

STANDARD OPERATING PROCEDURES
DIVISION OF COMPARATIVE MEDICINE
UNIVERSITY OF SOUTH FLORIDA

SOP#: 1149

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TITLE: Amsco® Eagle SV-120 Scientific Prevacuum Sterilizer
SCOPE: Research and Animal Care Personnel
RESPONSIBILITY: Facility Manager, Surgical Core Manager, Professional and Administrative Staff
PURPOSE: To Outline the Proper Procedures for Use and Maintenance of an Amsco® Eagle SV-120 Scientific Prevacuum Sterilizer

I. PURPOSE

1. This procedure outlines the use and maintenance of the Amsco® Eagle SV-120 autoclave unit used to sterilize surgical instruments, solutions, water, bedding, caging and equipment used for research and husbandry and is located in Room 256 of the Stabile Research Building (SRB).

II. RESPONSIBILITY

1. It is the responsibility of the Facility Manager in conjunction with the Surgical Core Manager to ensure that equipment is appropriately cleaned, maintained in good working order, and available for research personnel as requested.
2. It is the responsibility of the veterinary professional, administrative, and managerial staff to ensure that all research and technical staff using this equipment are adequately trained and experienced.

III. PROCEDURES

Note: Operator should be familiar with **SOPs #1002 Monitoring Autoclave Sterilization, #1006 Sterilization, and #1007 Verify Indicators** before operating this unit.

1. Step on foot pedal to **open vertical chamber door** and confirm drain strainer is clean and in place.
2. Open front cabinet panel and **verify steam, water supply valves are on** and unit power is on.
3. The **main power disconnect switch** is located behind the front cabinet panel and should be left in the **ON** position at all times for normal operation.

4. Supply valves to the sterilizer are located behind the front panel. Both water and steam supply valves should be left in the **ON** position at all times for normal operation.
5. **Check for sufficient printer paper**, if red ink is showing, reload with new roll.
6. Step on foot pedal to **lower vertical chamber door**.
7. Control panel screen should be lit. The sterilizer enters the operating mode when the **ON** touchpad is pressed. Cycle operation can be started, monitored, and aborted using the touch-screen.
8. Choose main menu, and then **select appropriate cycle** option(s).
9. **Daily air removal tests should be performed each day** prior to running a load. If the autoclave has been out of service for several days, press "**CYCLE SELECT**", select "**TEST CYCLES**", and select "**DART WARMUP**" cycle to bring chamber up to operating temperature in preparation for the DART/Bowie Dick test cycle.
10. After "**DART WARMUP**" cycle is completed, or if the autoclave was used during the previous 2 days, place the appropriate test pack in chamber following **SOP #1002** entitled **Monitoring Autoclave Sterilization**, and press "**CYCLE SELECT**" and select "**BD 121**".
11. After successful completion of DART/Bowie-Dick testing push appropriate button for sterilization. **Place items to be autoclaved into chamber**. Items should not be tightly stacked and should be arranged to facilitate the circulation and penetration of steam. Make sure shelves have been pushed back into original position after loading.
12. Press "**CYCLE SELECT**" and choose appropriate cycle. **PREVAC** for sterilizing caging and biohazard waste. **LIQUIDS** for sterilizing liquids in bottles or **Gravity** for sterilizing surgical instruments. The unit is now operating and will heat to the temperature and time selected developing a pressure appropriate to time/temperature exposures. If cycle parameters on screen are inappropriate, use "previous" button to make correct choice.
13. Examples of times and temperatures for the applications listed:
 - a. Prevac- Autoclave rodent caging- 15 minutes @ 121⁰ C
 - b. Liquid- Water bottles- 45 minutes @ 121⁰ C
 - c. Dart- Air removal test- 4 minutes @ 132⁰C
 - d. BD121- Bowie-Dick test- 4 minutes @ 121⁰C
14. At the completion of a sterilization cycle a tone will sound and the cycle summary and "Cycle complete" message are printed indicating the load is finished.
15. **After the pressure in the chamber reaches zero the door can be opened** by stepping on the foot pedal and the load carefully removed.

Caution: Autoclave unit and contents may be hot, wear appropriate protective equipment.

IV. MAINTENANCE

1. Periodically **inspect and clean chamber** if materials spill (e.g. food, bedding)
2. **Keep outside of unit clean** by using a stainless steel cleaner.
3. Autoclave units are tested and verified as to proper function in accordance with **SOP #1002**, this verification is recorded on the **Autoclave Sterilization Record**, and records are maintained in accordance with **SOP #010**.
4. Routine maintenance and non-routine service is performed by an authorized subcontractor and is documented in writing.
5. Equipment that functions without deficiency, receives regular preventative maintenance, and successfully passes monthly verifications, is considered certified.

V. REFERENCES

1. Refer to manufacturer's instructions for additional information.

Approved:

Date: