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Section: Bacteriology Procedures	Subject Title: Sterilization Manual	
Prepared by QA Committee		
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AUTOCLAVE GETINGE NOVUSL - SMALL
(MISDM1 small 20x20)

I. Purpose

To sterilize materials this must be free of organisms in order to be used
e.g. growth media for bacteria, sterile pipettes and swabs, sterile saline, etc.

II. Cycles

Gravity Cycle (for wrapped and hard goods):

Temperature: 121.0°C

Sterilization time: 45 minutes (default) – may be changed if necessary – touch temp button and use arrow up/down - then touch “Acknowledge” button.

Dry Time: 12 minutes (default) – may be changed if necessary – touch temp button and use arrow up/down - then touch “Acknowledge” button.

Liquids Cycle

Temperature: 121.0°C



Sterilization time: 45 minutes (default) – may be changed if necessary – touch temp button and use arrow up/down - then touch “Acknowledge” button.

Liquid Cool Time: 12 minutes (default) – may be changed if necessary – touch temp button and use arrow up/down - then touch “Acknowledge” button.

Vacuum Cycle

Not used

Note: do not change any parameters with “Setup” button.

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III. Operation

1. Turn power on (green knob) NOTE: The steam supply is always on. (If there is a problem with the steam supply the autoclave will still operate but will NOT complete the cycle. Check with Charge technologist).
2. Check that there is sufficient printer paper (no coloured stripes on paper strip).
3. Select desired cycle by pressing “Next Cycle” button.
4. Push “door open knob” at bottom right of door and load items (each item should have a piece of autoclave indicator tape attached).
5. Lift door up until it locks closed.
6. Press “Start” button
7. In case an error is noticed (eg. Wrong cycle, temperature, etc.), press “Abort” button and wait for display to return to Ready status. You may the correct the error and restart the cycle.
8. For Liquid cycle: Display will indicate “Hot Liquids” when the cycle is complete.
For Gravity cycle: Display will indicate “Complete” when the cycle is complete.
9. Push “door open knob” (beware of hot steam) at bottom right of door and carefully remove hot items.
10. Check autoclave tape for darkened lines as a check on sterilization.
11. At the end of the day, turn power off (green knob).

IV. Quality Control

ATTEST spore ampoule



1. ATTEST spore ampoules (brown label – for steam sterilization) are tested each week (Wednesday) to verify the autoclave is functioning properly.
2. Wrap ATTEST spore ampoule in a folded green towel. Secure the towel with autoclave tape. Label the tape with autoclave #1 or #2 and the sterilization time used.
3. Load the wrapped ATTEST spore ampoule and sterilize
4. When the cycle is complete, unwrap the ATTEST spore ampoule and label it with department (MICRO), autoclave #1 or #2 and the sterilization time used.
5. Complete a Microbiology requisition and take to Microbiology planting for accessioning.
6. The ATTEST spore ampoule will be processed by the QC bench technologist. Any positive ATTEST results will be reported to the Senior QA technologist for corrective action.

QC Charts:

Fill in daily and weekly QC Charts

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Autoclave printout strips

Save paper printout strips weekly (dated). Give to senior QA technologist monthly.

V. Replace Printer Paper

When coloured lines appear on the printer paper, replace it before operating the autoclave.

1. Carefully tear of old printout, label and save
2. Carefully remove cover from printer.
3. Carefully remove shaft that holds the paper roll from left side.
4. Tear of remaining paper from old roll.
5. Replace new roll on shaft an insert into printer.
6. Feed new paper into slot below the print-head until it comes through.
7. Replace cover

VI. REPLACE PRINTER RIBBON

1. Carefully remove cover from printer.
2. Press on left side of the printer ribbon cartridge. The ribbon will pop out.
3. Replace with new cartridge by pressing on both ends of the cartridge. Be sure that the paper strip comes through the slot in the cartridge.
4. Replace cover



VII. MAINTENANCE

1. The drain is cleaned weekly. Prepare a solution of Sodium triphosphate – 1 tablespoon/L.
2. Remove the perforated metal cover from the autoclave.
3. Remove the drain screens (2) and rinse out any debris.
4. Using a large funnel, pour the Sodium triphosphate solution into the front drain until full. The solution will start to come out from the rear drain when the drain is full.
5. Replace drain screen and rack.

