

## Risk Assessment Form

<b>Procedure</b>	Use of Tube Rotator (Stuart SB3)
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<b>Name(s) of person performing the work</b>	Users (Lab manager & Lab Technician & Tenants & Licensee's)		
<b>Name &amp; position of assessor</b>	Khwaja Islam & Laboratory Manager	<b>Signature</b>	
<b>Date of assessment</b>	06/09/2018	<b>RA Number</b>	BioE 0023

### Outline of procedure / activity:

The tube rotator SB3 is located in the cold room (696.10.25) and SB3 rotators comprise of a motor unit fitted to a stable base with a swivel facility to tilt the angle of the unit from a vertical to a horizontal position. The rotator can be locked at any angle by a side hand wheel. SB3: Speed of rotation is variable between 2 and 40rpm, an adjustable digital timer automatically stops rotation after the set time (1 to 9999 minutes, 1 second to 90 minutes or 1 minute to 9 hours).

There are three types of tube holder available giving end-over-end mixing:

- SB3/1: Holds up to 46 x 1.5ml microcentrifuge tubes. This one we have in house.
- SB3/2: Holds up to 20 x test-tubes or blood tubes with a diameter from 9mm to 20mm.
- SB3/3: Holds up to 12 x 50ml centrifuge tubes

There are three racks designed for gentle rotational mixing of culture tubes:

- SB3/4: Holds up to 63 x 12mm diameter tubes.
- SB3/5: Holds up to 63 x 16mm diameter tubes.
- SB3/6: Holds up to 30 x 26mm diameter tubes.

This equipment is designed to operate under the following conditions:

- ❖ For indoor use only
- ❖ Use in a well ventilated area
- ❖ Ambient temperature range +4°C to +60°C
- ❖ Altitude to 2000m ❖ Relative humidity not exceeding 80% #
- ❖ Mains supply fluctuations not exceeding 10%
- ❖ Overvoltage category II IEC60364-4-443
- ❖ Pollution degree 2 IEC664

Operation:

1. Load the tube holder ensuring it is evenly balanced.
2. Switch the unit ON by pressing the control knob.
3. The red display will show present set speed (red dot in the display shows RPM is selected).

4. This can be adjusted by turning the control knob.
5. Once the correct speed is displayed press the start / stop button to begin rotating.
6. Rotation can be halted at any time by pressing the start / stop button.
7. In order to use the timer, halt rotation and press the mode button.
8. The red dot on the display moves over to TIME. Select the desired count down time using the control knob.
9. When the display shows the correct time in minutes, press the start / stop button to begin rotation.
10. During operation, rotation can be paused at any time by pressing the start / stop button. If this button is pressed again, rotation will start again and the timer will continue to count down.
11. When the timer reaches zero, rotation will be automatically halted and an audible alert will sound.
12. To switch the Rotator OFF completely, press the control knob in.
13. In order to save a commonly used speed / time value, switch the unit ON by pressing the control knob in (see fig 2) and select both a speed value Figure 3 3 (2 to 40rpm) and a time value (either 1 to 999 minutes, 1 second to 90 minutes or 1 minute to 9 hours) to 999 minutes),, or continuous - - -) using the instruction given above.
14. Then switch the unit OFF by pressing in the control knob. Wait 5 seconds and switch the unit back ON by pressing the control knob in. The inputted values are now saved in the memory. They can be altered at any time by following the same procedure.
15. The unit timer is defaulted to minutes only (1 to 9999 minutes). To change to minutes and hours (1 minute to 9 hours, H is displayed in the left digit of the timer display), or to change to seconds and minutes (1 second to 90 minutes) turn the unit off using the control knob then switch the mains power off at the plug.
16. Hold down both the start/stop button and the mode button whilst simultaneously switching the mains power back on. The display will temporarily show 88:88 then OFF. Using the control knob turn the unit on, the display will show nn:ss for minutes and seconds, H:nn for hours and minutes and nn for minutes, turn the control knob to select the desired timer unit and turn the unit off by the control knob, OFF will be displayed. When the unit is next used the timer will have been altered to the set unit.

#### Cleaning:

Periodically clean the instrument using a damp cloth and mild detergent solution. Do not use harsh or abrasive cleaning agents.

Operator must be trained in operating tube rotator to guarantee safe daily use. Untrained Personnel are not be allowed to operate the tube rotator. User must always ensure that power cable is in good condition, no wires exposed.

#### Safety precautions:

- The unit should be carried using both hands with fingers under each side frame.
- DO NOT position the product so that it is difficult to access the ON/OFF switch.
- DO NOT position the product so that it is difficult to disconnect it from the mains supply using the mains plug.
- The mains outlet socket used should be located close to the equipment and readily identifiable and accessible to users.
- In the case of power interruption, a fault or mechanical failure, the unit will continue to operate on removal of fault.
- NEVER move or carry the unit with containers on the top or while still connected to the power supply.
- NEVER stop the rotation by hand and **ALWAYS** ensure that the rotator disc is evenly balanced with



tubes.

- Mechanical energy can lead to breakage of glass vessels. Use with care.
- ALWAYS ensure there is sufficient free space around the rotator so that it does not come into contact with anything during use.
- DO NOT mix combustible liquids or use the equipment in hazardous atmospheres.

### Potential hazards

Substance or item handled	Associated Hazard (s)	Existing Control Measures	Risk (L/M/H)	Further Action required	Risk (L/M/H)
Use of tube rotator.	Electrical hazard - Electrical shock – danger of death.	Only switch on the device if the device and power cable are undamaged. Only trained personal are allowed to use the machine. Incubator is earthed, protective earth connection for the machine is provided using 13A plug fitted to the machine (RCD protected). Make sure it has been PAT tested. Regular visual checks of power cords for fault, fraying or wear and regular electrical safety check. Any faults reported and repaired before use.	L	No further action required if the existing control measures are adhere to.	L
Biological samples	Biohazard	Wear proper PPE; gown (lab coat and gloves and safety specs). Users will have a risk assessment / SOP in place before work begins.	L	No further action required if the existing control measures are adhere to.	L

**Persons potentially at risk:**

Only the user or others near by

**Action in event of an accident or emergency:**

1. **Fire:** raise the fire alarm and evacuate the area.

**Arrangements for monitoring effectiveness of control:**

Daily inspection of equipment by lab technician.

Annual preventative maintenance carried by external contractor.

Instruction and training given to all operators which is reviewed annually.

Existing operators receive annual refresher training.

Annual pat testing by external contractor.

**Arrangements for monitoring effectiveness of control:  
Review of the Risk Assessment:**

Date of review		Name of reviewer	
Date of next review		Signature	

Have the control measures been effective in controlling the risk?

Yes	No
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Have there been any changes in the procedure or in the information available which affect the estimated level of risk from the listed substances

Yes	No
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What changes to the control measures are required?



**Declaration by Tenants/Licensee/Technician:**

I confirm that I have read this Risk Assessment and that I understand the hazards and risks involved and will follow all of the safety procedures stated. Where PPE has been identified as a control measure, I will ensure that it is worn.

**Declaration by Laboratory Manager (LM):**

I confirm that the tenant/licensee/technician who has signed below is competent to undertake the work. My counter-signature indicates that I am happy for the work to proceed.

Name (Please print)	Signature	LM Countersignature	Date



Name (Please print)	Signature	LM Countersignature	Date