

# SME-5200 Pallet Cleaning Machine: Test Report

Validated Performance for  
Schneider Electric Manufacturing

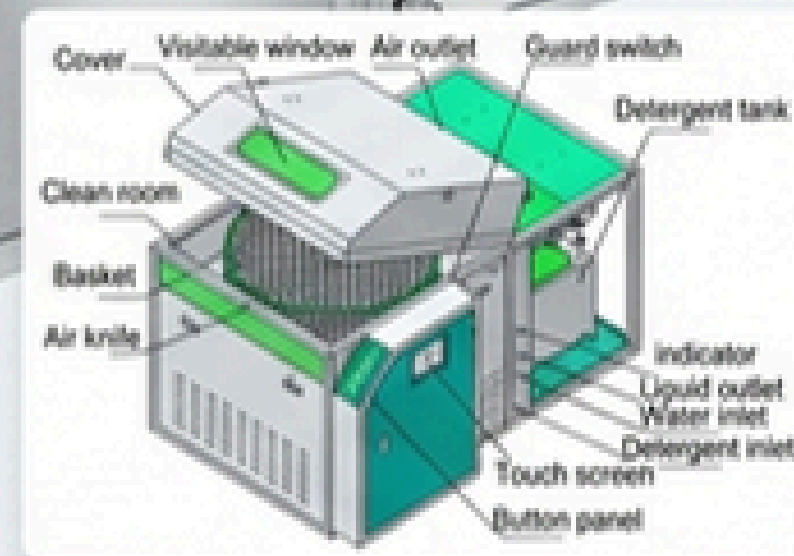




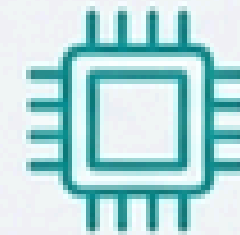
# The Real Cost of Contamination

- Compromised Solder Quality
- Production Halts & Rework
- Increased Maintenance Cycles

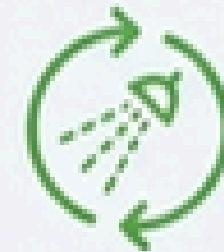
# The SME-5200: Engineered for the Modern EMS Factory



