



<b>Department:</b>	Laboratory and Blood Bank		
<b>Document:</b>	Internal Policy and Procedure		
<b>Title:</b>	Maintenance and Calibration of Shaking Water Bath		
<b>Applies To:</b>	All Blood Bank Staff		
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## 1. PURPOSE:

- 1.1 Establishing system and setting responsibilities for measures taken to ensure the integrity, accuracy and reliability of shaking water bath.

## 2. DEFINITONS:

- 2.1 N/A

## 3. POLICY:

- 3.1 Water bath should be designed for the intended use.
- 3.2 Stainless steel bath containing heater, temperature sensor and over-temperature protection safety element.
- 3.3 The Shaking carriage is totally removable.
- 3.4 Has a microprocessor technology enables selection and storage of different temperature values and operating times, and display of them in the LED multi-display .
- 3.5 Automatically adjusts the heat supply to the value required by the bath .
- 3.6 It has an electronic timer
- 3.7 With usable bath depth 18-20 cm
- 3.8 Optical and audible alarm indication .
- 3.9 Filling volume 18- 32 liters

## 4. PROCEDURE:

### 4.1 Cleaning

- 4.1.1 Cleaning is performed by blood bank staff in charge weekly and according to the equipment need.
- 4.1.2 Before any cleaning operation, switch off the machine and unplug the power cable .
- 4.1.3 Move the equipment to the table edge .
- 4.1.4 Place a suitable collecting bucket or tub underneath the equipment for draining the used water.
- 4.1.5 Clean by soap and water .

### 4.2 Decontamination:

- 4.2.1 Decontamination is an emergency procedure that should be done only if necessary
- 4.2.2 too high concentration of decontamination solution such as bleach can damage the materials of the bath, it is therefore recommended to use it as less as possible .

### 4.3 Temperature recording:

- 4.3.1 Temperature recording is done every 8 hours by blood bank staff in charge.
- 4.3.2 Document the temperature of the water bath on form
- 4.3.3 Place a thermometer in a small test tube filled with water.
- 4.3.4 Place the test tube containing the thermometer in the centre of the water bath .
- 4.3.5 Check the temperature on the thermometer and compare with temperature displayed on LED .

#### **4.4 Reporting:**

- 4.4.1 All maintenance and performance testing must be documented on the appropriate forms .
- 4.4.2 Any deviation from the expected result must be reported to the blood bank supervisor (or designee) or blood bank physician.

### **5. MATERIALS AND EQUIPMENT:**

#### **5.1 Records and Forms:**

- 5.1.1 Daily water bath maintenance form.

### **6. RESPONSIBILITIES:**

- 6.1 Cleaning is performed by blood bank staff in charge weekly and according to the equipment need .
- 6.2 Temperature recording is done every 8 hours by blood bank staff in charge.
- 6.3 Scheduled maintenance is performed by biomedical engineering every 6 months according maintenance and calibration plane .
- 6.4 Unscheduled maintenance is performed by biomedical engineering when needed
- 6.5 It is the responsibility of the blood bank supervisor (helped by blood bank physician) to review the results of cleaning, maintenance, Calibration and any action taken and documentation of all corrective actions .
- 6.6 It is the responsibility of blood batik supervisor to maintain records of malfunction and repair during the working lifetime of the equipment
- 6.7 It is the responsibility of blood bank supervisor to inform biomedical engineering when unscheduled maintenance is needed and maintaining the resets indicating the date of information

### **7. APPENDICES:**

- 7.1 N/A

### **8. REFERENCES:**

- 8.1 AABB Technical manual, 18th edition, 2014.
- 8.2 AABB Standards for Blood Banks and Transfusion Services, 30<sup>th</sup> edition, 2016.
- 8.3 Good Manufacturing Practice for Blood Establishments, Version 2.0, May 2019, Saudi FDA



9. APPROVALS:

	Name	Title	Signature	Date
<b>Prepared by:</b>	Dr. Mohammed Amer	Blood Bank Physician		January 06, 2025
<b>Reviewed by:</b>	Dr. Kawther M. Abdou	Consultant & Lab. Medical Director		January 08, 2025
<b>Reviewed by:</b>	Ms. Noora Melfi Alanizi	Laboratory & Blood Bank Director		January 12, 2025
<b>Reviewed by:</b>	Mr. Abdulelah Ayed Al Mutairi	QM&PS Director		January 12, 2025
<b>Reviewed by:</b>	Dr. Tamer Mohamed Naguib	Medical Director		January 13, 2025
<b>Approved by:</b>	Mr. Fahad Hazam Alshammari	Hospital Director		January 20, 2025