Technical Bulletin

STERIS Steam Sterilization Cleaning Procedure

STERIS®

Introduction

Due to their long useful life, it is not uncommon for facilities to own several different models of steam sterilizers. Over time, chamber materials and chemical cleaners have changed, and so have the recommendations for cleaning found in operator's manuals. Therefore, cleaning instructions may differ from manual to manual. In the interest of providing a uniform, up-to-date cleaning methodology suitable for all steam sterilizers, the following procedure may be used in place of methods described in operator's manuals.

General Guidelines:

1. Read this entire procedure before cleaning.

2. Chamber cleaning should be performed under the following circumstances:
    a. When spills or other soiling have occurred,
    b. Periodically to maintain sterilizer cleanliness and appearance.
    c. When processing materials that may be detrimental to the chamber.

3. Due to differences in water and steam quality, frequency of use, boiler additives and other load variations, no specific time interval is recommended. Rather, operators must determine an appropriate cleaning interval based on local conditions and chamber appearance.

Materials Required:

1. STERIS Liqui-Jet 2®, part # 1037-08, 1 gal. (4 per case)

2. STERIS Pump-up Acid-Rated Sprayers, part #EQ1401, Quantity – 2, one for the Liqui-Jet 2, and one for rinse water (tap water).

3. Soft lint-free cloths and/or a soft brush suitable for attaching to a mop extension handle.

4. Mop extension handle with a clamping mechanism on the end (available through hospital suppliers or hardware stores).

5. Personal protective equipment, including heavy rubber gloves, protective gown, and face shield or safety goggles.

Procedure:

1. Turn off sterilizer power, water, and steam supply, following manufacturer instructions in the sterilizer operator's manual. Completely open the sterilizer door and allow the sterilizer to cool (approximately 4-5 hours).

2. If applicable, remove chamber rack and shelves according to instructions found in the operator's manual.

3. Before cleaning, put on heavy rubber gloves, a protective gown, and a face shield or safety goggles.

4. STERIS Liqui-Jet 2 is an approved cleaning solution that is specifically formulated to remove many common chamber deposits. Dilute the Liqui-Jet 2 according to package instructions in one of the pump-up pressurized spray containers. Clearly label the spray container with the contents to prevent container mix-ups. Using a coarse spray pattern to avoid creating fine mist, evenly apply the solution to the inside surfaces of the sterilizer chamber, including the inside surface of the door. Use a dampened lint-free cloth, or soft brush attached to an extension handle to clean the chamber surface. Never use abrasive cleaning compounds, wire brushes, steel wool, or other scouring pads as this may lead to permanent damage of the chamber surface and subsequent corrosion. A sponge mop should not be used because they tend to crumble in the chamber and deposit debris, which may clog the chamber drain.

5. Fill the second pump-up spray bottle with tepid tap water and label the bottle with the contents to prevent container mix-ups. Thoroughly flush the sterilizer chamber surfaces and the inside of the sterilizer door at least two times with tap water, taking care to eliminate all detergent residue. If not removed, detergent residue may become visible upon heating of the chamber and may cause damage to the chamber surface. Refill the spray bottle if necessary to ensure proper rinsing.

6. The diluted Liqui-jet 2 may also be used to clean the rack and shelves, if applicable. Place the rack and shelves in a large sink. Using the sprayer, apply Liqui-jet 2 to the surface and with a dampened cloth, remove any soil. Rinse thoroughly using tap water and dry with a soft, lint-free cloth.

7. The chamber drain strainer should be cleaned at least once a day, preferably in the morning before running the first cycle. The strainer should also be cleaned following chamber cleaning to remove any debris resulting from the cleaning process. Remove the strainer following instructions provided in the operator's manual. Remove obvious debris from the strainer and use a brush, wire, or similar tool to remove any remaining accumulation. Reverse flush the strainer with tap water and replace it in the drain.

8. To clean the chamber drain, measure 1-2 ounces of full-strength Liqui-Jet 2 into a metal medicine cup and pour the solution slowly down the sterilizer drain. Wait five minutes and pour three quarts of hot tap water down the drain to rinse out the Liqui-Jet 2. The tap water may puddle on the bottom of the chamber. This is normal and should drain completely in a few minutes.

9. Replace the sterilizer rack and shelves, if applicable, using the reverse of the removal procedure.

10. Turn on the sterilizer power switch, water, and steam, and run an empty cycle before resuming routine use.

11. Diluted Liqui-Jet 2 should not be stored for any length of time. After cleaning, dispose of any unused Liqui-Jet 2 by flushing down the drain with plenty of water. Thoroughly rinse the spray container used for the Liqui-Jet 2. Empty the water from the spray container used for rinsing and store the containers in a manner that will promote drying until needed for further use.

Safety Considerations:

1. Allow sterilizer to cool completely before cleaning.

2. Use appropriate personal protective equipment, including gloves, protective gown, and safety goggles or face shield to prevent contact with the chemical solutions.

3. When spraying the diluted Liqui-Jet 2 into the sterilizer, use a coarse sprayer that will not produce a fine mist.

4. Use only acid-rated pressure sprayers to avoid chemical damage to sprayer parts and to prevent sprayer malfunction.

Other Available Services:

1. If chamber deposits remain after rinsing, water mineral scale may be the cause. To help resolve this problem, the STERIS Technical Service Sales Request program (TSSR) is available at no charge. This is a laboratory based service in which STERIS analyzes instruments, water, wraps, and scale deposits to help determine the causes for spotting, staining, and corrosion of surgical instruments and processing equipment. STERIS provides recommendations on the products and procedures needed to improve cleaning results while protecting the integrity of the instrument and equipment materials.

2. Professional cleaning on an annual basis, or as required for local conditions, is suggested. STERIS Service offers an automated chamber cleaning service that utilizes both mechanical and chemical means to remove stubborn deposits. Check the STERIS website at www.steris.com for details on these services or contact your STERIS Account Manager for more information.

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STERIS®

STERIS Corporation
5960 Heisley Road
Mentor, OH 44060-1834 ▪ USA
440-354-2600 ▪ 800-548-4873
www.steris.com