**Total SUS304 Construction:** Built for chemical resistance and long-term durability.



**Premium Brand Components:** Mitsubishi PLC, Schneider Contactors, OMRON Power Supply.

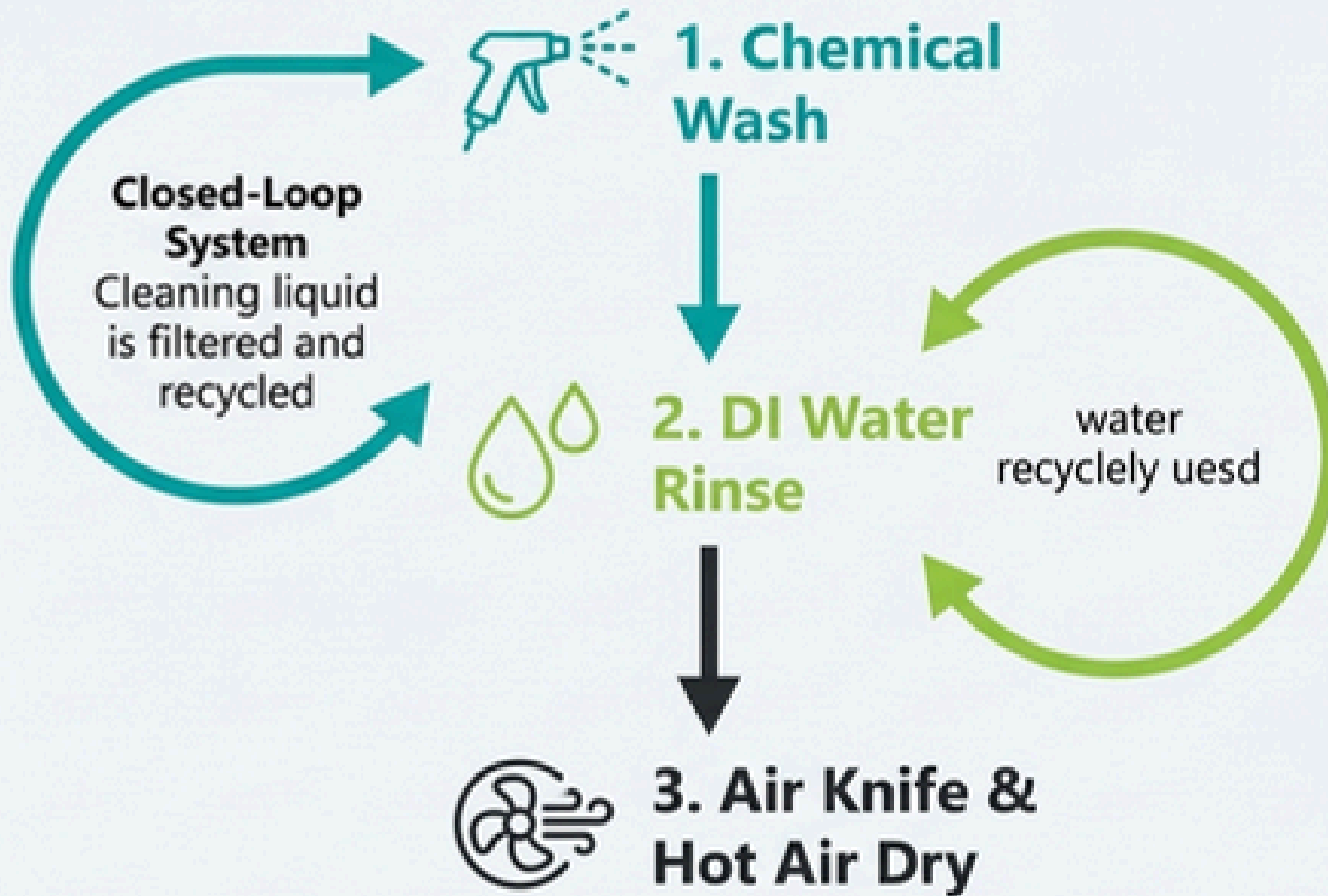


**720° Spray Coverage:** Top, bottom, and front nozzles ensure no blind spots.



**Fully Automated Process:** Load, select procedure, and press start.

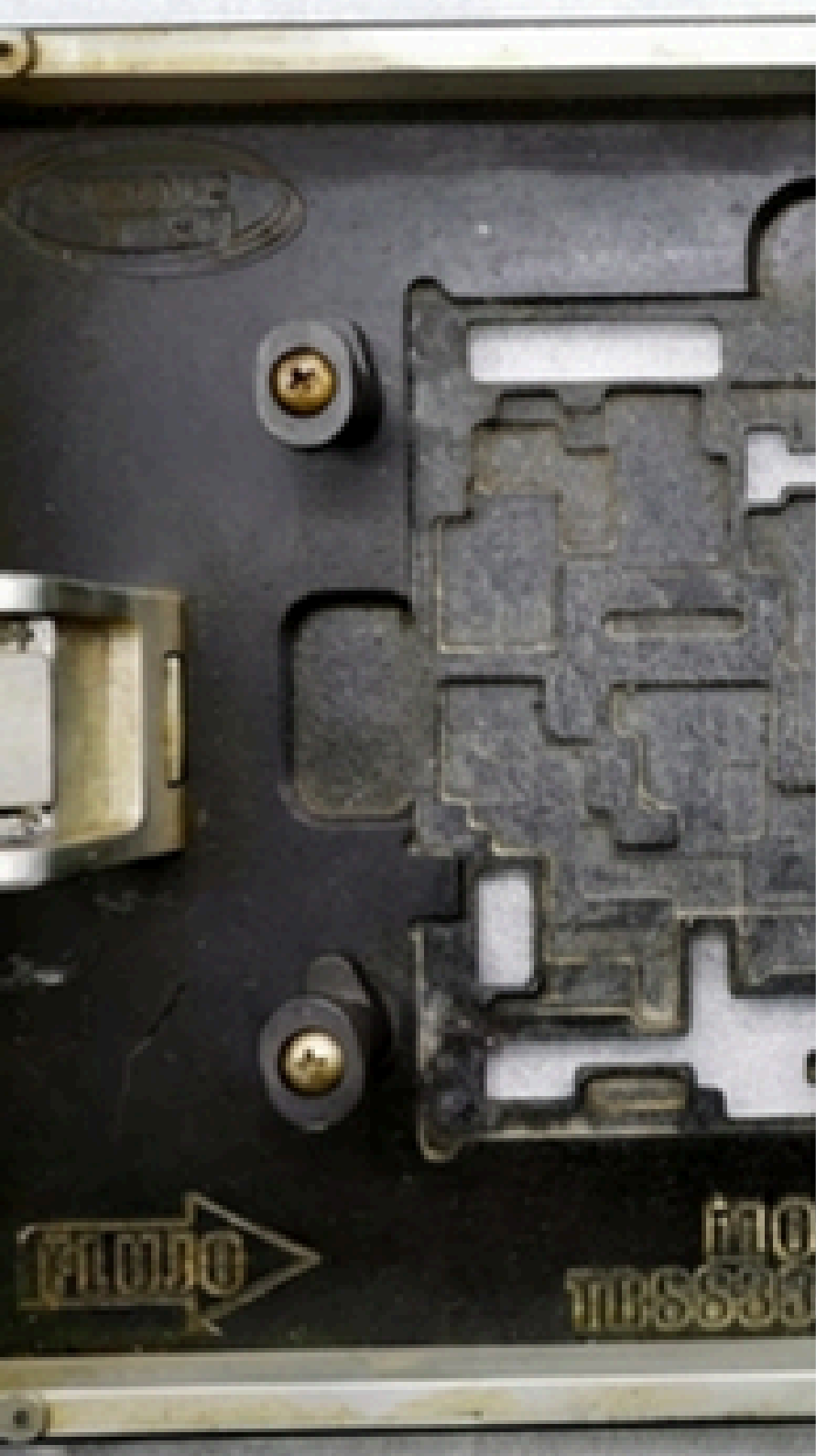
# A Smarter Workflow for Perfect Results



