

Standard Operating Procedure

SOP196

Title: Use and Maintenance of Block Heaters

Location: CBE laboratories.

1. PURPOSE

The intent of this SOP is to describe the use and maintenance of the Block Heaters within the CBE laboratories.

2. SCOPE

The scope of this SOP is to outline the use and maintenance of the Block heaters. There are two models of block heaters within the CBE; GrantBD2 and Grant QBA2.

The block heaters are used to heat samples at a predetermined temperature for varying periods of time. The temperature of the heat block can be varied depending on the users needs.

3. References

1. Operating Instruction Manual
2. SOP003; Disposal of Biological Waste
3. SOP038; Biological Spill Response
4. SOP037; Use of personal protective equipment.

4. Special Notes: Health & Safety

1. Always wear appropriate PPE when working with the block heater.
2. Do not place hands and fingers in the block heater when in use.
3. When in use a sign should be used to notify other lab users that the heat block is on.

5. RESPONSIBILITIES

CBE Laboratory Users

- All users who operate the heat block are responsible for the proper operation of the instrument as outlined in this document and the operating manual.
- The responsible person shall coordinate the scheduling of service and preventative maintenance with authorized service representatives.
- All users who operate the heat block are responsible for reporting any leakages/spillages of material to the laboratory manager and/or area safety advisor. Or if there are any faults with the heat block.

6. EQUIPMENT AND MATERIALS

Version 001

Effective Date: 27/07/21

Review 27/07/23

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| Written by: J.Bowdrey | Reviewed by: | Approved by: C.Kavanagh |
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- Heat block

7. PROCEDURE

7.1 Operation

Note; New users should refer to the manual for the heat block they are going to use, as the operation of each heat block is slightly different.

1. Turn the heat block on at the wall, and then on using the ON button.
2. If the block needs to be switched with another one, please use the tool provided for this
3. The GrantQBA2 heat block has a dial which is used to alter the temperature, the GrantQBD2 heat block the S button needs to be pressed, then the temperature can be altered. Press S again to enter in the new temperature value.
4. Leave the heat block to warm up to the desired temperature.
5. Leave a sign for other lab users, to notify them that the heat block is on.
6. To put samples into the heat block, make sure that Eppendorf's do not have more than 1.ml of liquid within them. Make sure they are properly sealed and use tweezers to put the Eppendorf tubes in and to remove them from the heat block.

7.2 Spill Response

If a spillage or leakage occurs into the heat block the user must refer to the procedure for confined biological spillage described in SOP038: Biological spill response.

If contamination is identified whilst the water bath is operational, disconnect the water bath from the mains. **Adopt the following procedure**

1. Put on clean disposable gloves. Face protection maybe required.
2. Turn off the heat block
3. Move the heat block to the BSC
4. Carefully retrieve any damaged/leaking tubes with forceps or other mechanical means and place in a sharps container or an orange biohazard bag.
5. Unbroken, sealed tubes maybe recovered and wiped down with 1%virkon solution.
6. Once cooled, remove the blocks from the heater and soak in 1%virkon for 10 minutes. Thoroughly rinse with detergent or water and wipe down with 70% IMS.

Caution: Do not expose metal parts to virkon for more than 10 minutes.

7. Spray the interior of the block heater with 1% virkon solution and wipe down the inside with paper towels. Thoroughly rinse with detergent or water and wipe down with 70% IMS.

Caution: Limit contact time to 10 minutes

Note: Do not steam sterilise material wetted with virkon, place in a yellow stream bag.

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8. Remove all contaminated PPE and clothing upon leaving the work area. Place all reusable contaminated PPE into an autoclave bag for decontamination. Place non-reusable items into the orange stream waste, if covered with virkon, then into the yellow stream waste.
9. Wash hands and other potentially contaminated areas with soap and water.
10. Inform lab staff when clean up is completed.

7.3. Equipment Malfunction.

- The laboratory manager or responsible person should be informed in any part of the equipment fails or malfunctions. With permission the user should consult the Operating Instruction Manual for fault finding and trouble shooting procedures.
- If the equipment fails to work or malfunctions and cannot be rectified according to the troubleshooting procedures detailed in the Manuals the following should be observed.
 1. Inform the Responsible person
 2. Attach a "Do Not Use" notice.
 3. Contact the manufacturer for advice. External maintenance and servicing can only be performed after the water bath has been suitably decontaminated and a Decontamination Certificate has been issued.

8. DOCUMENTATION

Decontamination Certificate- Found on the CBE Learn page.

SOP Version History

| Version Reviewed | Date Revised/ Reviewed | Revision Summary | New Version Number |
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