

SF-3 EXTEND SHURFLO SERVICE LIFE

The original Spectra Watermakers were designed to make 200 gallons per day and were equipped with a single Shurflo feed pump. Some of these watermakers have now been operated for over 2000 hours using the original feed pump. In response to customer demand for a watermaker that could make water faster, we began producing the Model 380C and the Cape Horn Extreme, which are basically the same watermaker with two feed pumps. The water maker can be operated in "RUN HIGH" and "RUN LOW" modes. In high mode both pumps run, while in low mode only one pump runs. Due to the higher operating pressures required for this increased production, the feed pumps were redesigned with the strongest internal parts available for diaphragm pumps. However, Shurflo pumps will still give a longer service life if operated at lower pressures.

Symptoms of worn pump heads include reduced production, lower than normal feed pressure, and increased salinity. The pump motors are not affected by service pressure and will last far longer than the pump heads in high pressure service

By taking advantage of some characteristics of the system, you can help extend the life of the pump heads. When operated on one pump the system pressures are much lower than they are on two pumps. Also, pump output and system efficiency are increased when the pumps are run at the 14 Volts available when the engine is running or solar or wind are keeping the voltage up, versus 12V when running off the batteries only.

For example, if you need to make 30 gallons of water you will have to run on one pump for 4 hours or 2 pumps for 2 hours. If the solar can provide 10 amps, you can run on one pump at higher voltage for 4 hours, or two pumps at reduced voltage for 2 hours. In this case, running on one pump will give you better energy management and longer pump life. Or, when running the engine for a period long enough that the tanks will top off before you shut down, make it a practice to run the system on one pump.

One pump operation has an even greater effect on pump life in cold waters where system pressures are naturally higher than in the tropics. Another factor that shortens pump head life is high temperatures. Owner's who leave their boats in storage in very hot climates report that all the rubber diaphragm pumps on board, including the watermaker pumps, are severely affected by the intense heat inside the closed up boat.

The 12 volt Shurflo pump with motor is part no. KIT-FP-SF12, the 24 volt pumps are KIT-FP-SF24. Pump heads are the same for either voltage: p/n PL-PMP-SFPH.

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