



The Hardest Job in Your Factory. Made Simple.

Automated Cleaning for Reflow
Oven Parts & Wave Soldering
Pallets with the SME-5200.





The Unseen Threat to Your Process Control.

Every production cycle, flux residues and contaminants bake onto critical components like reflow oven heat sinks. This buildup isn't just cosmetic—it actively degrades thermal performance, leading to unstable profiles, inconsistent soldering, and increased defect rates.





The High Cost of “Traditional” Cleaning.

Manual cleaning methods or outdated equipment introduce significant risks and inefficiencies into your operation.



Safety Hazard

Traditional solvent-based cleaning creates a constant risk of fire and explosion. Volatile Organic Compounds (VOCs) are a threat to both your people and your EHS compliance record.



Performance Loss

Inconsistent manual cleaning leads to damaged fixtures and unreliable equipment performance. Scrapers and steel brushes destroy the surface of expensive pallets, shortening their lifespan.



Labor Inefficiency

Manual cleaning is a slow, dirty, and undesirable job, tying up valuable technician time that could be spent on higher-value maintenance tasks.

Engineered for Zero Risk. The SME-5200 Pallet Cleaning System.

A fully automatic, heavy-duty cleaning system for wave soldering pallets, reflow oven coolers, and SMT fixtures that delivers exceptional results without compromise. It is designed from the ground up to eliminate hazards, not just manage them.





NO SOLVENTS



WATER-BASED

A Foundational Choice: Water-Based by Design

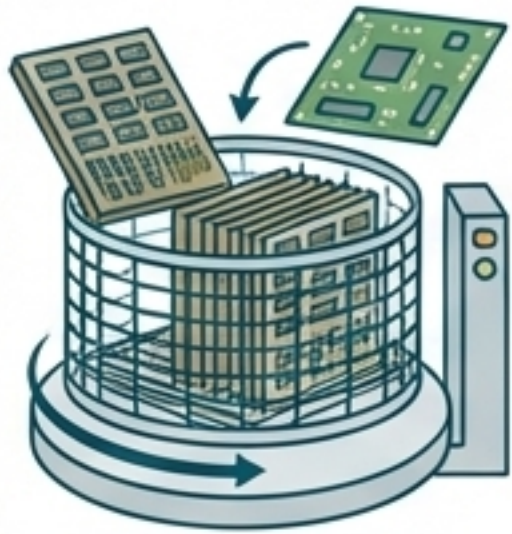
“Volatile organic cleaning solvents are **strictly forbidden** to use on this machine or else it may cause **fire or explosion**.” - SME-5200 User Manual

The SME-5200 is engineered for one chemistry: modern, safe, water-based cleaning agents. By rejecting flammable solvents entirely, we don't just manage risk—we design it out of the equation.

The recommended cleaning agent, ReSolve®CTC-300, is a high-performance aqueous solution with no flash point and is not classified as a health or environmental hazard.

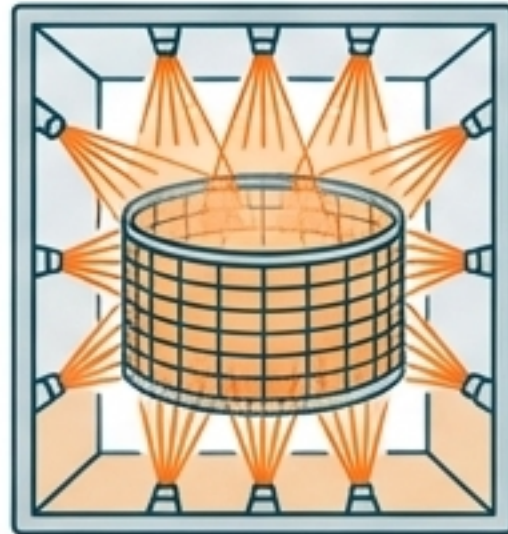
5 Steps to a Perfect Clean: The SME-5200 Process.

