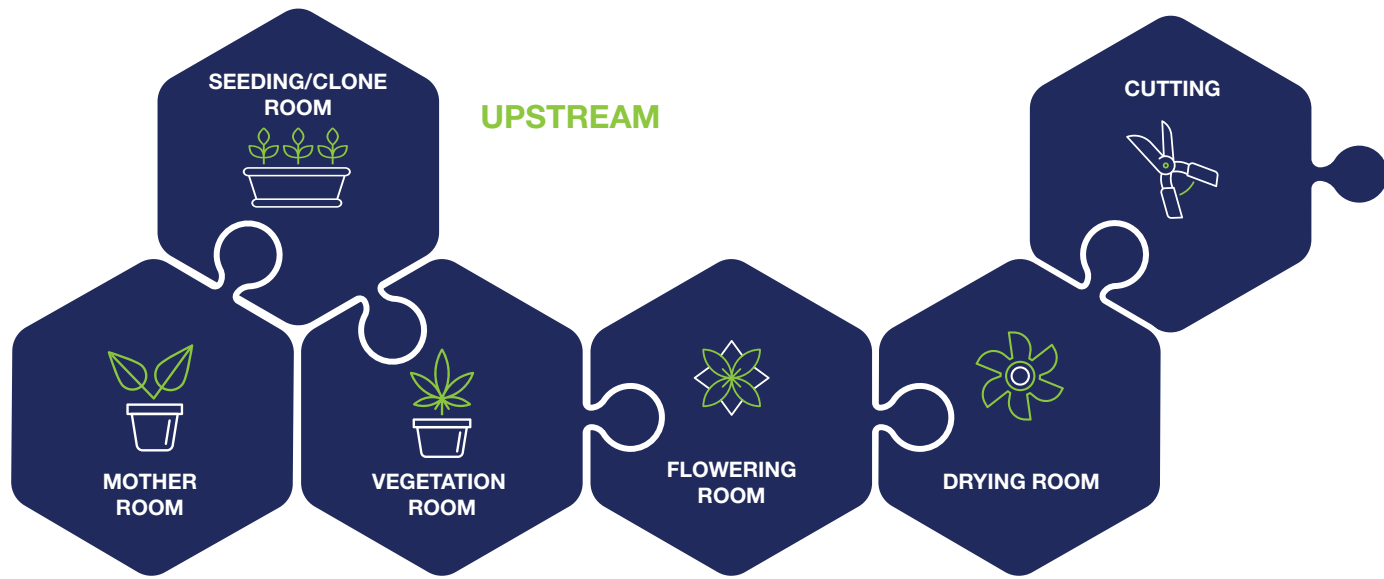


Contamination Control in the Cannabis Industry

The pharmaceutical and biotechnology industries are investing in cannabis and cannabis-derived products. In traditional drug manufacturing, validated cleaning and testing protocols ensure product is not contaminated by microorganisms. In the cannabis industry, when utilizing a plant as a source of active pharmaceutical ingredient (API) there is a greater potential for microbial contamination. STERIS Life Sciences has the knowledge and expertise to apply pharmaceutical manufacturing standards to the unique processes of the cannabis industry to develop a controlled and optimized cleaning process.



MOTHER ROOM | SEEDING/CLONING ROOM VEGETATION ROOM | FLOWERING ROOM

- **Vaprox™ Hydrogen Peroxide (35%) Sterilant** is a proprietary 35% aqueous hydrogen peroxide solution that drives the efficacy and performance of STERIS's patented VHP™ process technology and offers broad-spectrum efficacy against viruses, bacteria, yeasts and bacterial spores.
- **VHP VICTORY™ Biodecontamination Unit** is a mobile Vaporized Hydrogen Peroxide unit with high output for room and facility biodecontamination. Easy to operate, a biodecontamination cycle can be run with the touch of a few buttons using SmartPhase™ software technology.
- **Spor-dex™ VH202 Biological Indicators** are hydrogen peroxide vapor biological indicator and growth medium for testing, validation, and routine monitoring of applications with VHP Biodecontamination Units using patented STERIS VHP process technology.
- **Stera-ffirm™ VH202 Process Indicator** for routine monitoring of applications with VHP Biodecontamination Units using STERIS's patented VHP process technology.
- **Vesta-Syde™ SQ Quaternary Ammonium Disinfectant** can be used for surface disinfection and microbial control of floors and walls in cultivation rooms.
- **Spor-Klenz™ Concentrate Cold Sterilant** is used to sterilize and disinfect hard surfaces in empty cultivation rooms. Spor-Klenz Ready-to-Use has broad-spectrum efficacy against viruses, bacteria, fungi, and bacterial spores.
- **3% Hydrogen Peroxide WFI Sterile Solution** is used to remove residue from product contact surfaces, floors, walls and ceilings in the upstream process of cannabis manufacturing.

DRYING ROOM

- **VHP VICTORY™ Biodecontamination Unit with Vaprox™ Hydrogen Peroxide (35%) Sterilant** is a mobile Vaporized Hydrogen Peroxide unit with high output for room and facility biodecontamination. A cycle can run with the touch of a few buttons using SmartPhase™ software technology. VHP™ process technology offers broad-spectrum efficacy to target mold in the drying room.
- **Spor-dex™ VH202 Biological Indicators** are hydrogen peroxide vapor biological indicator and growth medium for testing, validation, and routine monitoring of applications with VHP Biodecontamination Units using patented STERIS VHP process technology.
- **Stera-ffirm™ VH202 Process Indicator** for routine monitoring of applications with VHP Biodecontamination Units using STERIS's patented VHP process technology.

