



BALANCE THE MIND & MACHINE:

THE TAO OF CLEANING YOUR HARVESTING EQUIPMENT

**Hosted by
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What we're covering today

1. Setting-up your wash bay
2. Equipping your wash bay
3. Developing your cleaning SOPs
4. Preventative maintenance

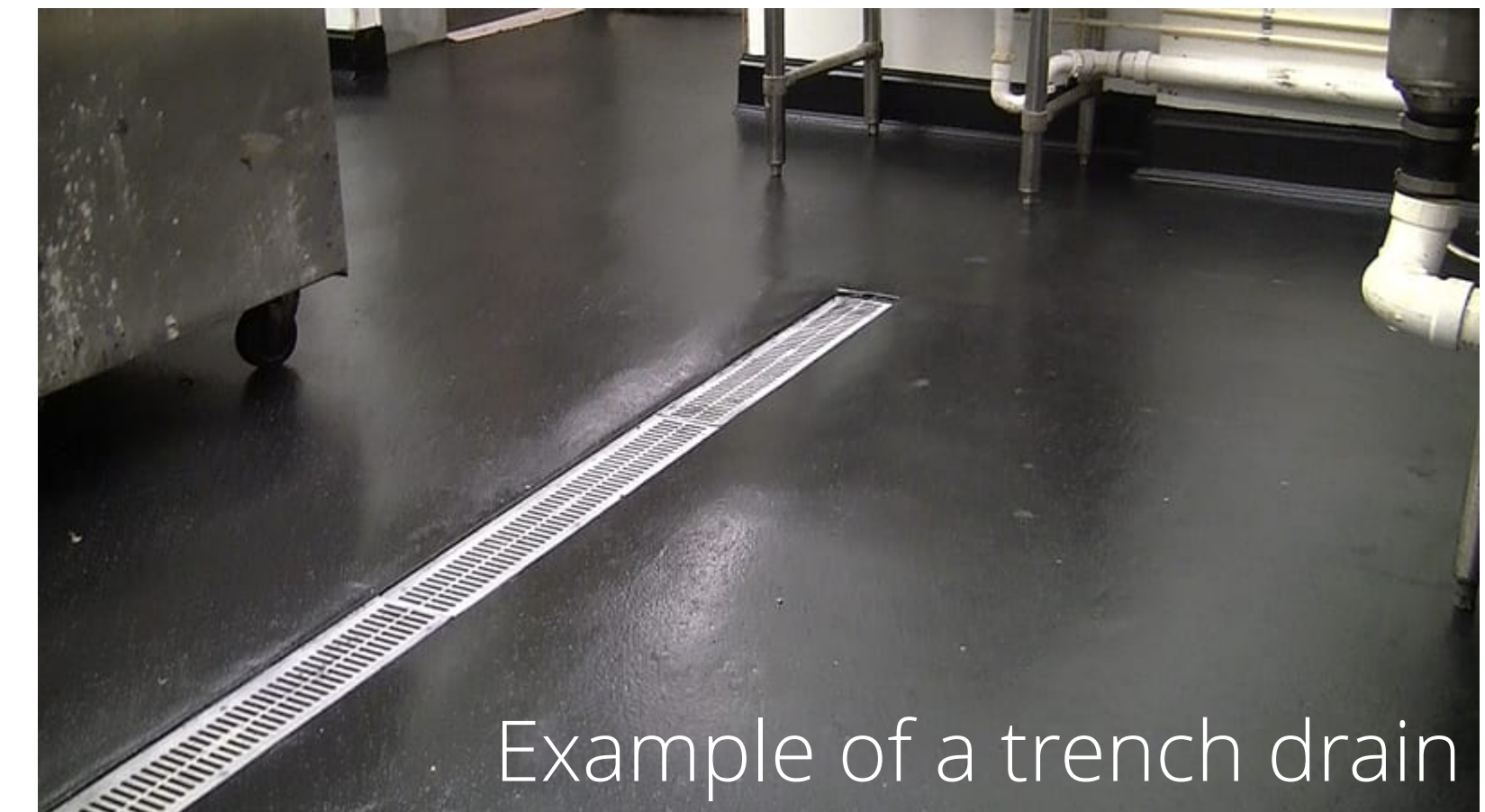
Part 1:

SETTING-UP YOUR WASH BAY

SETTING-UP YOUR WASH BAY

Consider the following when allocating space for your wash bay.
All of these factors will impact the size of the space required and the location of the wash bay.

