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STAT Spin Centrifuges-RO

Document Type: Procedure

I. PURPOSE AND OBJECTIVE:

The Stat Spin centrifuge is a microprocessor-controlled, high speed bench top centrifuge designed to rapidly separate blood in original evacuated or syringe type collection tubes. The system produces good quality plasma/serum from whole blood in a three-minute spin. Acceleration and dynamic braking are extremely fast to reduce waiting time. The centrifuge operates at a fixed speed of 7200 rpm, producing centrifugal force of 4440 x g at the maximum tube radius of 7.65 cm. Three factory-set timed cycles may be selected by the operator. The "Normal Cycle" is a 3 minute cycle that is used for all stat Coagulation specimens.

II. PROCEDURE:

A. **OPENING STAT SPIN:** The Stat Spin centrifuge incorporates an electrically-operated lock mechanism that prevents the centrifuge from being operated unless the cover is completely closed and latched. It also prevents the cover from being opened while the rotor is turning. It is also equipped with a manually-operated external latch which continues to hold the cover down after spinning is complete and the electric lock has released.

1. When the cover is completely closed, it is locked shut and can only be released when the "stop/open" button is pushed.
2. The cover is automatically released at the end of the operating cycle. It can also be released by pushing the "stop/open" button. The cover can then be opened by squeezing the black pieces together and lifting the lid.
3. **Releasing the Automatic Lock Manually:**
 - a. In the event of a power failure, etc., wait for the rotor to come to a complete stop.
 - b. Unplug the power supply from the electrical circuit.
 - c. Insert the straightened end of a large paper clip into the small hole above the "set" button.
 - d. Manually push the lock lever inward.

NOTE: Do not attempt to defeat the safety features of the centrifuge!

4. Two or eight tubes may be loaded at one time. Do not spin glass tubes. Use the same size and style tubes in opposite positions. Balance liquid in tubes to within 0.5 mL.

NOTE: When processing an odd number of tubes (1 or 7), place a balance tube with equal

weight opposite the odd tube.

5. Close the lid tightly.
6. Verify that the controlled spin cycle is set to "Normal Cycle" (3 min). To change the cycle, press the "Select" button until the LED next to the desired cycle is illuminated.
7. Press "Start" to initiate the cycle. The cycle will stop automatically and the cover will not open until the rotor comes to a complete stop.
8. At the completion of the cycle, the latch interlock automatically unlocks.
9. Squeeze the latch against the handle and lift the cover to open.

NOTE: Do not attempt to open the cover before the rotor has decelerated to a complete stop!

10. Carefully remove the tubes so as not to re-suspend the sediment.

B. **Quality Control:** Refer to Equipment Quality Control procedure

C. **System Malfunction Codes:** Error codes for the Express are specified by a combination of the "Error/Service" LED flashing and 1, 2 or 3 LED's on the front panel illuminating.

1. "Quick Spin" LED illuminated - Rotor failed to reach rpm within 30 seconds.
2. "Normal" LED illuminated - Cover was opened or cycle challenged during operation.
3. "Hard Spin" LED illuminated - Insufficient power to maintain rpm and/or use of incorrect rotor.
4. "Quick Spin" LED and "Hard Spin" LED both illuminated - Rotor spun backward direction during reverse braking.
5. To reset the instrument from an error message mode, depress the "Stop/Open" button.

D. **Maintenance:** The Stat Spin centrifuge, with normal use, should not require disinfecting. If, however, the device becomes contaminated with blood:

1. Open centrifuge cover.
2. Unplug the power supply from electrical outlet.
3. Remove all tubes and inserts from the rotor.
4. Clean with 10% bleach solution.
5. Call Facility Management (248-55-16300) to place a service call.

E. **Rotor Disinfection:**

1. Open the centrifuge cover.
2. Unplug the power supply from electrical outlet.
3. Remove all tubes and inserts from the rotor. If a tube has cracked, carefully remove the insert containing the broken tube and dispose of the insert in a biohazard sharps box.

NOTE: Do not attempt to clean the insert if a tube has broken within the insert. Glass fragments embedded in the insert material will cause subsequent tube breakage. Replace with a new insert.

4. Call Facility Management (248-55-16300) to place a service call.

III. REFERENCES:

- A. StatSpin Express 2 Operator's Manual, 2001, StatSpin Inc., Iris Division, Norwood, MA 02062.

Attachments

No Attachments

Approval Signatures

Step Description	Approver	Date
CP Chief Medical Director	Peter Millward: Chief, Pathology Service Line	5/13/2021
Coagulation Medical Director Designee	Marc Smith: System Med Dir, Coagulation	5/13/2021
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