**Closed-Loop System:** Cleaning liquid and DI water are filtered and recycled, reducing consumption.

**Advanced 3-Stage Filtration:** Maximizes chemical lifespan with 2mm, 100um, and 20um filters, significantly reducing operational cost.

**Production-Ready Drying:** A combination of compressed air cut and hot air ensures pallets are immediately ready for the line.



# The Schneider Challenge: Heavy Flux Contamination

## Test Subject:

Schneider Electric Reflow Pallets & Hold-downs

## Contaminant:

Heavy, baked-on flux residues from a live production environment.

## Cleaning Agent:

CenterLab CTC-300 Microemulsion Flux Remover.



# Pallet Cleaning Parameters

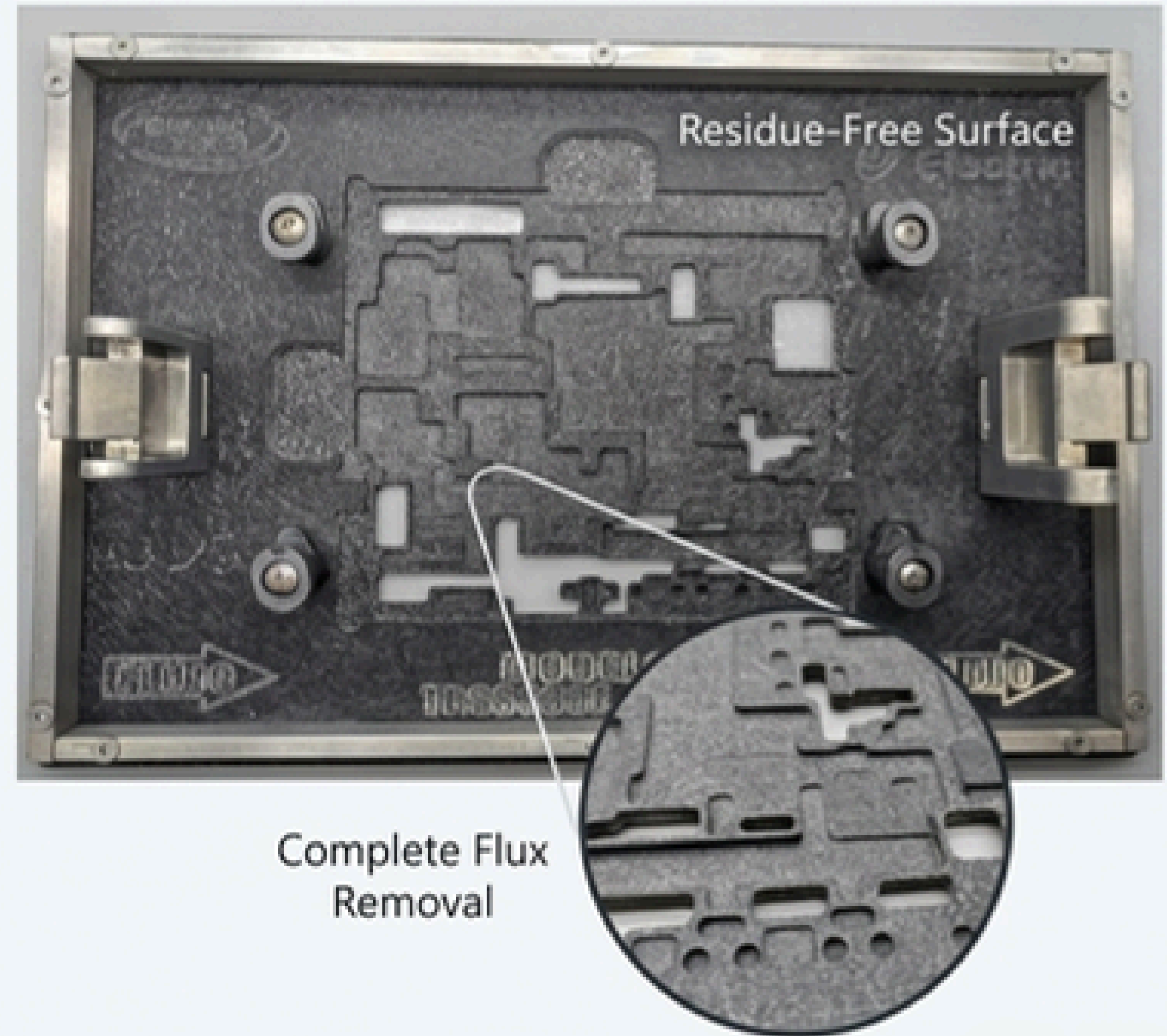
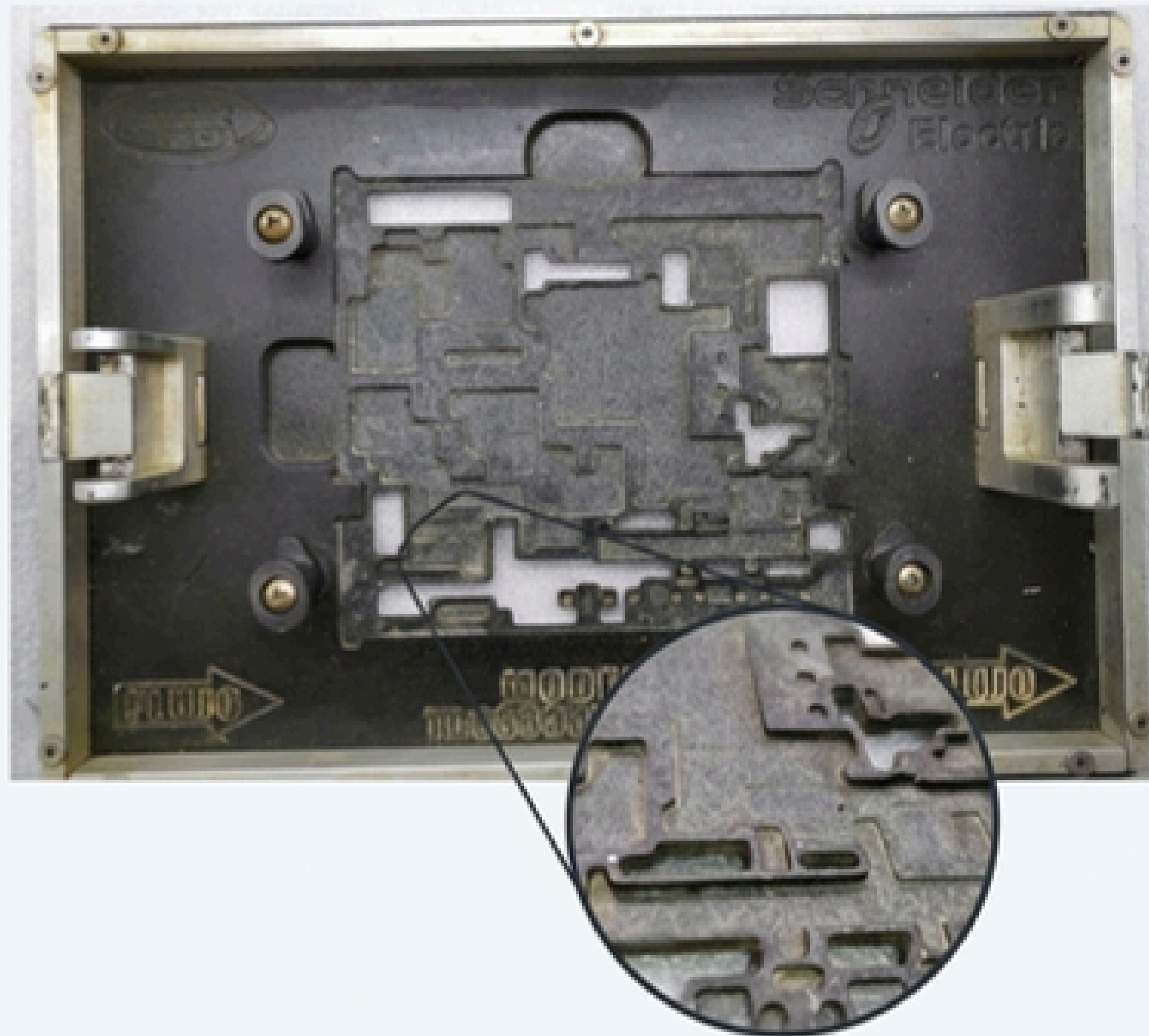
**Clean Cycle** 600s | 50°C | 20% CTC-300

