes.
3. Drain the system and flush again for 20 minutes @45°C.
4. Caustic and chlorine (180-190 ppm) wash @pH 10.0-10.5 and 45°C for 30 minutes.
NOTE: Always add caustic before the adding the chlorine solution. Adding chlorine to solutions with low pH (<10) will damage the membrane and reduce element life.
5. Drain the system and flush the elements for 1 hour @45°C.

CLEANING WATER USED SHOULD ALWAYS BE REVERSE OSMOSIS PERMEATE WATER. THE WATER QUALITY SHOULD FALL WITHIN THESE LIMITATIONS:

Conductivity	≤ 5 microSiemens/cm
Turbidity	≤ 1 NTU
Hardness	≤ 30 ppm
Particle size	≤ 10 micron
Iron (Fe)	≤ 0.05 ppm
Manganese	≤ 0.02 ppm
Silicate (SiO ₂)	≤ 5 ppm

Osmonics believes the information above are accurate. However, these are only recommendations and should be treated as that. Osmonics offer no guarantee since the conditions and methods of use are beyond our control. We assume no liability to the process.

