

RBC SERVICES UPDATE

RBC Services
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RBC STORAGE PROCEDURES

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THE FOLLOWING PROCEDURES ARE THOSE RECOMMENDED BY RBC SERVICE TO ENSURE PROPER PROTECTION OF RBC EQUIPMENT WHILE IN A STORAGE MODE

- 1.) The RBC media should be cleaned of biomass prior to taking the units off line. Shut off the flow to the RBC basin. At each unit, introduce chlorine along the length of the unit as evenly as possible. Only a minimal residual is required. Allow the RBC to rotate in this solution for up to 2 weeks or until it becomes evident the biomass has sloughed and the biology which remains is only a film.
- 2.) While the water remains in the basin at normal operating level with the RBC rotating, lubricate all main shaft bearings, following full purge procedures (complete exchange of grease) and **FOR MECHANICAL DRIVE**, lubricate all motor and reducer shaft seals.
- 3.) Begin draining the basin of water. As this is being done, shut off the power to the RBC. At the power source, tag and lock out the switches to the RBC motors. **FOR AIR DRIVE**, if the blower supplies air to other unit processes, replace the expansion joint at the RBC with a blind flange. This will prevent any air loss.
- 4.) **FOR MECHANICAL DRIVE**, remove the belt guard, clean and store indoors. Adjust the motor swing plate to relieve tension on the drive belts and apply a dressing.
- 5.) **FOR MECHANICAL CHAIN DRIVE**, adjust the drive package toward the RBC to relieve tension on the chain. At this time, you may want to remove the oil in the chain case, and add fresh oil upon re-start.
- 6.) **FOR MECHANICAL DRIVE**, remove the reducer breather assembly, clean and store indoors. Fill the reducer completely with recommended lubricant and replace the breather with a plug.
- 7.) Apply a coating of grease to the bearing journals and the bearings. This will protect the surfaces from moisture and dust. This should be done on both ends.
- 8.) **FOR MECHANICAL DRIVE**, at this point, the RBC should be turned 90 degrees, by hand, and locked into position. (A spray of paint at the quadrant points will serve as reference.) A wood wedge between the belts and sheave will do. This will help drain water from the media and begin a proper balancing procedure. (A crank can be applied to accomplish this. An example is shown on the reverse side.)
- 9.) Once the RBC has been placed in a storage mode, the basin should be cleaned of any accumulated solids and miscellaneous debris.

10.) FOR AIR DRIVE, coat the expansion joint with vaseline to prevent drying out or cracking and check the condition of the air diffusers, making sure the integrity of the caps is in tact and that they are properly seated. If the blower has been taken off line, follow the storage procedures as recommended by the manufacturer.

NOTE: FOR MECHANICAL DRIVE, the RBC should be turned, by hand, 90 degrees, once per week for 4 weeks. After that period, the procedure should be followed once per month, changing final positions each month.

The balancing procedure will alleviate any deformation of the bearing rollers and will help maintain balance for the entire unit.

The balancing procedure is done by hand to prevent undue stress caused by the start-up torque of the drive system on the media. Rotation of an RBC under power in an empty tank will eventually jeopardize the integrity of the media and media support structure.

As always, should you ever have any questions regarding any procedures prescribed in our UPDATE Series, please do not hesitate to give me a call.