

MB-4: MEMBRANE REPLACEMENT

Before removing a membrane (FT-MB-xx) do a fresh water flush to purge any sea water in the system. This way you can seal the old membrane in a bag and use it as a spare if needed. See the label on the membrane housing for flow direction and brine seal location. The black membrane housings manufactured by Spectra have a retaining ring on each end that holds the end cap in place. On the outside of the ring is a machined groove or 3 dimples indexed 120 degrees apart. Use the appropriate spanner wrench or a piece of wood or plastic and a mallet on the groove/dimple and tap counterclockwise to knock the ring loose and then unthread by hand. The end caps can be backed out as the ring comes off, or the fittings can be removed from the end caps and the end caps removed afterwards.

If you wish to remove only one end cap, remove the endcap at the INLET (BRINE SEAL) end. Use a pair of needle nose pliers to pull on the plastic "anti telescoping device" which supports the product tube, to pull the membrane out. The anti-telescoping device looks something like a wheel with the product tube as its axle. Be careful not to scratch the 3/4inch diameter product tube.

Standard end caps will have 2 or 3 o-rings. There is one large O-ring (SO-HPV-BMS) on the outside of the plug and 1 or 2 smaller ones (depending on the age and design of the end cap) (SO-HPV-SMS) on the inside of the product port. Inspect them and replace if needed. In most cases they can be reused. You must remove the end cap to inspect the o-rings. End caps used with the optional Z-brane, or more recently manufactured end caps, may have only one O-ring for the product tube.

If it has been removed, refit the end cap on the outlet end. The membrane has a black brine (lip) seal on one end. Insert the new membrane into the housing so that the brine seal goes in last. Take care not to damage the brine seal, it sometimes wants to catch on the housing and get twisted. Install the second end cap and any fittings that have been removed. Some silicone grease or water on the o-rings and brine seal will make assembly easier.

Remember to purge the system UNPRESSURIZED for 20 minutes before making water to flush the storage chemical out of the new membranes.

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