1. Load Fixtures



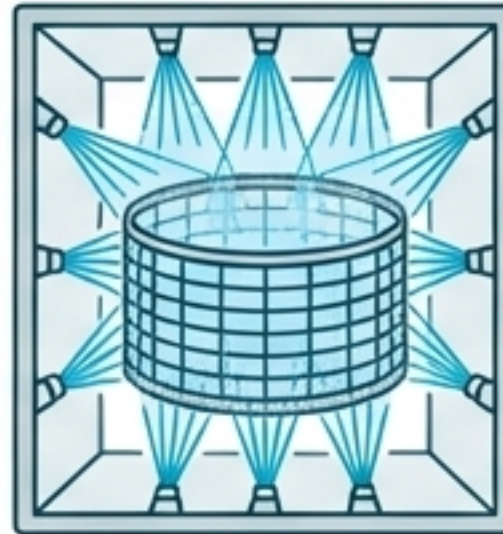
Place contaminated pallets and fixtures into the large (Φ1000mm) rotating basket.

2. High-Pressure Chemical Wash (3-20 min)



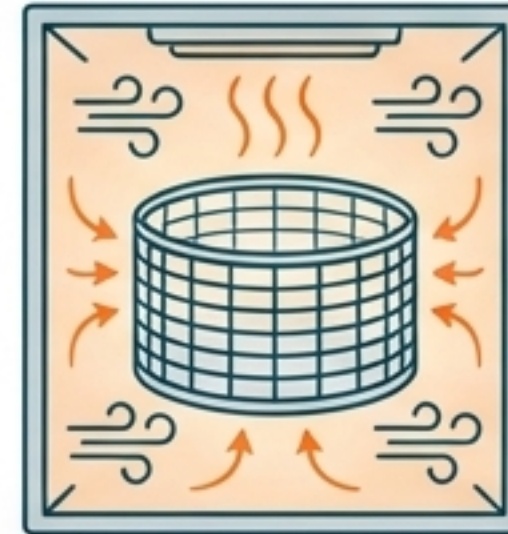
Heated, water-based liquid provides 720° spray coverage, stripping flux and residue.

3. Clear Water Rinse (1-2 min)



A high-pressure rinse with clean, recycled water removes any remaining cleaning agent.

4. Hot Air Dry (10-20 min)



Compressed air and hot air systems work together to ensure fixtures are completely dry.

5. Unload & Use

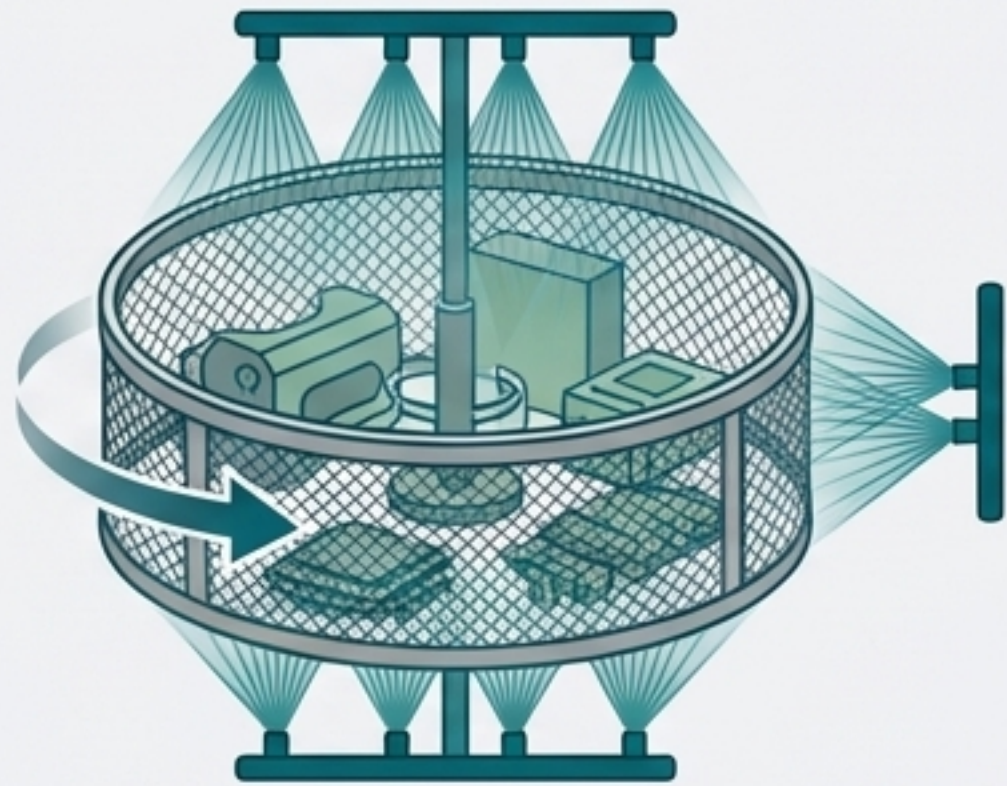


Fixtures are clean, dry, and immediately ready for use in the production line.

