



FILMTEC Membranes

Loading of Pressure Vessels: Installing an Element Spacer

Installing an Element Spacer

In some instances it is desirable to reduce the amount of water that a membrane system produces. In large systems, this is often done by turning off banks of elements. In other systems the feed pressure is reduced, but reducing the feed pressure will lower the overall water quality. Therefore, it may be necessary to remove the lead elements from a system and install element spacers instead.

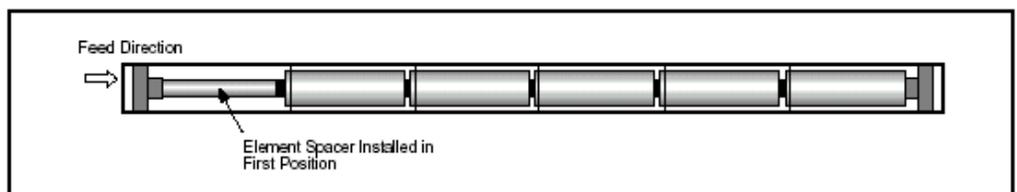
An element spacer, also called a "dead man," is simply a standard product water tube without permeate holes. Proper installation is critical to both performance and safety. Only one element spacer can be installed per pressure vessel, and it must always be installed in the first or lead element position. If placed in any other position it may crack or break due to the force being put on the product water tube.

To install the spacer:

1. Remove the first or lead position element.
2. Remove and inspect the adapter and first interconnector, making certain that the o-rings are not rolled, compression set (flat on one side), or otherwise damaged. Replace the o-rings if necessary.
3. Insert the interconnector in the spacer and push the spacer/interconnector into the second position element.
4. Insert the adapter and then replace the pressure vessel head. It may be helpful to only partially insert the interconnector and adapter to leave room to line up the parts. Alternately, a guide stick can be inserted through the permeate port on the vessel head to hold the spacer in line while the parts are pushed together.

Figure 4.4 shows an element spacer properly installed in a pressure vessel.

Figure 4.4 Element spacer properly installed in a pressure vessel



FILMTEC™ Membranes
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