

MPC-2 SYSTEM STALLED, ROTOFLOW

This technical bulletin is for systems built with a rotoflow sensor. Systems manufactured prior to December 1, 2004 have a stroke sensor installed and should follow consult the bulletin "MPC-1 System Stalled – Stroke Sensor". "System Stalled" means there is no product water flowing through the product tube, or the turbine in the flow sensor is stuck. Because the Clark Pump is powered by water pressure from the feed pump, this can be due to a lack of feed water pressure. Failure to cycle can also be due to a malfunction inside the Clark Pump. If the Clark Pump is not cycling and the system is equipped with the MPC controls it will try to start three times, displaying: RE-STARTING, and then alarm SYSTEM STALLED.

1. Determine whether the Clark pump is actually shifting or not. If the Clark pump is not shifting go to "2", below. If the Clark pump is shifting, but the MPCalarms "System Stalled" confirm that there is product flowing out of the product water tube AND that the rotoflow meter is spinning. The rotoflow is located on the product water line between the membrane end cap and the diversion valve. It is made of a clear plastic with a brown/black turbine inside. Shine a flashlight at the side of the sensor while the system is running, and watch to see if the turbine pulses when the Clark Pump shifts. If the sensor is turning and you still get System Stalled, the problem is in the MPCboard itself or the sensor wiring. Open the MPC box and look at the Printed circuit board. Next to the telephone style jacks there is an 8 pin connector marked "STROKE SENSORS FLOW METER SEA STRAINER". Make sure the connections are tight and the plug is firmly in place. Try moving the sensor wiring from "STROKE SENSOR" to "FLOW METER" or vice versa. Red wire goes to "P," Green goes to "S," Black goes to "G."

2. Confirm that the feed pump is running. **If the pump is not running** check to make sure there is power to the pump. **AC units have two power sources – AC for the pump and DC for the automated controls.** Newer systems have motor speed controllers. These controllers have overheat protection. If the pump runs for a while then stops for no apparent reason the controller may have overheated: See MPC-9 SYSTEM STALLED OVERHEAT

3. **If the pump is running** confirm that water is flowing through the system. Check the flow at the brine overboard. If water is flowing through the system but the Clark pump is not cycling there is a Clark Pump malfunction: perform the CP5 Clark Pump Checkout Tests

2. **If the motor runs but no water flows** the feed pump may have an air lock or a failed coupling/rotor shaft (vane pumps only). To clear an air lock, do a fresh water flush by pushing and holding the AUTO STORE button for five seconds. The Clark pump should cycle during the flush. If the Clark pump cycles during the flush, but won't cycle when the feed pump is running, the feed pump and/or drive coupling may have failed. See VP-1 Vane Pump Drive failed of SF-1 Pump Won't Run.

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