**Rinse Cycle** 120s | 30°C | DI Water

**Dry Cycle** 720s | 80°C | Hot Air Knife

**Rotation Speed** 15 r/min

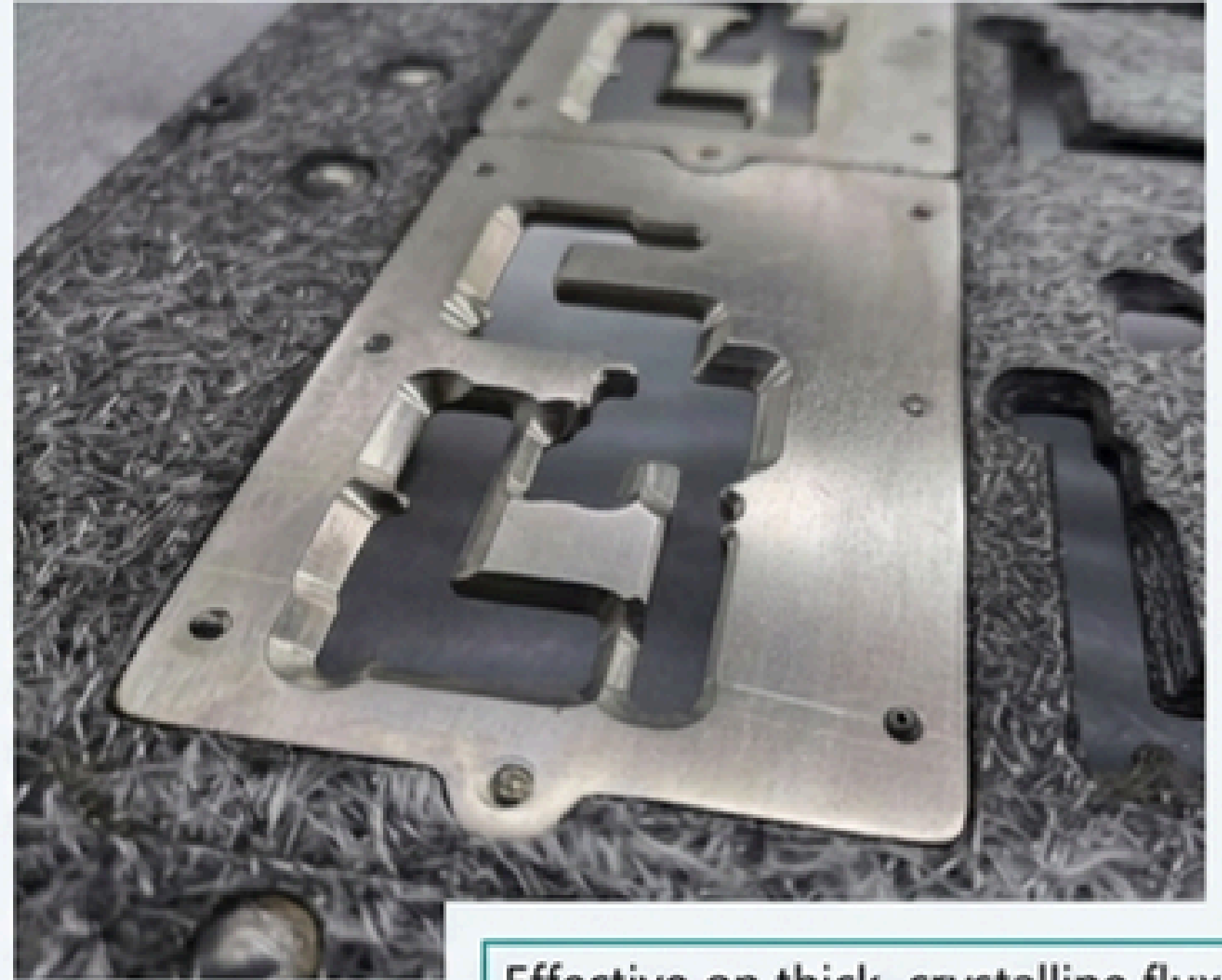
# Pallet 1: Before & After Transformation



