

BUBBLETEK - 20 GAL **USER MANUAL**



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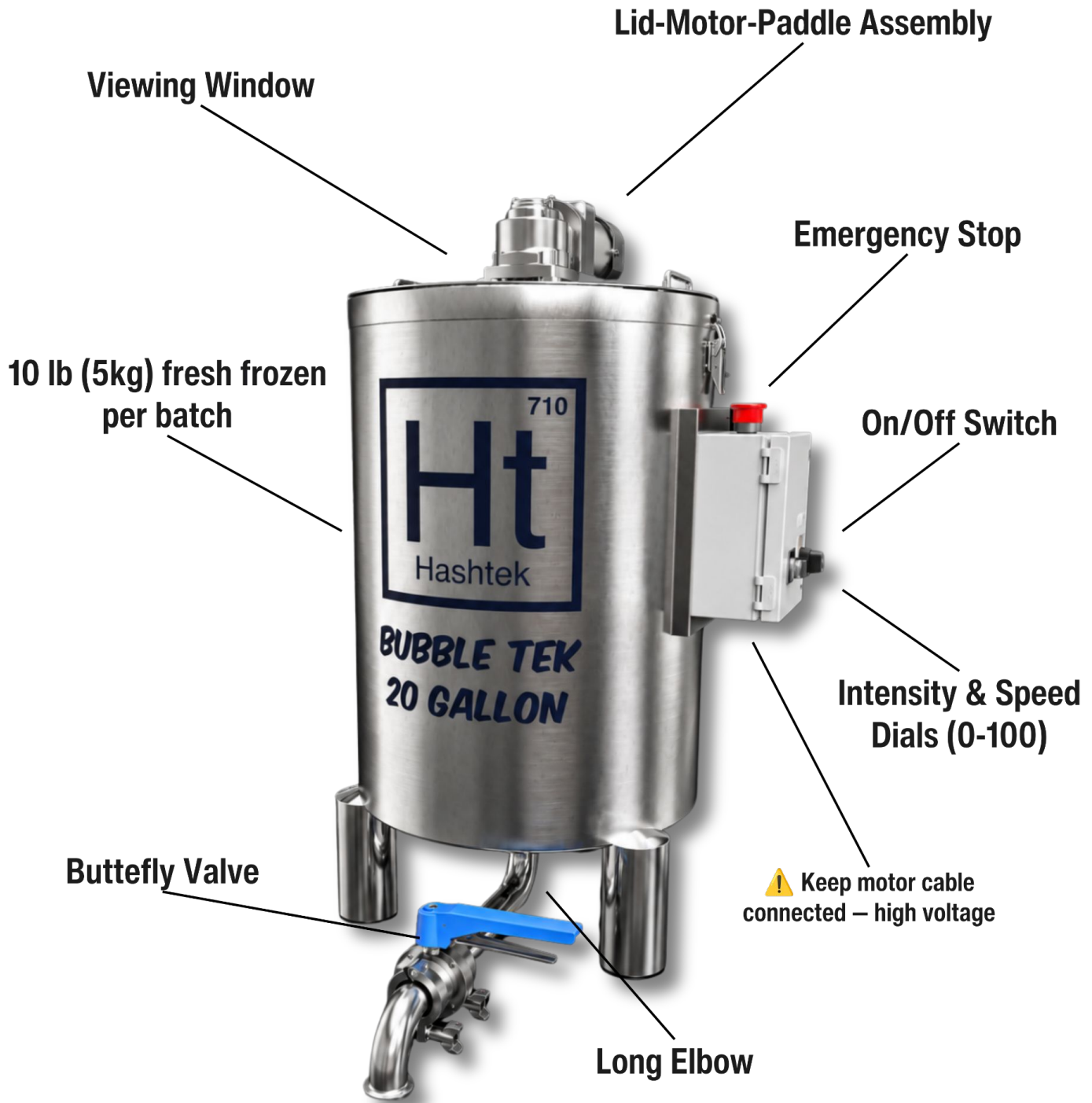
This manual covers:

- **BubbleTek (20 Gallon)**
- **Legendary Mini Bundle**

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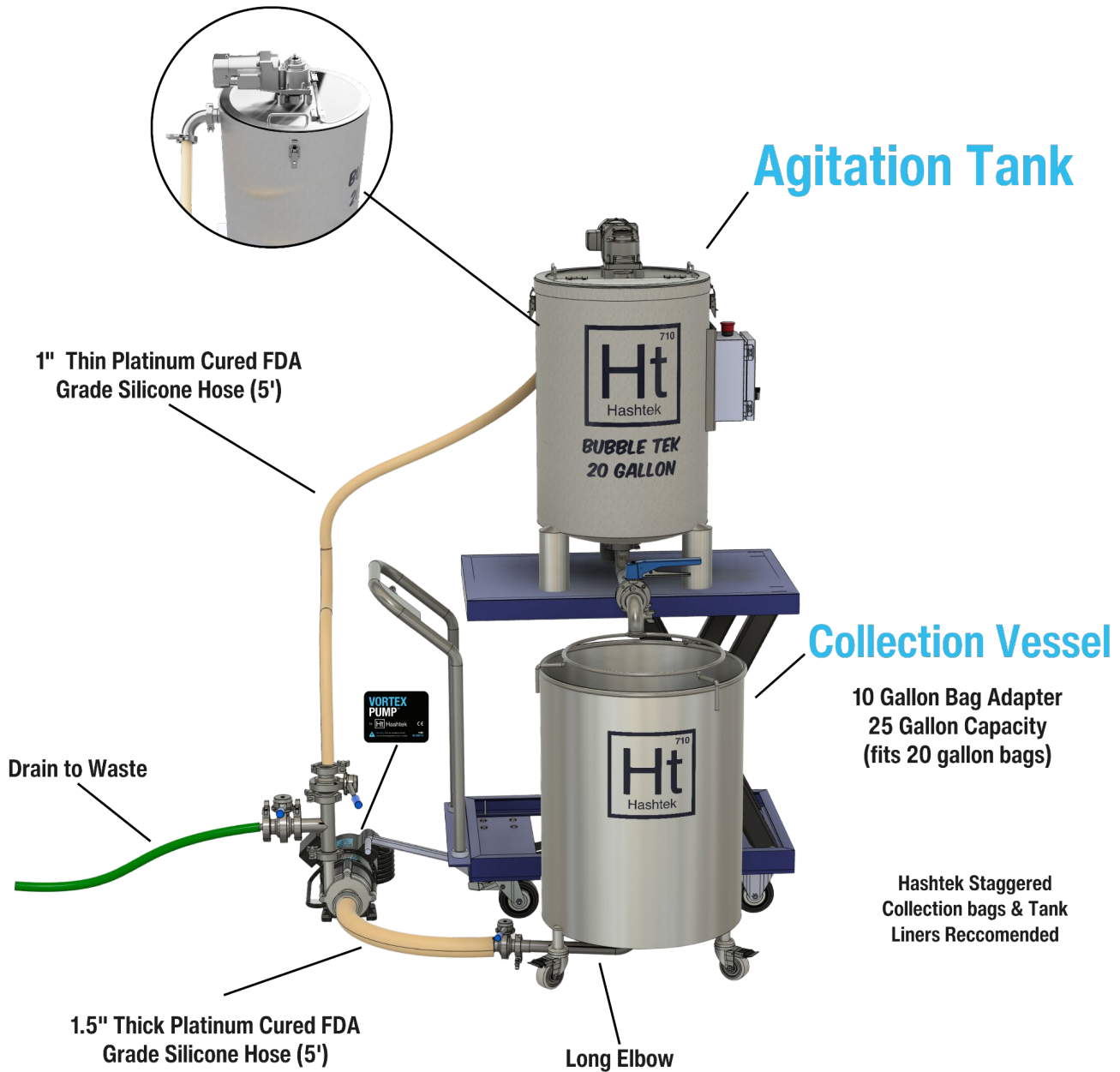
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SETUP DIAGRAM



SETUP LEGENDARY MINI BUNDLE

This manual covers both standalone BubbleTek units and the Legendary Mini Bundle.



GLOSSARY & TERMS

- **Agitation** – The mixing action that separates trichome heads from plant material.
- **Analog Control 2.1** – Dual-dial interface that adjusts wash intensity automatically, scaling speed, ramp, and pause times.
- **Check Valve** – Prevents water backflow in the recirculation line.
- **E-Stop (Emergency Stop)** – Safety button that immediately shuts off the motor.
- **Fresh Frozen (FF)** – Plant material frozen immediately after harvest, typically processed without drying.
- **Mesh Basket (500 µ)** – Stainless steel basket inside the BubbleTek tank that replaces work bags in the agitation tank, enabling free-flow agitation
- **Micron (µ)** – Unit of measurement for mesh or filter pore size.
- **Recirculation Inlet** – Port allowing chilled water to circulate through the system during washes.
- **Tri-Clamp (TC)** – Sanitary stainless clamp connection used for hoses and fittings.