Key Takeaway: "A 'one-button operation' that transforms a complex manual task into a repeatable, automated process."

The Technology Behind a Flawless Result

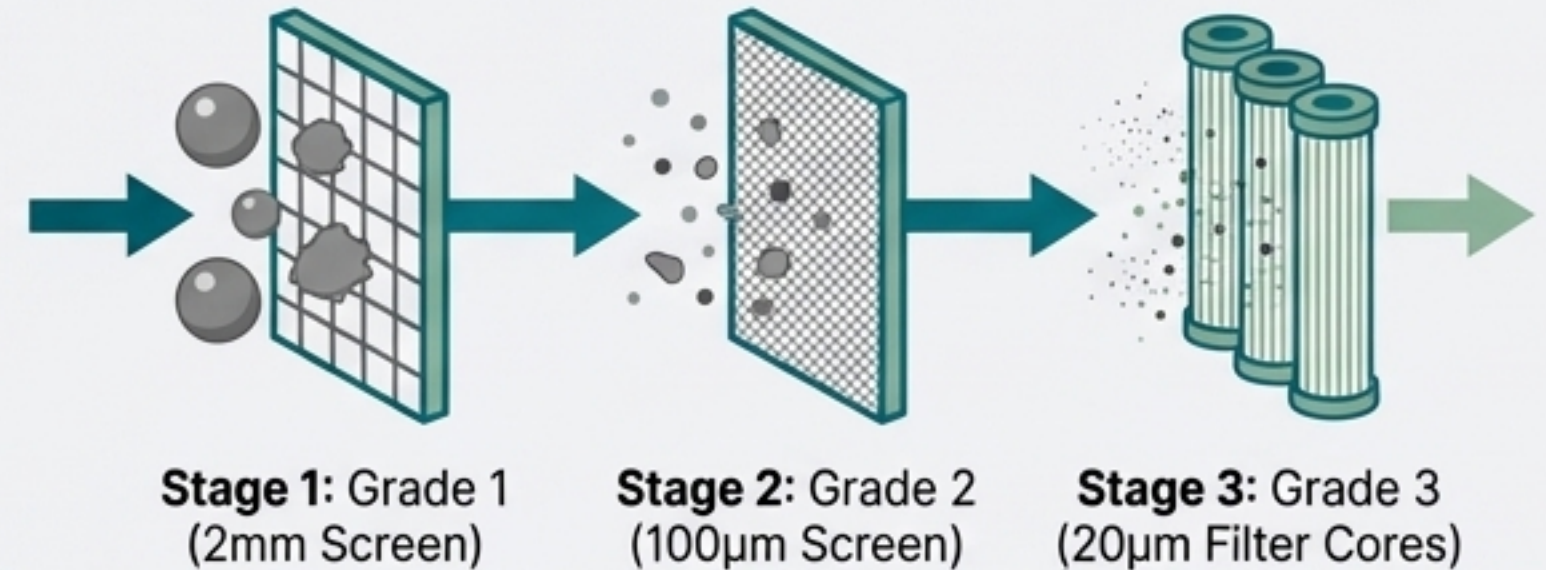
1. 720° Spray Coverage



A large rotating basket and multiple spray rods (upper, lower, and front) ensure the high-pressure liquid curtain reaches every angle, eliminating blind spots and the “shadow effect.”

The basket rotates at a controlled speed (typically 15 RPM) to prevent damage while ensuring uniform exposure.