# Pallet 3: Tackling Extreme Contamination



**BEFORE**



**AFTER**

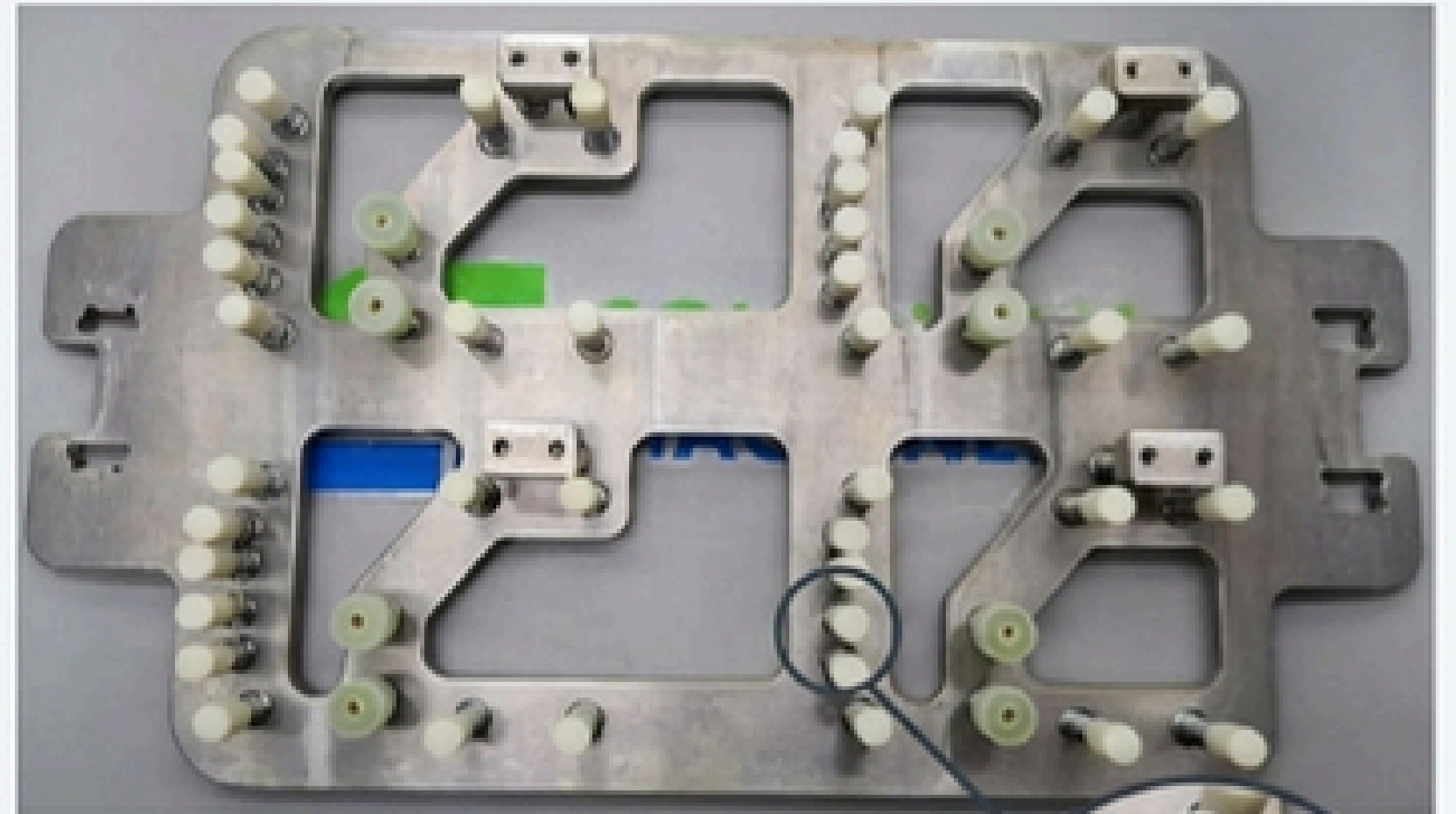
Effective on thick, crystalline flux build-up that other methods fail to remove.