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AUTOCLAVE GETINGE NOVUS1 – LARGE
(MISDM2 large 26x36)

I. Purpose:

To sterilize materials this must be free of organisms in order to be used e.g. growth media for bacteria, sterile pipettes and swabs, sterile saline, etc.

II. Cycles

Wrapped goods Cycle (for wrapped and hard goods):

Temperature: 121.0°C

Sterilization time: 45 minutes (default) – may be changed if necessary – Key must be used to access this function. Press “Cycle Value” button and use arrow up/down to change.

Dry Time: 12 minutes (default) – may be changed if necessary – Key must be used to access this function. Press “Cycle Value” button and use arrow up/down to change.

Liquids Cycle

Temperature: 121.0°C

Sterilization time: 45 minutes (default) – may be changed if necessary – Key must be used to access this function. Press “Cycle Value” button and use arrow up/down to change.

Liquid Cool Time: 12 minutes (default) – may be changed if necessary Key must be used to access this function. Press “Cycle Value” button and use arrow up/down to change.

Hard goods Cycle



Not used

III. Operation

1. Turn power on (yellow button) (steam supply is always on). (If there is a problem with the steam supply the autoclave will still operate but will NOT complete the cycle. Check with Charge technologist).
2. Check that “Printer On” button is lit.
3. Check that there is sufficient printer paper (no coloured stripes on paper strip).
4. Select desired cycle by pressing “Select Cycle” button.
5. Push “Door” button to open the door. Load items (each item should have a piece of autoclave indicator tape attached).

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6. Push and hold “Door” button until the door is fully closed (if you release the button too soon the door will open again).
7. Press “Start” button
8. In case an error is noticed (eg. Wrong cycle, temperature, etc.), press “Abort” button and wait for display to return to “Cycle End” status. You may the correct the error and restart the cycle. If the “Fault” light is lit, you must press it off to reset the autoclave and start over.
9. Display will indicate “Cycle End” when the cycle is complete.
10. Push “Door” button (beware of hot steam) on control panel and carefully remove hot items.
11. Check autoclave tape for darkened lines as a check on sterilization.
12. At the end of the day, turn power off (yellow button).

IV. Quality Control

ATTEST spore ampoule

1. ATTEST spore ampoules (brown label – for steam sterilization) are tested each week (Wednesday) to verify the autoclave is functioning properly.
2. Wrap ATTEST spore ampoule in a folded green towel. Secure the towel with autoclave tape. Label the tape with autoclave #1 or #2 and the sterilization time used.
3. Load the wrapped ATTEST spore ampoule and sterilize
4. When the cycle is complete, unwrap the ATTEST spore ampoule and label it with the department (MICRO), date, autoclave #1 or #2 and the sterilization time used.
5. Complete a Microbiology requisition and take to Microbiology planting for accessioning.
6. The ATTEST spore ampoule will be processed by the QC bench technologist. Any positive ATTEST results will be reported to the Senior QA technologist for corrective action.

QC Charts:

Fill in daily and weekly QC Charts

Autoclave printout strips

Save paper printout strips weekly (dated). Give to senior QA technologist.

V. Replace Printer Paper



When coloured lines appear on the printer paper, replace it before operating the autoclave.

1. Carefully tear off old printout, label and save
2. Press the front panel of the printer in and release. The printer will pop out. Carefully slide the printer assembly out but not so far that it comes off its’ rail.

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3. Carefully remove shaft that holds the paper roll from left side.
4. Tear of remaining paper from old roll.
5. Replace new roll on shaft and insert into printer. The paper should come off the top of the roll and under the black sensor. Feed new paper into slot below the print-head by turning the rubber roller with your fingernail until it comes through the slot in the printer cartridge.
6. Slide the printer assembly in gently until it snaps in place

VI. Replace Printer Ribbon

1. Press on left side of the printer ribbon cartridge. The ribbon will pop out.
2. Replace with new cartridge by pressing on both ends of the cartridge. Be sure that the paper strip comes through the slot in the cartridge.

VII. Maintenance

1. The drain is cleaned weekly. Prepare a solution of Sodium triphosphate – 1 tablespoon/L.
2. Remove the interior rack using the special cart.
3. Remove the drain screen and rinse out any debris.
4. Using a large funnel, pour the Sodium triphosphate solution into the drain until full.
5. Replace drain screen and rack.