2. 3-Stage Closed-Loop Filtration



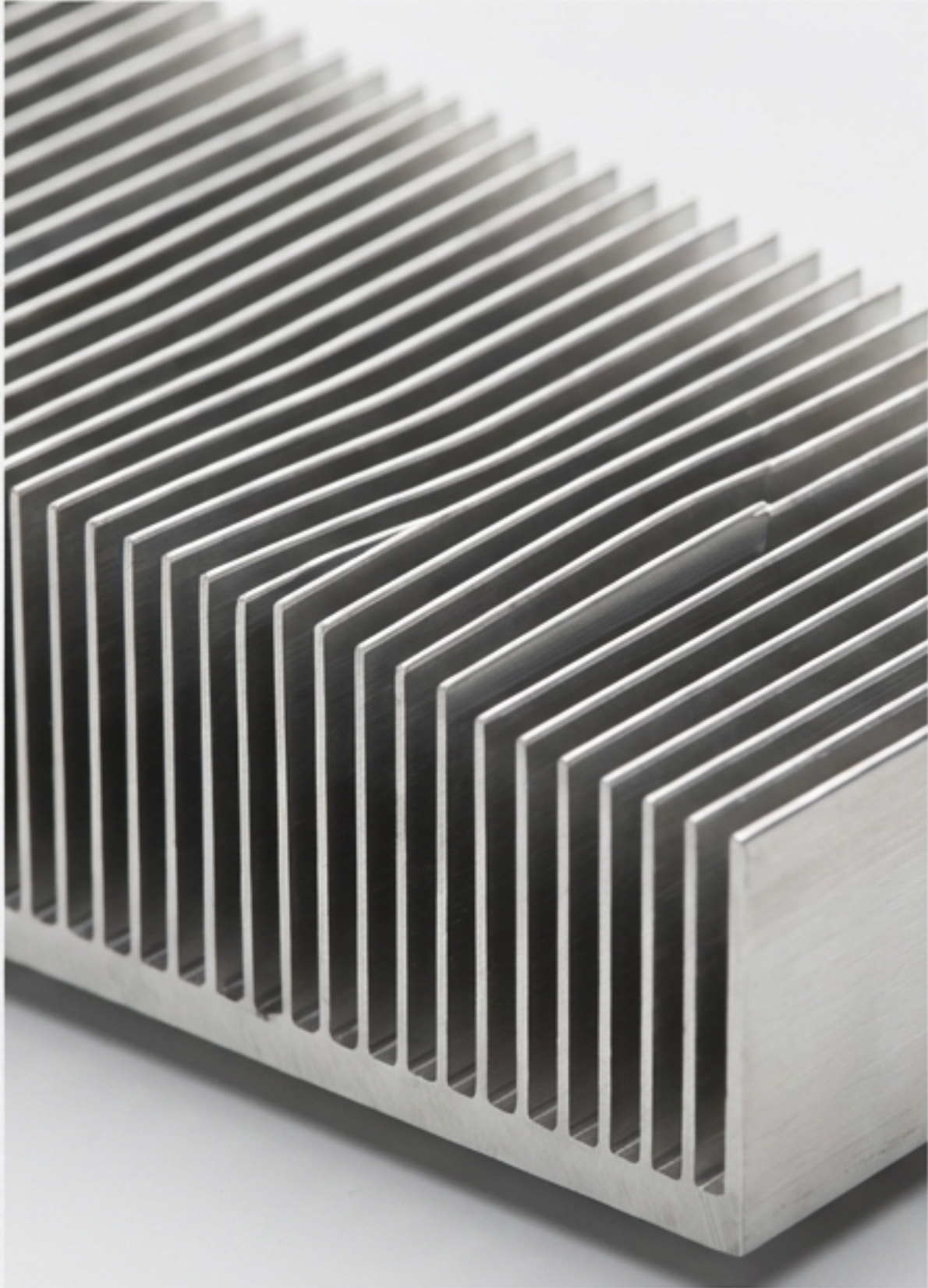
Liquid is continuously filtered to remove contaminants, extending its useful life and protecting your parts from re-contamination.

- Grade 1: 2mm screen (protects pump from large debris like solder balls).
- Grade 2: 100µm screen (filters solid particles).
- Grade 3: 20µm filter cores (removes fine flux and residues).

From Clogged to Pristine. In One Automated Cycle.



