REVERSE OSMOSIS FLUSH KIT

One of the performance characteristics of Reverse Osmosis (RO) systems is their ability to reduce Total Dissolved Solids (TDS) from feed water. TDS is a measure of dissolved ions in water. Higher TDS readings indicate more dissolved minerals are present in the water.

The flush kit allows users to reduce the effects of TDS Creep, also known as Salt Diffusion. TDS creep, a phenomenon that occurs with all RO systems, causes a rise in product water TDS when RO systems are not in use. This rise in TDS occurs because concentrated water rests on the reject side of the membrane element while low mineral content water rests on the product water side of the membrane element. When no pressure is applied to the membrane element, these concentrations will slowly tend to reach equilibrium through the natural processes of diffusion and osmosis. As a result, rejection at system start-up is often less than the true capabilities of the RO system. A flush kit allows installers to lessen TDS creep, resulting in better quality water when the system is used after periods of inactivity.

A flush kit includes an RO storage tank, a base to hold the tank upright, tubing, and a tank valve fitting. The tubing and tank are connected to the light blue 1/4-inch elbow connections. A series of check valves within the unit's manifold automatically redirects product water into the tank before shut-down. The pressurized tank then forces the product water across the membranes, flushing the high TDS concentrate water to drain. The system flush occurs after each demand for product water. For proper operation, the tank should hold an air precharge of 8 to 10 psi.

An 8 liter tank is the recommended size for installations with feed water containing 750 mg/L TDS or less. Installations with inlet water containing more than 750 mg/L TDS may require a larger flush tank. Larger tanks will create a more complete system flush and therefore will allow less TDS passage.

The flush kit is recommended for applications where a spike of TDS at system start-up is not desirable. It is a great way to maintain a high water quality. For more information on salt diffusion and flush kit operation, please contact your distributor.