**PURPOSE:**

To describe the procedure for the operation and maintenance of the Thermo Scientific Digital Dry baths

**PRINCIPLE & CLINICAL SIGNIFICANCE:**

Incubation temperature is a critical element in the binding of antibody antigen reactions and is generally selected based on optimal reactive temperature for the test being performed

**POLICIES:**

Temperature verification is required each day of use

**SPECIMEN REQUIREMENTS:**

N/A

**REAGENTS/SUPPLIES/EQUIPMENT:**

|  |  |  |
| --- | --- | --- |
| **Reagents:** | **Supplies:** | **Equipment:** |
| Blood Bank Saline | * 12 x 75 mm test tubes * Disinfectant Wipes | Calibrated Thermometer |

**QUALITY CONTROL:**

Daily (refer to section ‘Daily Quality Control’ below)

**INSTRUCTIONS:**

**TABLE of CONTENTS**

[**Daily Quality Control**](#DailyQC)

[**Use of the DryBath**](#Use)

[**Monthly Maintenance** **or as Needed**](#Monthly)

**Daily Quality Control**

|  |  |  |
| --- | --- | --- |
| **STEP** | **ACTION** | |
| 1 | Verify the Heat Indicator Light is on (not flashing) and the thermometer bulb is covered with saline prior to reading the thermometer   |  |  | | --- | --- | | **If Heat Indicator Light** | **Then** | | And saline level are acceptable | Go to next step | | And/or saline level is NOT acceptable | * Add saline to cover bulb * Allow saline to equilibrate before reading thermometer * Allow Dry bath to come to temperature and the Heat Indicator Light to stop flashing * Go to next step | | |
| 2 | **If thermometer temp is** | **Then** |
| Between 36-38 ºC | * Dry bath is acceptable for use * Document thermometer temperature and tech ID on the Thaw Bath & Dry bath QC & Maintenance form |
| Not between 36-38 ºC | * Remove unit from service and troubleshoot the problem per SOP Removing Equipment from Service and manufacturer operations manual * Go to section ‘[Calibration’](#Calibration) if the liquid thermometer and digital display are more than ± 1.0ºC different |

**Use of the DryBath**

|  |  |
| --- | --- |
| **STEP** | **ACTION** |
| 1 | Verify that the Dry bath is on by verifying:   * Digital display is on * HEAT indicator light is illuminated green |
| 2 | Ensure that the liquid thermometer bulb is cover by saline and reads 36-38 ºC, adjusting for correction factor on thermometer, if necessary |

**Monthly Maintenance** **or as Needed**

|  |  |
| --- | --- |
| **STEP** | **ACTION** |
| 1 | Turn off and unplug the Dry bath |
| 2 | Remove the heating blocks |
| 3 | Clean all surfaces of the Dry bath with a Disinfectant Wipe |
| 4 | Clean the heating blocks including the block holes |
| 5 | Reinstall the heating blocks, plug the Dry bath in, and turn it on |
| 6 | Record cleaning on the *Bench Equipment Cleaning* form |

**CALCULATIONS/INTERPRETATIONS/RESULTS REPORTING/NORMAL**

**VALUES/CRITICAL VALUES**

**CALIBRATION:**

Perform a calibration if the thermometer in saline and the digital display are more than ± 1.0ºC different

|  |  |
| --- | --- |
| **STEP** | **ACTION** |
| 1 | Press and hold the <SET/CAL> button until the first number of the digital display begins to flash |
| 2 | Change the digital display to match the thermometer in saline temperature   * Press <SHIFT> to move the flashing digit to the number that needs adjusting * Press the Up and Down arrows to adjust the number * Press the <SET/CAL> button when the desired temperature is displayed |

**PROCEDURE NOTES AND LIMITATIONS:**

NA

**REFERENCES:**

* Thermo Scientific Digital Dry bath Manual Number 0000848
* Technical Manual. Bethesda, MD: AABB Press, current edition
* Standards for Blood Banks and Transfusion Services. Bethesda, MD: AABB Press, current edition

**RELATED DOCUMENTS:**

FORM Thaw Bath & Dry bath QC & Maintenance

FORM Bench Equipment Cleaning

SOP Removing Equipment from Service

**APPENDIX:**

NA

|  |  |  |  |
| --- | --- | --- | --- |
| **UWMC SOP Approval:** | | | |
|  |  |  |  |
| **UWMC CLIA Medical Director** |  |  |  |
|  | Mark H. Wener, MD | Date |  |
|  |  |  |  |
| **Transfusion Service Manager** |  | Date |  |
|  | Deanne Stephens |  |  |
|  |  |  |  |
| **Compliance Analyst** |  | Date |  |
|  | Christine Clark |  |  |
| **Transfusion Service**  **Medical Director** |  | Date |  |
|  | John R. Hess, MD |  |  |
|  |  |  |  |
| **UWMC Biennial Review:** | |  |  |
|  |  |  |  |
|  |  | Date |  |
|  |  |  |  |
|  |  | Date |  |
|  |  |  |  |