

Element loading guidelines provide recommendations to ensure proper and safe installation of NanoH<sub>2</sub>O Qfx™ membrane elements in reverse osmosis (RO) system pressure vessels.

### System Flushing

Prior to loading the membrane elements, new systems should be thoroughly flushed with pretreated feedwater to ensure the absence of construction debris, solvents, chlorine or other contaminants that may be harmful to the elements.

### Pressure Vessel Preparation

The interior walls of the pressure vessels must be thoroughly cleaned prior to loading membrane elements in order to prevent dust, construction debris or other foreign matter from being deposited onto the membrane surface during start-up. Simply hosing down the interior of the vessels with freshwater is NOT adequate to clean the vessels thoroughly. NanoH<sub>2</sub>O recommends the use of a sponge ball wrapped in a cloth or towel that has been soaked in a 50% solution of glycerin and water. The cleaning ball may either be pulled through the vessel when attached to a rope or pushed through the vessel when mounted to a PVC flange affixed to an appropriate length of PVC pipe. Use appropriate **CAUTION** to ensure that the inside surface of the vessel is not scratched or damaged during cleaning.

### Membrane Element Storage

Qfx elements should be maintained in their original shipping packaging and stored in accordance with “Receipt of Elements and Short-Term Storage - TB 101” guidelines (page 3).

## CAUTION

*DO NOT use oil, grease, petroleum jelly or other petroleum-based compounds to lubricate O-rings or brine seals. Food-grade glycerin may be used for O-ring and brine seal lubrication either directly or in a water-based solution. Approved lubricants for interconnector O-rings, end adapter O-rings or membrane element brine seals include glycerin, silicon-based Molykote III, or other silicone-based lubricants that do not contain hydrocarbons. Contact Technical Support at NanoH<sub>2</sub>O for further assistance.*

Notice: The use of this product in and of itself does not necessarily guarantee the removal of cysts and pathogens from water. Effective cyst and pathogen reduction is dependent on the complete system design and on the operation and maintenance of the system.

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