U.S. MICRO-SOLUTIONS INC.
AN ENVIRONMENTAL MICROBIOLOGY LAB

Operating Instructions for the SAS Super 180

The SAS Super 180 is appropriate for use in cleanrooms and other applications that demand the testing of a large volume of air in a short period of time. The following volumes of air are suggested:

- Visibly contaminated areas: 50-100 liters of air
- Normal areas (house): 100-200 liters of air
- Sterile or high-risk areas (cleanrooms, operating rooms): 500-1000 liters of air

General Procedure (for cleanroom procedure see below)

1. Configure air sampler.
    a. Press the ON/OFF switch to turn the sampler on. If it is not necessary to change the volume of air to be sampled, proceed to step 3.
    b. To change the air volume, use the arrow buttons and select "Standard Mode" from the menu.
    c. Press ENTER to confirm selection. Toggle up or down to set the appropriate volume required and press ENTER.
    d. Press CLEAR each time you need to end an action. The unit will then come back to the initial configuration.
2. Clean hands with an isopropyl alcohol pad.
3. Remove the aspirating head and clean all surfaces with an isopropyl alcohol pad and dry with sterile gauze.
    a. Keep your hand to the side of the aspirating head (not over the top) when removing or replacing the head.
4. Insert plate into sampler.
    a. For 55 mm plates: load plate into sampler and remove plate lid.
    b. For 90 mm plates: remove plate lid and load plate into sampler.
5. Replace the aspirating head and tighten into place.
6. Press "Start".
7. At the end of the cycle, remove the aspirating head.
    a. For 55 mm plates: replace the lid of the agar plate and remove the plate from the sampler.
    b. For 90 mm plates: remove the agar plate from the sampler and replace the lid of the plate.
8. Engage the plate lid locking mechanism.
9. If collecting additional samples, repeat process beginning at step 3.

Quality Control

1. Submit a blank unexposed agar plate for each lot of media used for the sampling event to serve as a negative control.

Reference

Bioscience International SAS Super 100/180 Instruction Manual, 11333 Woodglen Drive, Rockville, MD 20852, Sept 2012

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Cleanroom Procedure

1. Wipe the exterior of the sampler with a sporicidal agent prior to transfer into the cleanroom.
2. Don proper garb and sterile gloves. Sanitize gloves with sterile 70% isopropyl alcohol (IPA).
3. Place sampler and media on work surface/table that has been sanitized with sterile 70% IPA.
4. Saturate a lint-free wipe with sterile 70% IPA and place on work surface.
5. Configure air sampler.
    a. Press the ON/OFF switch to turn the sampler on. If it is not necessary to change the volume of air to be sampled, proceed to step 7.
    b. To change the air volume, use the arrow buttons and select "Standard Mode" from the menu.
    c. Press ENTER to confirm selection. Toggle up or down to set the volume to 1000 liters and press ENTER.
    d. Press CLEAR each time you need to end an action. The unit will then come back to the initial configuration.
6. Sanitize gloves with sterile 70% IPA.
7. Remove aspirating head and clean all surfaces of the head with a wipe saturated with sterile 70% IPA. Discard wipe.
8. Place cleaned head on the work surface on top of the IPA wipe.
    a. Keep your hand to the side of the aspirating head (not over the top) when removing or replacing the head.
9. Insert plate into sampler.
    a. For 55 mm plates: load plate into sampler and remove plate lid.
    b. For 90 mm plates: remove plate lid and load plate into sampler.
    c. Place plate lid on the IPA wipe with the edges of the lid touching wipe.
10. Quickly replace the aspirating head and tighten into place.
11. Press "Start".
12. When sampling is complete, sanitize gloves with sterile 70% IPA.
13. Remove the aspirating head, keeping your hand to the side of the head.
    a. For 55 mm plates: replace the lid of the plate and remove the plate from the sampler.
    b. For 90 mm plates: remove the plate from the sampler and replace the lid of the plate.
14. Engage the plate lid locking mechanism.
15. If collecting additional samples, repeat process beginning at step 6.

Quality Control

1. Submit two blank unexposed agar plates for each lot of media used for the sampling event to serve as negative and positive (growth promotion) controls.

Reference

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