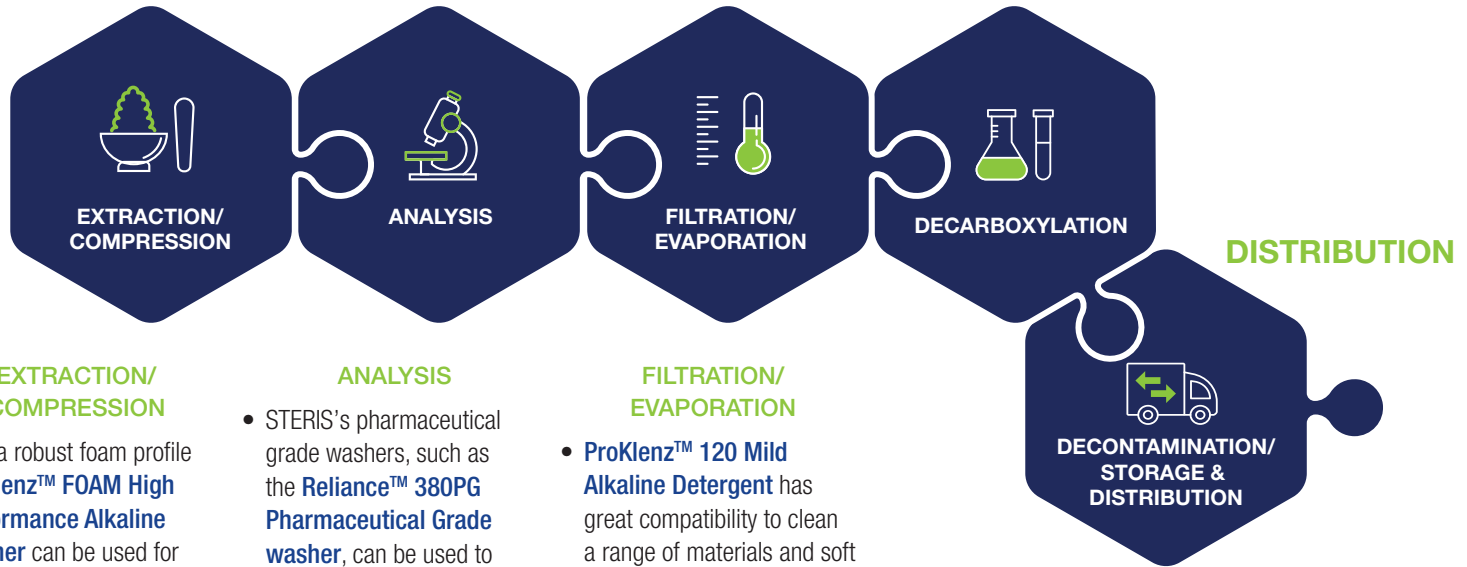
CUTTING ROOM

- **ProKlenz™ NpH High Performance Neutral Detergent** can be used to manually clean tough challenges, like soils on trimmers, trays and tabletops in the cutting room.
- **The Reliance™ 380PG Pharmaceutical Grade Washer** can be used to clean small components from the manufacturing equipment for clean-out-of-place (COP) applications.

Contamination Control in the Cannabis Industry

Continued

DOWNSTREAM



PACE™

STERIS's Process and Cleaner Evaluation (PACE) program offers lab and field evaluations for difficult industry soils. STERIS Technical Service Team helps Customers determine the optimal cleaning parameters to effectively address soils while improving process efficiency and safety. Do you have a technical question? Reach out to our dedicated team for scientific support.

EXTRACTION/ COMPRESSION

- With a robust foam profile **ProKlenz™ FOAM High Performance Alkaline Cleaner** can be used for manual cleaning of large process equipment.
- **ProKlenz™ ONE High Performance Alkaline Cleaner** cleans the crude extract material from stainless steel equipment during the compression downstream process.

ANALYSIS

- STERIS's pharmaceutical grade washers, such as the **Reliance™ 380PG Pharmaceutical Grade washer**, can be used to clean laboratory equipment used in the analysis of API in the cannabis industry.
- **ProKlenz™ ONE High Performance Alkaline Cleaner and ProKlenz™ Booster Detergent** are used to clean glassware found in the analysis laboratory setting.
- Over STERIS's long history of supporting pharmaceutical manufacturers, STERIS has developed an **extensive documentation package** to provide necessary information to support STERIS's Customer validation objectives.

FILTRATION/ EVAPORATION

- **ProKlenz™ 120 Mild Alkaline Detergent** has great compatibility to clean a range of materials and soft metals, like aluminum and brass, that may be found on manufacturing equipment.

DECARBOXYLATION

- **ProKlenz™ ONE** is designed with multiple cleaning mechanisms to clean and disinfect in one step. When used with **ProKlenz™ Booster Detergent**, this combination can clean the toughest challenges, like soils that may be baked on to processing equipment during the decarboxylation process.

DECONTAMINATION SERVICES AND EQUIPMENT

- **STERIS Applied Sterilization Technologies (AST)** provides irradiation services and equipment to sterilize or decontaminate products in the Life Sciences industry. STERIS AST supports the cannabis industry with both contract irradiation services and equipment for in-house decontamination of dried cannabis or cannabis-derived product in its final packaging.