PCB Cleaner for SMT Lines / Dual-Brush Cleaning Model

UNITECH ユニテク株式会社

UC-250BV

Dual-Brush & Vacuum Cleaning System

Designed exclusively for Dual-Brush and vacuum cleaning, the UC-250BV effectively removes dust and foreign particles from PCB surfaces. It helps improve printing quality and reduces unexpected production issues caused by contamination in SMT production lines.

Cleaning Process

This brush-type cleaning system features two counter-rotating cleaning brushes positioned on either side of a central vacuum unit. The brushes efficiently gather contaminants from the PCB surface toward the center, where they are instantly removed by the vacuum. By effectively eliminating fine particles, the system helps improve printing quality, reduce mounting defects, and ensure stable production line operation.

①	Left Brush (CCW) → Sweeps particles toward the center	The left rotating brush sweeps foreign particles on the PCB surface toward the central vacuum.
②	Center Vacuum → Instantly suctions & collects particles	The central vacuum instantly suctions and collects the foreign particles gathered by the left and right brushes.
③	Right Brush (CW) → Sweeps particles toward the center	The right rotating brush sweeps foreign particles on the PCB surface toward the central vacuum.

Key Features

■ **Advanced PCB Cleaning with Dual-Brush & Central Vacuum**

Counter-rotating brushes efficiently remove contaminants from the PCB surface and direct them to the central vacuum system for instant collection. By effectively eliminating fine particles, the system helps ensure stable printing quality, reduce mounting defects, and contribute to stable production line operation.

■ **Simple Structure for Stable Operation and Easy Maintenance**

The simple design, with no rubber rollers or adhesive tape mechanisms, minimizes routine care and reduces the maintenance workload.

■ **Gentle on PCBs: Low-Impact Cleaning with Soft Brushes**

The brushes feature a highly flexible, soft material that protects the PCB surface while ensuring stable cleaning performance.

■ **Standard Ionizers at Inlet and Outlet**

Static elimination at both the inlet and outlet ensures high-reliability mounting, helping reduce quality risks across the entire SMT line.



Brush Material Options

The UC-250BV offers a choice of two types of conductive cleaning brushes to suit different applications.

Mono Eight Brush Material: Conductive Nylon	Conductive carbon coating minimizes static electricity. High cleaning efficiency. Excellent durability. Suitable for general PCB cleaning applications.
Thunderon Brush Material: Conductive Acrylic Fiber	Excellent static electricity dissipation. Ideal for applications requiring strict ESD protection. Soft fibers minimize the risk of scratching PCBs.

Mono Eight brushes are supplied as standard. Thunderon brushes are available as an option.

Basic specifications:Model No.UC-250BV

Cleaning area	Top side of PCB *except slit inside
Cleaning method	Conductive rotary brushes + high-efficiency vacuum unit
Cleaning Brushes	2 conductive rotary brushes + high-efficiency vacuum unit
Applicable PCB Size	Width: 50.0 - 250.0mm Length: 100.0 - 330.0mm Thickness: 0.5 - 2.0mm * PCB thickness adjustable system as option
Conveyor height	900±25 ㎜ *Negotiable
PCB flow direction	Right to Left or Left to Right *Specify
Conveyor fixed side	Front or Rear *Specify
Conveyor width	Manual *handle operation, or Auto mode as option
Conveyor speed	0 - 7.5m/min *Variable
Ionizer (Air knife)	Machine inlet and outlet (with air-blow)
PCB support system	PCB anti-warp support brush system attached inside the machine
PCB counter	0-999999 as max
Buzzer	ON when count-up or machine occur error
Signal tower	Red as standard
Power supply	AC100V as standard *Negotiable
Air input	0.45 ～ 0.6Mpa φ6 for General 0.45 ～ 0.6Mpa φ10 for Vacuum

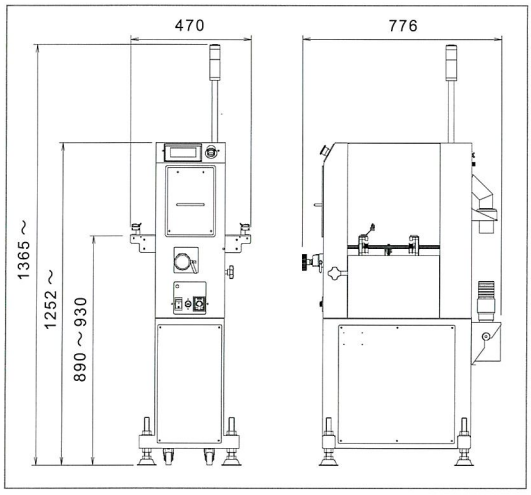
■[Key Optional Features]

・Automatic conveyor width adjustment mechanism. ・Custom machine color options.
・Signal tower (3-color display with configurable lighting conditions).
・Top and Bottom Brushes for Inlet Unit (with Additional Bottom Brush). ・Conveyor Extension. ・Conveyor Dust Cover
・External communication capabilities (Integration with MES and line management systems).

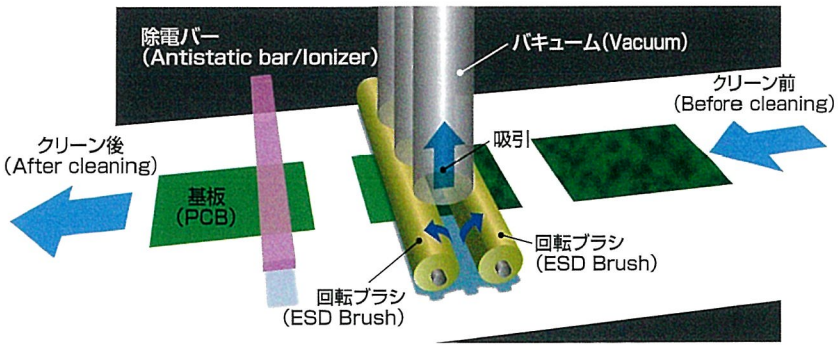
[Lineup Variations]

・Depending on your application, the following models are also available in our lineup:
・Double-sided (top/bottom) PCB cleaning model. ・Large PCB compatible model.
・Dual Conveyor Model (Compatible with major mounter manufacturers).
・Detailed documentation and demonstration units are available for each machine.

We also offer flexible customization to meet your specific requirements and applications.
For more details, please contact our sales representatives.



PCB Conveying Process



Safety precautions! | **Please read the instruction manual carefully before use,and use it correctly.**

Specifications listed in this catalog are subject to change without prior notice for improvement purposes. Your understanding is appreciated in advance.

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