

# Model 121 Surface Cleaner



**Model 121 Surface Cleaner for printed circuit board cleaning and finishing.** Chemcut's Model 121 Surface Cleaner features wet, oscillating, abrasive brushes for fast, uniform cleaning of panels. Consistent results for first panel to last. And rugged construction plus state of the art engineering ensure quiet, trouble free operation with minimum maintenance requirements.

## Applications

The Model 121 can be used for the following applications.

Removal of oxides from PC laminates, etched or plated pc boards, metal sheets, and inner layers.

Continuous and uniform surface cleaning prior to application of screen or photoresist, black oxide, plating, solder plating, solder masking or coating.

Removal of residues after etching or stripping.

Finishing, burnishing, polishing and abrading metal for decorative finishes.

## New Performance Advantage Features of the Model 121.

Variable speed mandrels automatically increase wheel speed to compensate for brush wear and maintain a constant surface speed throughout the life of the brushes.

Dual oscillating, indirect-drive, abrasive brushes for fast, uniform cleaning of both work surfaces.

Gauging caliper for initial brush setting accurately and easily adjusts backup roller for material thickness.

Four sets of air knives efficiently distribute filtered hot air to thoroughly dry circuit boards.

Expanded loading and unloading areas ease handling of work and permit usage of automatic loading and unloading equipment.

Quick release machine covers can be removed without special tools.

Optional motorized brush adjustment control permits pushbutton setting of brush position and pressure for proper cleaning operation.

## Standard Features

Fan jet nozzle water rinse provides uniform rinsing of both sides across the entire conveyor width.

Integral turbine blower provides forced air with 3.75 KW of heat.

Reversible, variable speed, heavy-duty, gear-driven conveyor.

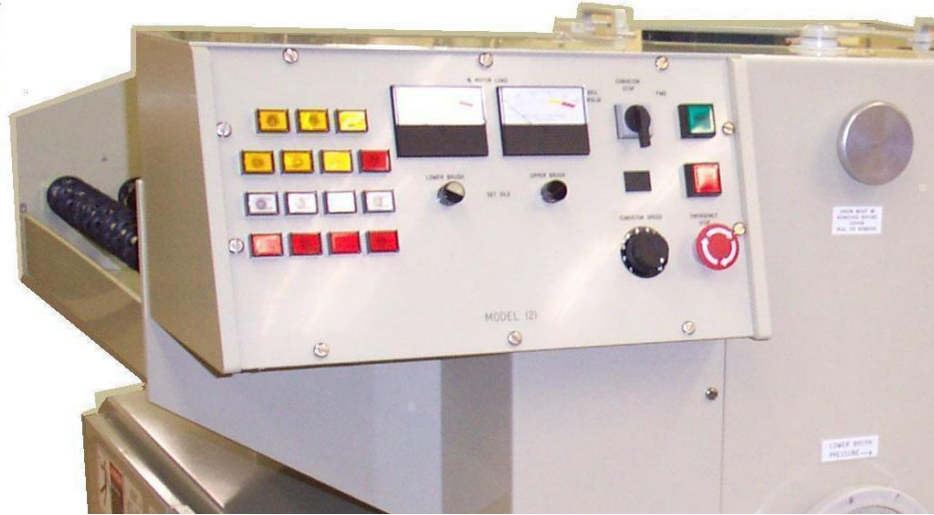
Average sound levels front and rear 78dB.

Construction materials are corrosive resistant and durable.

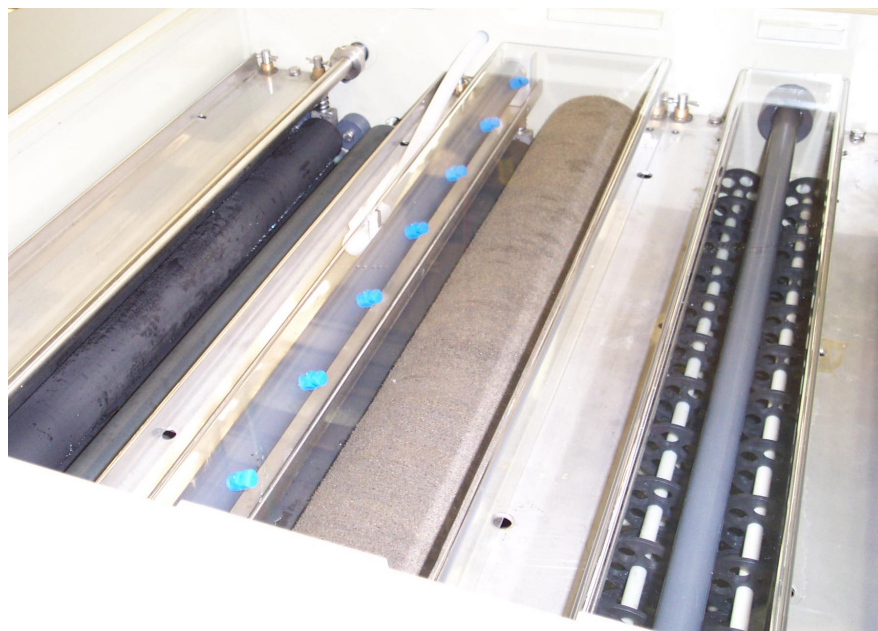
Central lubrication manifold services hard-to-reach lube points.

Brushes are quickly and easily removed for servicing or replacement.

Lid interlock for operator safety.



Integrated control panel and electrical box saves floor space and makes monitoring production easy.



The Model 121 cleans with two wet oscillating abrasive brushes, and rinses with water from fan-jet nozzles.



# Model 121 Surface Cleaner Specifications

## System specifications

### Weight:

- Dry 2,750 lb (1,247 kg)

### Power Requirements:

- Standard Voltages 190-208, 220-240, 380-415, 440-480; 3 phase 50/60 Hz  
Total KVA 15.6

### Water Requirements:

- Cleaning Station Cooling @20 psi 15 gpm (57 liters/min.)

## System Process Specifications

### Cleaning System

- Board Thickness: Minimum 0.005 in. (0.125 mm) mil core, Maximum 0.1875 in (4.76 mm)
- Brush Size: 4 in. (102 mm) O.D. x 24.5 in. (622 mm) long
- Brush Material: Composition or Bristle
- Brush Drive: Two 2 hp AC motors; automatic compensation for brush wear 2200 sfpm
- Oscillation: 0.25 in. (6.35 mm) at 110 cycles/min AC motor

### Conveyor System

- Working width 24 in. (610 mm), Minimum size 4 in. (102 mm) x 7 in. (178 mm)
- Variable speed drive
- Gear-driven conveyor system
- Stainless steel gears
- PVC conveyor wheels

### Drying System

- Drying speed range: 5 ft/min. (1.53 m/min) to 8 ft/min (2.44 m/min) depending upon the thickness of the board and hole density Drying
- Drying air temperature Motor: 120°F (48°C) 5 hp air turbine

### Construction Materials

- Stainless steel
- Molded Fiberglass
- Heavy channel steel frame
- PVC

### Sound Level

- Average sound level 78 dBA

### Control Functions

- System Start/Stop
- Emergency Stop
- Brush On/Off (Upper & Lower)
- Brush Pressure
- Dryer On/Off
- Rinse On/Off
- Brush Oscillation On/Off
- Conveyor On/Off/Reverse
- Conveyor Speed Adjustment

### Options

- Motorized control for brush adjustment, Ceramic Backup rolls. Chemcut 906 FB filtering system, Tach Feedback Conveyor Control, Water Pressure Interlock, Brush Load Indicators with Graph Display.



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