# Precision Cleaning for Complex Components

BEFORE



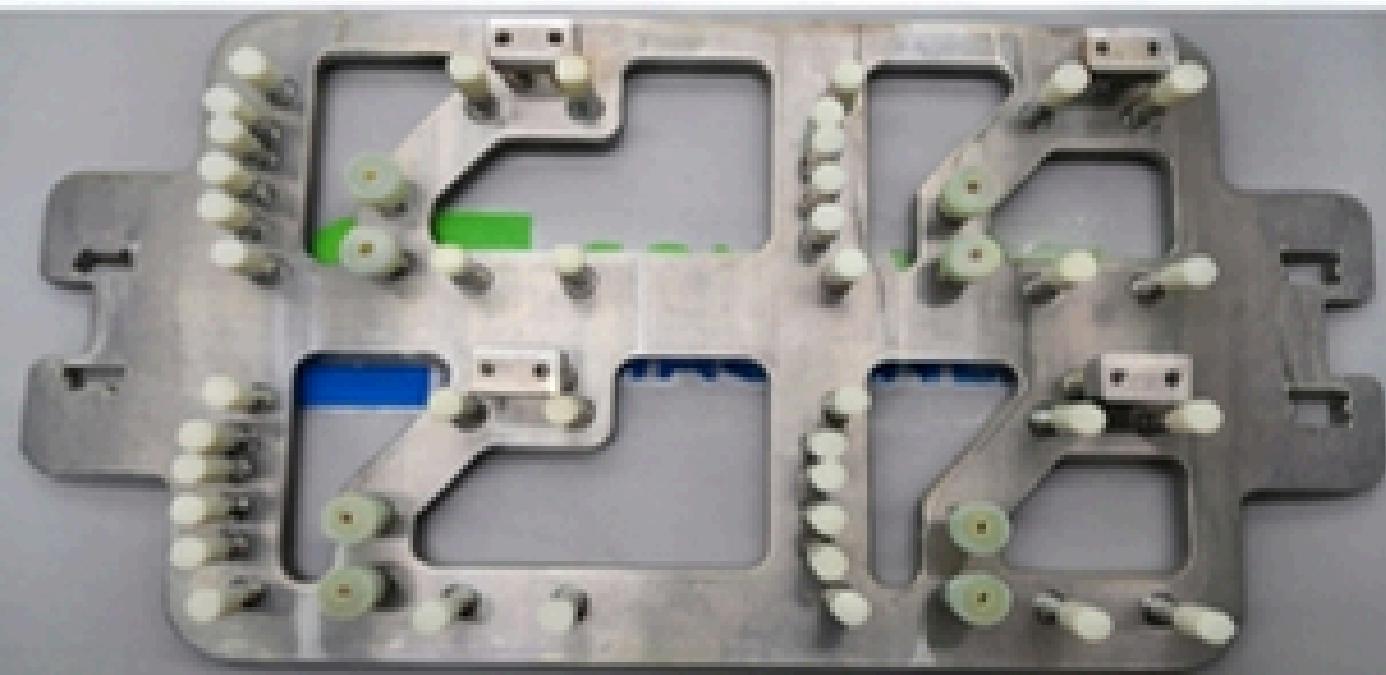
