



FEED WATER REQUIREMENTS

1. The city water supply line to the R.O. should be at least a 1 inch pipe to a 1 inch city approved Reduced Pressure backflow device with a 1 inch female pipe thread. In many cities, the RP device is mandatory.
2. The minimum water pressure to the R.O. after the pretreatment (including the RP device), should be 40 PSI. The city supply should be able to supply 40 PSI at the flow rate of the R.O. pump. If not, a booster pump will be needed. The maximum operating pressure is 90 PSI.
3. The water temperature should be between 55 and 90 degrees Fahrenheit. As the water temperature drops, the product flow is reduced by approximately 1.5% per degree drop in temperature. The R.O. is supplied with a dial thermometer to verify water temperature. The optimum water temperature for all R.O. membranes is 77 degrees F. In climates where the water gets cold in the winter, a temperature blending valve and water heater will be necessary. **DO NOT EXCEED 100 DEGREES FERENHEIT FOR PROLONGED PERIODS.**
4. The inlet to the R.O. systems must be less than 1 grain of hardness to prevent calcium deposits from damaging the membranes. In most cases, a water softener is required.
5. The inlet water to the R.O. system must also contain less than .1 PPM of total chlorine. Carbon must be used to remove the chlorine, to protect most types of R.O. membranes. If CA, CTA or Polysulfone membranes are used, do not exceed 5 PPM. Carbon filtration will still be necessary post R.O. to protect the patients. The R.O. system may be supplied with one or more 20" carbon filter housings for the removal of free chlorine. If your system is not equipped with carbon filter housings, carbon tanks must be used. If chloramines are present in the water supply, a minimum of 3 minutes of Empty Bed Contact Time is required. Secondary tanks are also recommended (mandatory in California).
6. For the removal of suspended particles in the feed water, we suggest 1-micron, 20' long filter elements or an automatic backwash sediment filter directly after the RP device and booster pump. The 1-micron filter housing assembly(s) is provided with the R.O. system. The filtration method must be determined after consulting with the city water company supplying the dialysis unit with water. We must know the condition of the water during the worst time of the year to adequately design the pre-treatment.
7. The Ph of the feed water can be between 4 and 11.