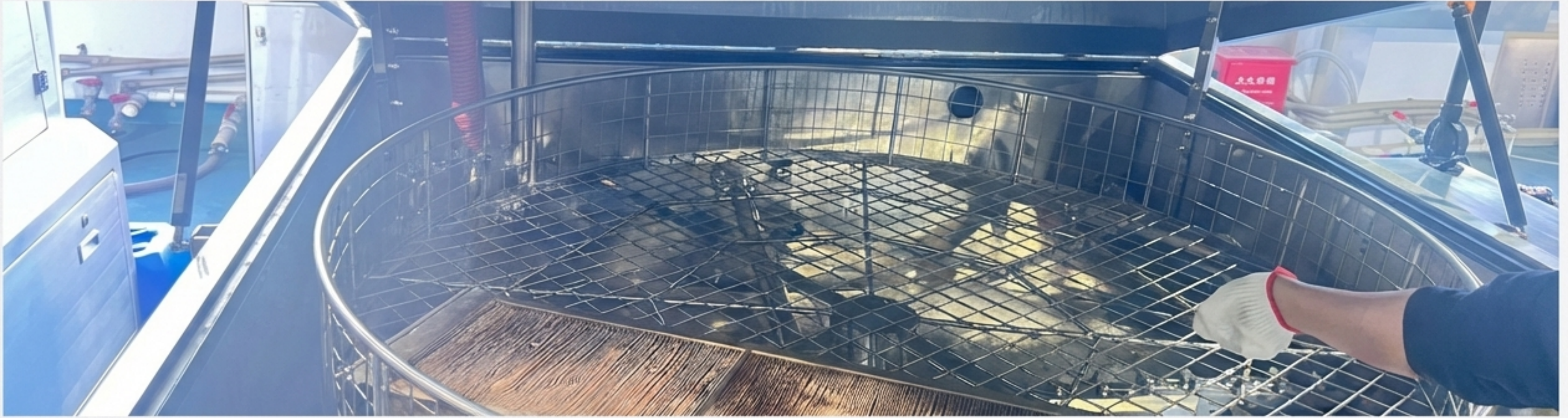
Reflow oven heat exchanger with baked-on flux residue, before and after a standard 30-minute cycle in the SME-5200.



The Result: Restored Performance and Process Stability.





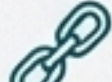

A clean heat sink or pallet isn't the end goal; it's the means to a more stable and efficient production line.

- ✓ **Restored Thermal Efficiency:** Clean heat exchangers ensure stable and accurate reflow oven temperature profiles, reducing solder defects.
- ✓ **Extended Asset Life:** Proper cleaning without physical damage (from scrapers or brushes) dramatically extends the life of expensive pallets and oven parts.
- ✓ **Improved Product Quality:** Clean pallets prevent flux residue from transferring onto PCBs, ensuring higher product reliability.
- ✓ **Reduced Downtime:** Fast, automated cleaning minimizes the time equipment is offline for maintenance.



A Versatile Cleaning Center for Your Entire Facility.

The SME-5200 is engineered to handle the toughest cleaning challenges across your production floor. Its large $\Phi 1000\text{mm}$ basket and powerful spray system are effective on a wide range of parts and contaminants.

-  • Wave Soldering Pallets
-  • Reflow Oven Coolers & Heat Exchangers
-  • SMT Fixtures & Trays
-  • Squeezing Basket
-  • Oven Chains, Claws & Filters
-  • Mis-printed PCBs and Squeegees

Built for Durability. Designed for Your Factory Floor.

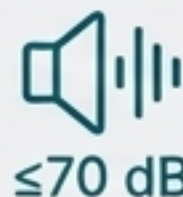


SUS304 Stainless Steel Construction: The entire machine structure, piping, and tanks are made of SUS304 for long-term resistance to acid and alkali corrosion.



Intelligent Safety Controls: A suite of sensors provides proactive protection:

- ▶ **Door Safety Sensor:** Stops the machine immediately if the door is opened.
- ▶ **Tank Level Sensors:** Protect pumps from running dry and prevent overflows.
- ▶ **Heater Overheat Protection:** Prevents thermal runaway.
- ▶ **Pressure Limits:** Alarms trigger for low or high pressure to protect the system.