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DISHWASHER GETINGE T300

I. Operation

1. Before washing glassware, paper labels **MUST** be removed or they will clog the water spray openings.
2. Turn on power
3. Settings: Extended Wash selected (10 minute wash)
4. Press “Start”
5. Wait until first rinse finishes (minutes), then
6. Add detergent (Suma Classic M7 Mechanical Warewashing Detergent) 300 mL to the bottom of the washer.
7. Press “Start”
8. Wash (10 minutes)

MAINTENANCE

1. The drain is cleaned weekly.
2. Pull interior rack forward to allow access to the inside of the washer.
3. Remove the 2 rectangular stainless steel filter trays from the bottom right side of the washer interior.
4. Rinse any debris from the filter trays and replace into the washer.
5. The water spray tubes are cleaned with a cleaning wire monthly to remove any debris blocking the jets.



HOT AIR OVEN MISDM4

OPERATION

1. Used for drying glassware and metal items.
2. Power on press green button.
3. Set temperature (default 200°C) with dial
4. Set time with arrow up/down

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OPERATING THE POURMATIC™ MODEL MP – 320



I. Procedure

1. Have agar sterilized and tempering in the water bath.
2. Make sure tubing is sterilized and ready to be used.
3. Label all petri plates that will be required with the proper name of agar.
4. Plug in the Pourmatic™ model MP-320.
5. Load petri plates clockwise leaving an empty slot before the beginning of pouring.
6. Assemble the sterile tubing by inserting the nozzle in place and tighten.
7. Wrap the tubing tightly around the wheel being careful not to pinch the tubing.
8. Place the cover plate over the tubing and tighten the screws.
9. Insert the other end of the tubing into the flask containing the agar and cover the flask with a Petri dish with a ‘slice’ cut out.
10. The flask containing the agar must be on a green towel(s) to prevent heat loss.
11. Make sure the setting is at ‘99’
12. Press the **manual** button to begin pouring into a ‘catch plate’ to get rid of air and bubbles.
13. Change setting to ‘00’ and press **calibrate** and measure amount of agar into a 25 ml graduated cylinder
14. The setting must be changed to the amount of agar obtained in the graduated cylinder.
15. Then press the **normal** button to finalize the calibration.
16. The pouring amount could be changed to the desired amount by changing the setting.
17. When all plates are poured run hot water through the tubing to wash out the agar or use hot sterile water between different types of agar.
18. Disconnect the tubing and prepare it to be sterilized for the next usage.

Note:

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If the *Pourmatic™ model MP-320* stops and begins to beep it is resetting itself. After the beeping has stopped press the *manual* button to resume operation. One long and steady beep means the machine is cooling off after one complete cycle. Press the *batch* button to restart.

A problem in the machine is indicated by a number of short beeps. The problem area will light up on the front panel. Locate the problem as soon as possible before the agar solidifies then press the *reset* button to proceed. If the *reset* button is pressed before the problem is fixed the light will go off but the problem will not be resolved.

To temporarily stop the operation press the *stand-by* button. To start it up again press the *reset* button then the *manual* button only if there is a plate in the pouring slot. If there is no plate in the pouring slot then press the *batch* button to resume



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APPENDIX I – STERILIZATION AND GLASS WASHING TECHNICAL MANUAL

[Sterilization and Glass Washing Area Workflow](#)

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APPENDIX II – INCUBATOR WASHING SCHEDULE

[Incubator Washing Schedule](#)

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Annual Review	April 30, 2009	Dr. T. Mazzulli
Annual Review	July 20, 2010	Dr. T. Mazzulli
Annual Review	July 31, 2011	Dr. T. Mazzulli
Annual Review	July 31, 2012	Dr. T. Mazzulli
Annual Review	August 26, 2013	Dr. T. Mazzulli
Merge individual manuals into 1 document	June 23, 2014	Dr. T. Mazzulli
Annual Review		
Annual Review	June 23, 2015	Dr. T. Mazzulli
Update UHN/MSH logo in header		
Annual Review	June 23, 2016	Dr. T. Mazzulli
Annual Review	June 23, 2017	Dr. T. Mazzulli
Annual Review	April 3, 2018	Dr. T. Mazzulli
Annual Review	July 10, 2019	Dr. T. Mazzulli
Annual Review	July 15, 2020	Dr. T. Mazzulli

Full document review included in all updates. Bi-annual review conducted when no revision had been made within 2 years.

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Minor formatting change	April 11, 2021	Jessica Bourke

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