MOBIUS CLEANING FUNDAMENTALS TO MAINTAIN GMP COMPLIANCE

3 STEP PROCEDURE

The best preventative maintenance action you can take to keep your Mobius in peak operating condition and maximize its service life is thorough, routine cleaning. In this guide, we'll discuss the most important things to keep in mind when designing a standard operating procedure for cleaning your Mobius processing equipment.

There are three key steps to properly cleaning cannabis processing equipment:



- RINSE



Cleaning followed by **rinsing** will remove most germs, dirt, and impurities from surfaces, while **sanitizing** reduces the remaining germs on surfaces to the satisfaction of public health codes and regulations.

In the case of cannabis processing equipment, the cleaning process will remove cannabis resin. Cleaning is performed with water, a cleaning solution (typically a degreaser), and scrubbing. After completing the cleaning and rinsing steps, equipment sanitizing will be performed with sanitizing sprays or wipes.

CREATING A CLEANING VALIDATION PROTOCOL

CLEAN FIRST, SANITIZE SECOND

Cleaning is an important first step to ensure you remove resin build ups and dirt from your equipment. Cleaning removes the majority of harmful viruses and bacteria from surfaces. Surfaces should be cleaned before sanitization, as impurities like resin and dirt may make it harder for chemicals to reach and kill germs.

CLEAN AFTER EACH USE

It is recommended that equipment is cleaned after each use. The longer resin is allowed to build up and set on the equipment, the more difficult it is to remove. Cleaning regularly ensures that contaminants are not introduced from one batch to the next – and makes the job much easier!

USE WARM OR HOT WATER

Cleaning cannabis resin off equipment using cold water is almost impossible, which is why we recommend using warm or hot water to clean and rinse with. Most cleaners are formulated to work effectively up to 140°F (60°C).

USE AN EFFECTIVE DEGREASER

Without the right cleaning products, cannabis resin can be exceptionally difficult to remove. Degreasers break down resins and lift them off surfaces. Combining an effective degreaser with hot water will make cleaning your cannabis processing equipment fast and easy.

When choosing a degreaser, make sure to check that it is compatible with the equipment you are cleaning. Most degreasers tend to have a very high pH level (pH 13 – 14), which can interact negatively with certain materials and treatments.

To clean Mobius and other cannabis processing equipment, we recommend GMP Solutions – Step 1 Cleaner. This product has been specially formulated to break down cannabis resins and is safe to use on all Mobius equipment and parts.

WHAT <u>NOT</u> TO CLEAN WITH ISO

It is very important to choose a cleaner that is compatible with the equipment being cleaned. Many facilities will use isopropyl alcohol (iso) as a cleaner, but we recommend it to be used as a sanitizing agent instead. Alcohols like iso dry out plastics, rubbers, and adhesives, causing them to become brittle and crack. Iso is not effective as a cleaning agent, as it can be damaging to equipment when used incorrectly; it is generally too harsh--and expensive--to be used as a cleaner. Furthermore, the fumes are not good for cleaning crews, particularly if they are operating in enclosed spaces.

We strongly recommend using a good degreaser to clean rather than using iso. If a sanitizer is needed after cleaning, we recommend using sanitizing sprays or wipes that are safe for your equipment surfaces.

PROPERLY EQUIP YOUR CLEANING AREA

Ideally, your facility has a dedicated wash bay or area for equipment cleaning. If this is not an option at your facility, it's critical that your processing space is fitted with ample drainage so the cleaning process can still be carried out for the equipment.

WASH BAY SETUP

When setting up a wash bay, consider the following:

- · Amount of equipment to be washed and frequency of washing each component
- · Space required for disassembled equipment when broken down for cleaning
- Washing and drying areas
- Access to hot water
- Drainage
- · Sinks and other built-in fixtures
- Air handling
- Floor finish
- · Distance between the equipment's area of operation and the wash bay

RECOMMENDED TOOLS AND EQUIPMENT

- Degreaser effective on cannabis resin and safe on equipment, like GMP Solutions Step 1 Cleaner
- Sanitizer
- · Tables and racks (with casters)
- Hot water pressure washer
- Low-pressure pump sprayer
- Compressed air
- Drying racks
- · Specialized tools and parts washers (as applicable)
- Hand tools
- Rags, cloths, and/or towels
- · Disposable wipes pre-soaked with cleaning solution or sanitizer
- Scrub brushes
- Plastic razors

DEVELOPING A CLEANING SOP

If you plan to formalize your organization's cleaning approach into a Standard Operating Procedure (SOP), the following can be used as a guide:

- Provide step-by-step details in how cleaning, rinsing, and sanitizing procedures are to be performed, including and specialized instructions, such as:
 - · Disassembly and reassembly instructions
 - Pre-rinse instructions
 - Cleaning and sanitizing chemicals to be used, and their rotation
 - · Chemical mixing and handling instructions
 - Appropriate chemical concentrations as per product labels
 - Water temperature or cleaning solutions
 - Surface contact time
 - · Scrubbing, rinsing, and drying instructions
 - · Final flush and rinse requirements
- 2. Identify procedures to be followed to make sure the activities are conducted in a manner that ensures the cannabis product and product contact surfaces are not contaminated.
- Identify any general housekeeping, such as sweeping, and tidying up, that will help maintain the equipment, processing space, and keep the general facility in clean and sanitary condition.