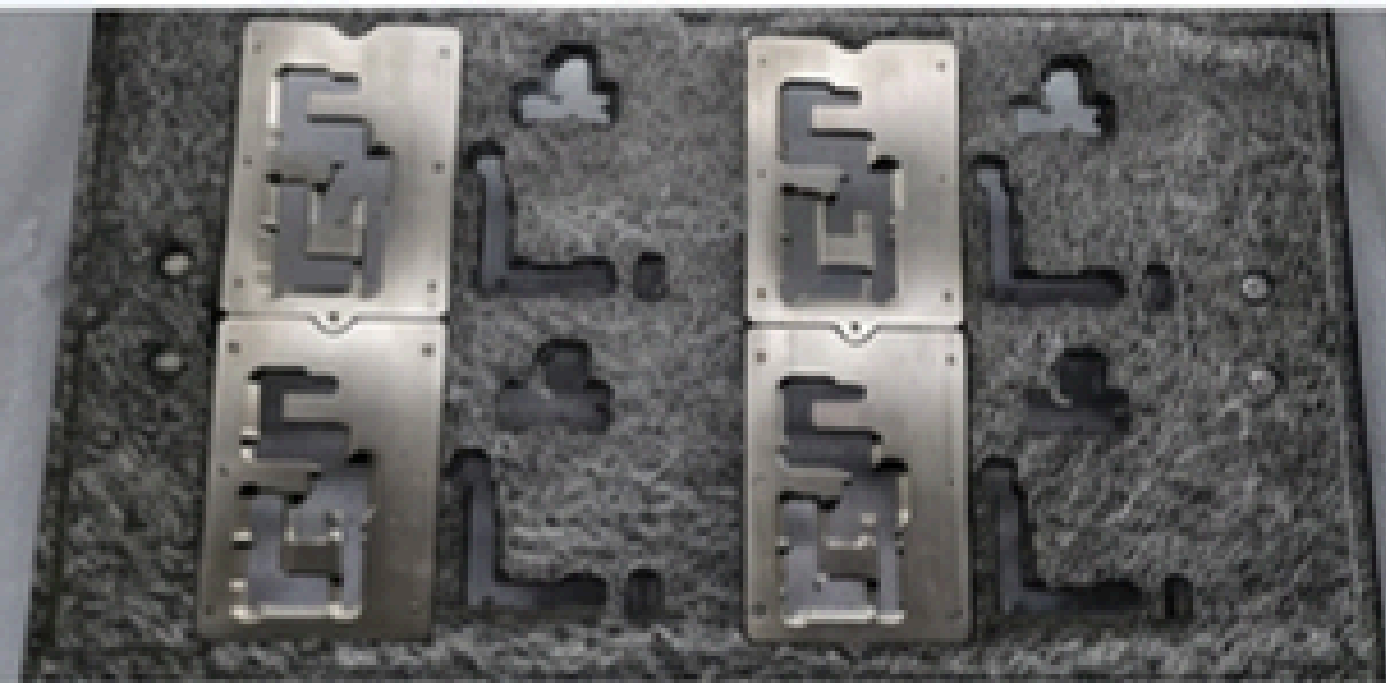
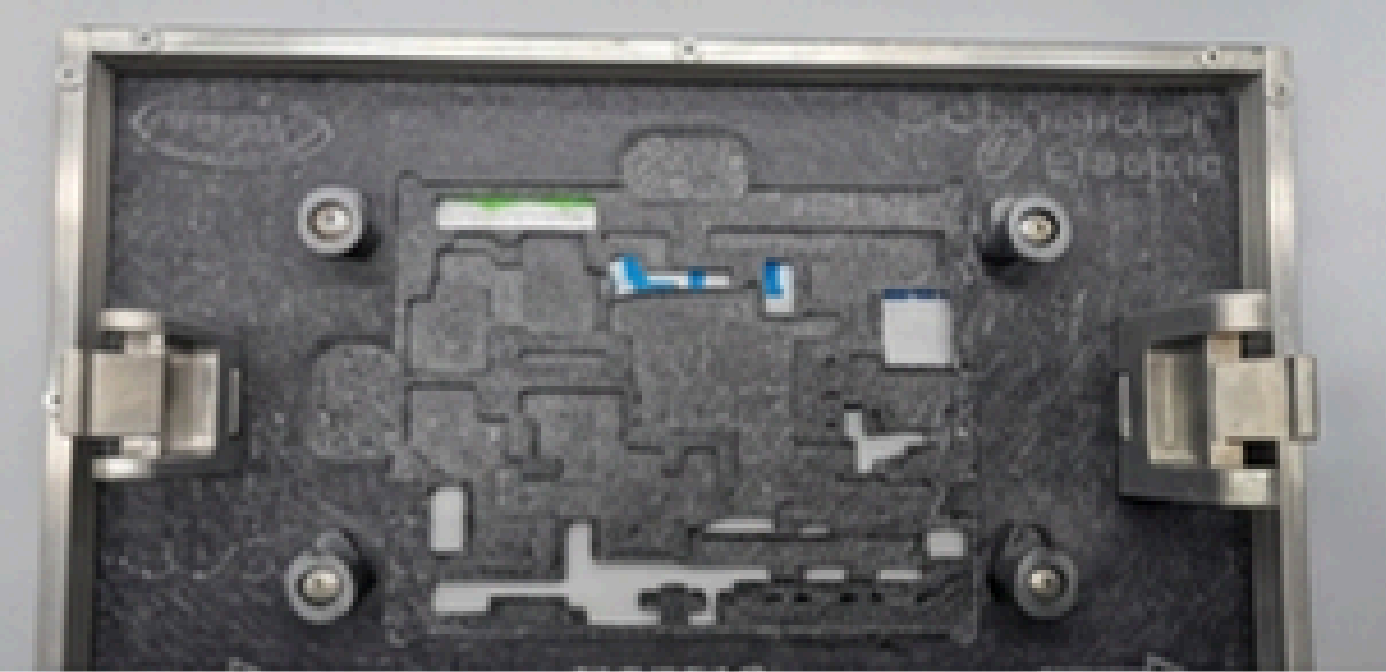
AFTER