INTRODUCTION

The Hashtek **BubbleTek** is a compact, high-torque agitator designed for **micro-batch processing**. Built as the smaller sibling of the A-Series, it combines durability with simplicity, making it ideal for:

- Gentle trichome extraction from cannabis
- Lupulin separation from hops
- Other small-scale botanical or R&D applications

BubbleTek uses a **Mesh Basket (500µ)** instead of work bags, supporting free-flow agitation and easier cleanup. With a capacity of **~5 kg fresh frozen** (or ~1 kg dry material), it's perfect for home enthusiasts or professionals running pheno hunts and test batches.

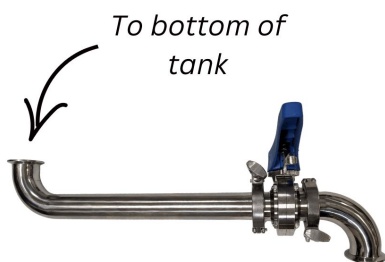
SAFETY

- **Keep hands and tools out** of the tank while the agitator is operating. 🖐️
- **Electrical:** Runs on standard 115V power. Always plug into a grounded outlet. Avoid GFCI outlets where possible, as VFD systems can cause nuisance trips. ⚡
- **Emergency Stop (E-Stop):** In case of emergency, press the red E-Stop button. To restart, **the unit must be unplugged and plugged back in once safe to do so**.
- **Water Safety:** Operate in a dry, controlled space. Prevent puddles around outlets and connections. 💧
- **Cold Hazard:** Avoid direct skin contact with ice water to prevent frostbite. ❄️
- **Lifting:** Place the unit on a sturdy table or lift cart. Use proper lifting posture when handling tanks or moving the unit.

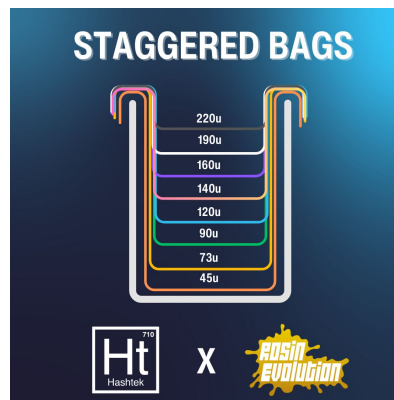


QUICK START GUIDE

Long Elbow Kit

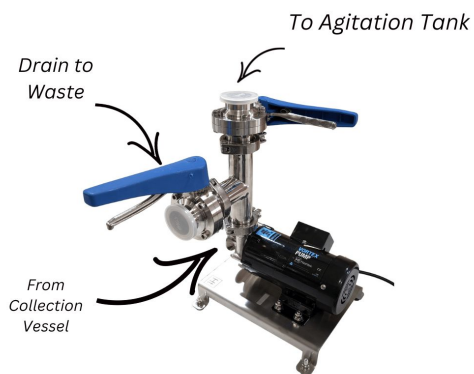


Recommended Bags

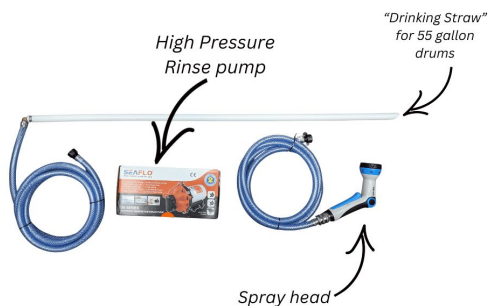


Long elbow is used for both the BubbleTek and for the Collection Vessel.

Recirc Pump Kit



Rinse Pump Kit



The Rinse Pump Kit is available on our website. Our Epic Bundles upgrade this further by shipping with a Tri-Clamp Tee Kit in place of the standard 55-gal drum connection.