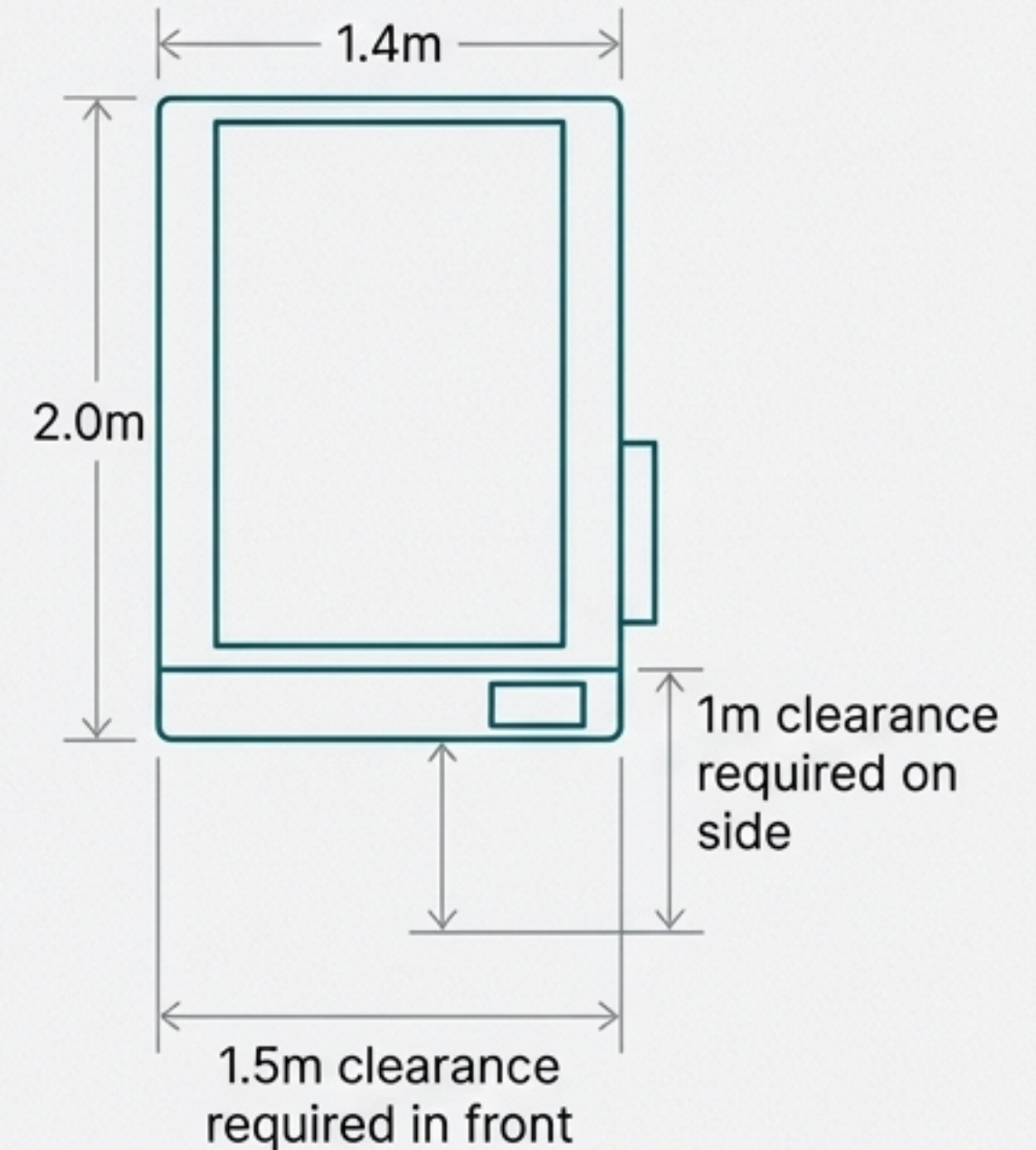


≤70 dB

Low-Noise Operation: Sound-proof cotton keeps noise levels at or below 70 dB, improving the work environment.

SME-5200: Key Specifications at a Glance.

Specification	Value
Basket Size ($\Phi \times H$)	$\Phi 1000\text{mm} \times 200\text{mm}$ (Custom sizes available)
Liquid Tank Capacity	80 Liters
Rinse Tank Capacity	80 Liters
Total Power	~33KW (3-phase 380V, 63A)
Air Supply	0.5-0.7 Mpa, 400~600 L/Min
Noise Level	≤ 70 dB
Filtration Accuracy	20 μm (Final Stage)
Control System	Mitsubishi PLC
Machine Footprint	~1.4m x 2.0m
Standard Warranty	One year from installation



The Strategic Advantage of the SME-5200.



Uncompromising Performance

Delivers superior, repeatable cleaning results for complex fixtures and heavy residues, restoring equipment to its peak operational state.



Eliminated Fire Risk

Inherently safe by design through the mandatory use of non-flammable, water-based chemistry, protecting your people and your facility.



Automated Efficiency

Transforms a time-consuming, manual process into a fast, one-touch automated cycle, freeing up valuable technician time and increasing throughput.

