

Solution Level Control Maintenance

The water level in my tank is either too shallow or overflowing onto the floor. Why isn't this solution level control working properly?

The most common solution level control is the 3-ball, multi level float switch. The way it works is that a series of 3 balls float on the surface of the water and activate switches within the rod that activate a solenoid, based on the location of the balls as they rise and lower along the float's rod.

Some things can interfere with the free travel of the floating balls.

1. Foam- This can give the balls a false impression the true water level height. This will do one of two things.
 - The balls will think there is more water in the tank than there really is because the balls will rise to the level of the foam. This will enable the unit to continue to operate with too little solution. When this happens,:
 - The heaters heat solution that is not adequate and therefore put stress on the submersible electric element or within the walls of the gas heat immersion tube. When there is stress, then there will be cracking and failure. In the case of the gas heat immersion tube, this would be considered catastrophic because of the difficulty in reaching the crack to weld a repair patch.
 - When too little water is in the tank, then the pump will starve and cavitate and eventually heat up and seize due to running dry.
2. Sludge from the water surface can gum up the smooth travel of the float balls along the rod. This will cause the balls to catch and stick, which could result in the same problems described above.
 - In addition, to those listed above, the balls could give the impression there is less water in the tank than there really is and therefore, cause the unit to overflow onto the floor.

To clean the assembly

1. Remove the connecting chord
2. Unscrew the 3-ball float at the square base (not at the compression nut)
3. Use a good cleaning chemistry and clear all debris from the shaft.
***DO NOT DISSASSEMBLE! There are no grooves in the main shaft that would allow you to relocate the balls correct position. The balls are either normally closed or normally opened and can be mixed up. ***
4. After cleaning, replace float and hand tighten the square base.
5. There is no need to reset anything else as long as the compression nut was not moved.

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Because Crown is here to help I hope this helps get you up and running.
I do however realize not every problem can be solved online.
Please don't hesitate to call or email me for further assistance.
Crown is here to help.

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