SETUP & FIRST USE

Power Requirements

- **115V Power:** Operates on 110–120V, 60 Hz at ~3A, suitable for most North American outlets.
- **230V Power:** Units can also be configured for 220–240V, 50/60 Hz if requested at time of production.
- **Plug Type:** NEMA 5-15 (115V) or NEMA L6-15 / EU Type C (230V).
- **⚠ Note on GFCI Outlets:** The Variable Frequency Drive (VFD) used in BubbleTek may cause nuisance trips on GFCI outlets. Where required by code, consult a licensed electrician for proper installation.

Control Panel Installation

For shipping, the **control panel is often boxed separately** to prevent damage.

1. Position the panel onto the four studs provided.
2. Secure with the supplied **washer** → **lock washer** → **acorn nut** on each stud.
3. Tighten with a **7/16" wrench** (pliers may also be used).
4. Ensure the panel is firmly secured before operation.

Initial Cleaning (Before First Use)

Before your first run, perform a full cleaning cycle:

1. Connect all hoses and fittings using sanitary **Tri-Clamps** (see setup diagram).
2. Perform a quick **visual inspection** and insert mesh basket into the tank.
3. Fill the tank with **clean water**.
4. Add a **diluted OxiClean or peroxide-based cleaner**.
5. Run the **agitator on 50-70% power** for 5–10 minutes to circulate cleaner through the tank and fittings.
6. Rinse thoroughly with fresh water until no cleaner remains.
Allow all components to **fully drain or air dry**.

CONTROLS - ANALOG CONTROL 2.1



Analog Control 2.1

The BubbleTek 20 Gallon features Analog Control 2.1 for maximum performance with simple, intuitive operation. Dual dials—**Speed** and **Intensity**—deliver precise control powered by Hashtek's smart scaling system, built on data from professional A-Series and T-Series users.

Smart Scaling System

- Intensity dial automatically adjusts forward/reverse times and ramp curves.
- Maintains consistent, responsive agitation with no extra programming.

Operation

- **Gentle Agitation:** use lower Speed and Intensity settings; longer forward/reverse cycles and smoother ramps mimic hand-washing.
- **Aggressive Agitation:** higher Speed and Intensity settings; shorter cycles and steeper ramps maximize separation.

Hidden Timer Feature

A built-in timer can auto-stop agitation after a set duration (parameter 04.51 on the red LED screen inside of the control panel).

- **04.51 = 0** (default) → runs continuously.
- **04.51 > 0** → runs for that many minutes, then stops until the ON/OFF switch is cycled. Adjust via the ▲ ▼ buttons inside the panel and press ENTER to save.

Key Takeaway

Set both dials to the same value (e.g., 70%) to mirror Analog Control 2.0 behavior. New users can run them in unison; advanced operators can fine-tune each independently for total precision.

OPERATION - LOADING/AGITATION

Tank & Basket Setup

- Insert the **500 μ stainless mesh basket** into the tank before adding material. Confirm the **long elbow is installed** and the **outflow valve is closed** before loading.

Loading Material

1. **Add Biomass First:** Place plant material directly into the seated mesh basket.
 - Maximum capacity: **~1 kg dry material** or **~5 kg fresh frozen** per run.
2. **Optional Ice:** Add a thin ice layer (1–2") on top of the biomass.
 -  **Note:** Ice is **not required** for effective agitation. In cold rooms, or when using water at $\leq 37^{\circ}\text{F}$ (3°C), agitation can be performed without any ice.
3. **Pre-Soak with Cold Water:**
 - Spray the biomass thoroughly with cold water ($\leq 37^{\circ}\text{F}$ / 3°C).
 - This hydrates dry material and chills fresh frozen material in a single step, eliminating the need for extended soak times.
4. Once the biomass is fully saturated, add the **lid-motor-paddle assembly** on top of the tank. Then secure the clamps.

Agitation

- Begin at a **low setting** and gradually increase as the material hydrates.
- The **Analog 2.0 dial** automatically scales spin time, ramp, and speed to increase intensity on a scale from 0-100.
- Gentle settings mimic handwashing; increase intensity only once the material is fully hydrated to avoid sharding and contamination.

OPERATION - RINSING/REMOVAL

Separation & Drainage

- Open the **outflow valve** to drain water and resin into your collection setup.
- Flow through a **series of bags**: 220 μ $\rightarrow$ 160 μ $\rightarrow$ 140 μ $\rightarrow$ 90 μ $\rightarrow$ 73 μ $\rightarrow$ 45 μ .
- Narrower micron ranges (e.g., 90–140 μ) yield higher-quality resin.
- Maintain steady flow to avoid overfilling or clogging.