- Amount of equipment to be washed and frequency of washing for each piece
- Equipment size when broken down for cleaning
- Wash areas versus drying areas
- Access to hot water
- Drainage
- Sinks and other built-in fixtures
- Air handling
- Floor finish
- Distance between area equipment is used and the wash bay



Example of a trench drain

QUESTIONS & ANSWERS

Part 2:

EQUIPPING YOUR WASH BAY

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- Tables and racks – with casters!



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- Hot water pressure-washer

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Consider equipping your wash bay with the following tools and equipment:

- Tables and racks – with casters!
- Hot water pressure-washer
- Low-pressure garden sprayer



EQUIPPING YOUR WASH BAY

Consider equipping your wash bay with the following tools and equipment:

- Tables and racks – with casters!
- Hot water pressure-washer
- Low-pressure garden sprayer
- Compressed air



EQUIPPING YOUR WASH BAY

Consider equipping your wash bay with the following tools and equipment:

- Tables and racks – with casters!
- Hot water pressure-washer
- Low-pressure garden sprayer
- Compressed air
- Drying racks

EQUIPPING YOUR WASH BAY

Consider equipping your wash bay with the following tools and equipment:

- Tables and racks – with casters!
- Hot water pressure-washer
- Low-pressure garden sprayer
- Compressed air
- Drying racks
- Specialized parts washers, as applicable



EQUIPPING YOUR WASH BAY

Consider equipping your wash bay with the following tools and equipment:

- Tables and racks – with casters!
- Hot water pressure-washer
- Low-pressure garden sprayer
- Compressed air
- Drying racks
- Specialized parts washers, as applicable
- Hand tools
 - Rags, cloths, towels
 - Disposable, pre-soaked wipes
 - Scrub brushes
 - Plastic razors
 - Labeled spray bottles

QUESTIONS & ANSWERS

Part 3:

DEVELOPING YOUR CLEANING SOPs

CLEANING VS. SANITIZING

ISO IS NOT A CLEANER!!

So what is the difference between cleaning, sanitizing and disinfecting?

CLEAN & SANITIZE: A 2-STEP PROCESS

CLEANING:

- Cleaning is defined as the removal of dirt or debris by physical and/or chemical means.

SANITIZING:

- Sanitizing is defined as the reduction of microorganisms to levels considered safe from a public health viewpoint. Sanitizing takes place after the cleaning step because it is most effective on a minimally soiled surface.

<https://www.inspection.gc.ca/preventive-controls/cleaning-and-sanitation-program/eng/1511374381399/1528206247934>

DISINFECTING:

- the application of a mixture of substances capable of destroying or irreversibly inactivating pathogenic (disease-causing) and potentially pathogenic microorganisms, but not necessarily bacterial spores, present on surfaces due to the antimicrobial action of the active ingredient(s).

CLEANING VALIDATION

How do I know my equipment is clean?

When first establishing a cleaning SOP, a cleaning validation exercise may need to be carried out. Each governing jurisdiction will have guidelines for this.

For example, Health Canada's Cleaning Validation Guidelines can be found at <https://www.canada.ca/en/health-canada/services/drugs-health-products/compliance-enforcement/good-manufacturing-practices/validation/cleaning-validation-guidelines-guide-0028.html#a4>

FDA cleaning validation guidelines can be found at <https://www.fda.gov/validation-cleaning-processes-793>

For equipment cleaning, validation involves confirming that that proposed cleaning regimen does not introduce contaminants into ingredients and/or the end product.

Hand-held swab testing equipment is available. For a comparison of some of the models available, check out <https://www.hygiena.com/other-products/comparison-chart-other.html>

CLEANING SOPs

Considerations when developing cleaning SOPs

- 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
- Temperature of water or cleaning solutions
- Solution pressures
- Surface contact time
- Scrubbing, rinsing and drying instructions
- Final flush and rinse requirements
- If desired, swab-testing protocols can be introduced into the cleaning validation process to determine if further action is necessary.

SELECTING YOUR CLEANERS

What cleaning and sanitizing products should I use?

- Select a cleaner that is appropriate for the material. Cleaning stainless steel is different than cleaning, rubber, plastic or aluminum. Choose the right cleaner for the job.
- Allow for proper contact time! Cleaners work by penetrating a soil and lifting it from a surface. Allow the cleaner to do its work by planning your cleaning routine to allow for sufficient contact time.

