

## Peristaltic Pumps Trouble Shooting

| Problem  | Possible Causes  | Solution  | Comments  |
|--|--|---|---|
| <b>1. Pump Heats Up</b>  | <b>1.a.</b> The pump is overworked   | Choose a larger pump,   |   |
|  |  | Decrease the pump duty  |   |
| <b>2. Pump Stops Working</b>   | <b>2.a.</b> Injector is blocked  | Check and Clean the Injectors   | Monthly for Hypo and biocide pumps<br>Each 3 month for acid and inhibitor pumps   |
|  | <b>2.b.</b> The duty of pump is too low  | Watch the pump for 2 minutes. If it works for short periods of time, the pump may be OK   | Example: If the pump is 1 lit/hr and you want to inject 50 ml/hr then the pump will work only 3sec per each minute.   |
|  | <b>2.c.</b> There is no electricity current in the pump  | Check the relay:<br>If relay is off, no problem with the pump<br>If the relay is on, it must be a triac problem from controller | To check the triac, swap the pumps' power lead and watch the pump performance. The faulty pump won't work when relay is on.<br>The triac* problem can be solved by repairing the panel (X_PAN or new Panel) |
|  | <b>2.d.</b> The Pump is electrically burnt   | The burnt pump should be exchanged  | This should be confirmed by an electrician  |
| <b>3. Pump Rattles inside</b>  | Starting capacitor inside the housing is Loose   | This is not a problem   | The pump rattles only if it is shaken.<br>Don't shake the pump!   |
| <b>4. Rotor not moving</b>   | <b>4.a.</b> Low Pump Duty  | See to Solution for 2.b.  | This problem originates from Blocked Injector which causes back pressures on the pump and relocates the gear shafts   |
|  | <b>4.b.</b> Blocked Injector   | See to Solution for 2.a.  |   |
|  | <b>4.c.</b> Stripped Gear  | Pumps needs to be exchanged   |   |
| <b>5. The Squeeze tube is damaged frequently</b>   | <b>5.a.</b> The squeeze tube is not installed properly or it is relocated  | Change the Squeeze tube and make sure it is fitted properly   |   |
|  | <b>5.b.</b> Roller Block is Damaged  | Change the Roller Block   |   |
|  | <b>5.c.</b> Rollers of the Roller Block are stuck  | Add lubricant to rollers.   |   |
| <b>6. Pump makes squeaky noise</b>   | The roller block contacts the cover  | Add some grease or lubricant under the cover  |   |
| <b>7. Pump makes grinding noise</b>  | -high back pressure on the shaft<br>-pump over working<br>-relocated gear shaft<br>-not adequate gears<br>Contact          | Give 15-30 minutes rest to the pump. If the problem persists change the pump  |   |
| <b>8. Pump's continually running</b>   | Pumps is too small   | Choose a bigger pump  |   |
|  | Setting is wrong   | Check and adjust the setting (if needed)  |   |
|  | The triac is damaged (How to check: look at the comments)  | Controller panel needs to be repaired to replace the triac  | To make sure it is a triac problem, swap the pumps' power lead and compare the pump performances when relay is on/off.<br>The triac problem can be resolved by repairing the panel (X_PAN or new Panel)     |
| <b>9. pump is heating up and emits an electrical buzzing sound despite the relay being off</b> | Partial voltage from the triac into the pump, not sufficient to run the pump but enough to emit a sound and heat the motor | Controller panel needs to be repaired to replace the triac  | To make sure it is a triac problem, swap the pumps' power leads and check if the problem persists with the new pump.  |

\* The all traics of Aquarius new Panels and X\_PANS have been reinforced and equipped with mode device for double protection. Please report the other problems.