Rinsing

- Use the **spray head** to rinse resin into the correct bag.
- Removes foam, fine contaminants, and ensures full resin transfer.
-  *Tip*: Thorough rinsing improves resin clarity and melt quality.

Batch vs. Continuous Runs

- **Batch**: Agitate, then drain and collect before refilling.
- **Continuous**: Drain while agitating; improves efficiency but requires close monitoring.
- **Typical Durations**:
 - Batch cycles: **3–30 min** (10–15 min common)
 - Total time: **30–120 min** depending on desired quality
 - For edible-grade, up to **3 hrs**

Biomass Removal

1. Open the lid and place in the **lid holder** or on a stable table.
2. Remove the **mesh basket** with spent biomass.
3. Dump into waste, rinse basket, and let **air dry**.
 -  Don't worry about stubborn debris while wet; pistils often cling.
 - Easiest to let dry overnight, then tap out the next day.

CLEANING & STORAGE

Daily Cleaning 🧼

- Rinse tank, mesh basket, hoses, and fittings with clean water.
- Run a short cycle with **diluted OxiClean or peroxide cleaner** on Gentle or Medium.
- Drain and rinse until no cleaner remains.

Deep Cleaning

- For buildup, soak stainless parts in **ISO or peroxide-based cleaner**.
- Avoid abrasives that damage stainless or mesh.
- Inspect the basket regularly and replace if worn.

Hose & Fitting Care

- **Hang silicone hoses** on a hook to drip dry.
- For short-term storage, hoses can be filled with diluted **StarSan** and left in place.

Storage

- **Mesh Basket:** Always store outside the tank to dry fully.
- **If lid is on:** Keep the viewing port open to prevent moisture buildup.

Short-Term: Quick rinse; hoses can be left with sanitizer solution.

Long-Term: Disassemble fully; store clean and dry.

TROUBLESHOOTING & TIPS

Issue	Possible Cause	Solution
Excessive Foam	Pump running dry or pulling air	Turn off pump before water level reaches zero; refill tank before restarting.
Pump Not Circulating	Airlock in pump or hoses	Open drain valve briefly to purge air; ensure hoses are fully primed.
Low Flow / Weak Recirc	Clogged bag or restricted hose	Check bags for clogging; clear or swap hoses; reduce flow rate.
Agitator Not Starting	Emergency stop engaged	Unplug the unit and plug it back in
Motor Struggling	Ice overload / water too cold	Break up frozen mass gently with paddle.
Breaker Trips	GFCI outlet nuisance tripping with VFD motor	Use a non-GFCI outlet or consult an electrician for proper wiring.
Excessive slush under basket	Too much ice is being used. Max 1 kg of ice	Water should be pre-chilled and ice in the agitator only used to maintain temp

Tips

- **Start slow:** Gradually increase speed as material hydrates to avoid contamination.
- **Monitor bags:** Check for clogs during recirculation, especially in continuous mode.
- **Outdoor material:** Drain the first wash; refill with clean water for subsequent pulls.

RECOMMENDED PRODUCTS

Product	Image	Purpose	Purchase Link
Weiman Stainless Steel Cleaner and Polish		Keeps tanks looking shiny, removes water stains/fingerprints, prevents oxidation. Leaves a greasy layer, never use on inside of the tank.	Amazon.com Amazon.ca
Bar Keepers Friend		Polishing powder for stainless. Great for removing oxidation if you stored your tank wet. Cleans and passivates your stainless. <i>Strongly recommended for restoring stainless.</i>	Amazon.com Amazon.ca
StarSan Sanitizer		Run a dilute solution through the lines before storage to prevent microbial growth in the hoses. Starsan dilution ratio is 6mL/Gallon for storage we recommend 4ml/Gallon for rinsing through hoses before storage	Amazon.com Amazon.ca
OxiClean		Great for general cleaning of the system or first time cleaning after getting your unit from the Hashtek factory. Can be flushed through hoses and pump. Rinse well	Amazon.com Amazon.ca
Spin Scrubber		Designed for effortless tank cleaning, eliminating the need for heavy scrubbing or manual effort.	Amazon.com Amazon.ca

NOTES

(use sharpie)