While we're on that note, think that 99% iso is better than 70% iso is better than 30% iso? You'd be wrong. The higher the alcohol content, the faster it evaporates and the less contact time for sanitizing.

SELECTING YOUR CLEANERS

But my QC team says that I can only use ‘certified’ cleaners.

Nope, this is another misinterpretation.

Cannabis and hemp processing regulations in all jurisdictions (Canada, Europe, Australia, South Africa, Israel and US state regulations) do not prescribe what cleaners and sanitizers can be used. They only require a particular result – that is, a piece of processing equipment cannot introduce contamination to the substance being processed. Thus, proper cleaning of soils, followed by rinsing of the cleaning product is the requirement.

SELECTING YOUR CLEANERS

Canada: Part 5 of the Cannabis Regulations

Sanitizers, agronomic inputs and non-food chemical agents

81.1 Any sanitizer, agronomic input or non-food chemical agent that is present at a site must

- (a) be properly and clearly identified;
- (b) be suitable for its intended use and not present a risk of contamination of cannabis or anything that will be used as an ingredient; and
- (c) be handled and used in a manner that does not present a risk of contamination of cannabis or anything that will be used as an ingredient and that is in accordance with the manufacturer's instructions.

Sanitation program

87 (1) Cannabis and anything that will be used as an ingredient must be produced, packaged, labelled, distributed, stored, sampled and tested in accordance with a sanitation program that sets out

- (a) procedures for effectively cleaning the building or part of the building in which those activities are conducted;
- (b) procedures for effectively cleaning the equipment and conveyances used in those activities;
- (c) procedures for handling any substance used in those activities; and
- (d) all requirements, in respect of the health and hygienic behaviour of the personnel who are involved in those activities, that are necessary to ensure that those activities are conducted in sanitary conditions.

SELECTING YOUR CLEANERS

EU: Part 1, Ch.3 EU Guidelines for GMP

EQUIPMENT

3.36 Manufacturing equipment should be designed so that it can be easily and thoroughly cleaned. It should be cleaned according to detailed and written procedures and stored only in a clean and dry condition.

3.37 Washing and cleaning equipment should be chosen and used in order not to be a source of contamination.

https://ec.europa.eu/health/sites/health/files/files/eudralex/vol-4/chapter_3.pdf

SELECTING YOUR CLEANERS

*California: California Code of Regulations, Title 17
Division 1, Ch.13. Manufactured Cannabis Safety*

§40243. Equipment and Utensils.

(c) Cleaning, sanitizing, and maintenance. The quality control program for cleaning, sanitizing, and maintenance of equipment and utensils shall include the following elements, at minimum:

- 1) A detailed, written procedure for cleaning, sanitizing, and maintaining (including calibrating) equipment and utensils;
- 2) A schedule for cleaning, sanitizing, and maintaining equipment and utensils;
- 3) A procedure, including a log, for documentation of the date and time of maintenance, cleaning, and sanitizing of equipment and utensils; and
- 4) A detailed, written procedure for storing cleaned and sanitized equipment and utensils in a manner to protect the equipment and utensils from contamination.

Authority: Sections 26012, 26013 and 26130, Business and Professions Code.

Reference: Sections 26011.5 and 26131, Business and Professions Code.

https://www.cdph.ca.gov/Programs/CEH/DFDCS/MCSB/CDPH%20Document%20Library/DPH17010_FinalClean.pdf

QUESTIONS & ANSWERS

Part 4:

PREVENTATIVE MAINTENANCE

PREVENTATIVE MAINTENANCE

The best and most cost-effective way to manage your equipment is through preventative maintenance. Regular and proper cleaning is a HUGE part of preventative maintenance.

- Include PM procedures in your SOPs.
- Track the hours on your equipment, including individual parts.
- Take a preventative, not a reactive, approach.

QUESTIONS & ANSWERS



THANK YOU FOR JOINING US

A RECORDED VERSION
WILL BE AVAILABLE SOON

CONTACT US



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CLEANING VIDEO LINKS

[M108S Trimmer](#)

[MBX Bucker](#)

[M210 Mill](#)

[Tumbler & Brush Washer – How To Use](#)

[Tumbler & Brush Washer - In Action](#)