## Key Insight:

A separate, optimized cleaning cycle was used for delicate hardware, demonstrating process flexibility.

- Clean Time: 300 seconds
- Dry Time: 600 seconds



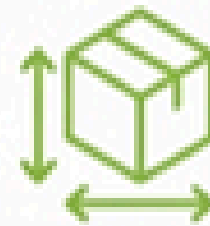
# The Verdict: Complete Flux Removal & Process Efficiency

- ✓ **Effective:** "Completely removed the flux residues from most of the pallets."
- ✓ **Cost-Saving:** The 3-stage filtration system allows for extended chemical reuse. "CTC-300 has been used more than 1 week and over 15 times, but the cleaning result is perfect."
- ✓ **Restorative Finish:** "Significantly improved the cosmetic of the pallets giving them a bright finishing."
- ✓ **Repeatable:** Consistent, high-quality results are achievable across multiple pallet types and contamination levels.

# SME-5200: At a Glance



**Cleaning Basket Size:**  
ø1000 mm x H200mm



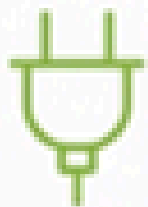
**Machine Footprint:**  
1380mm (L) x 2000mm (W) x  
1400mm (H)



**Tank Capacity:**  
80L Clean / 80L Rinse



**Filtration (Clean):**  
Grade 1: 2mm screen →  
Grade 2: 100um screen →  
Grade 3: 20um filter core



**Power (Normal Op.):**  
~13 KW



# **Schedule Your Own Pallet Cleaning Test.**

See the results on *your* parts.

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**See it in action:** YouTube - Search 'Auto Insertion'