CONFORMAL COATING

Coating Line

Inline selective coating, UV curing and inspection

3-YEAR FACTORY WARRANTY

Coating machine C-450 / C-580 / C-700, UV-2000 curing oven and UV inspection conveyor: boards are coated, cured and checked in one line.



450–700	±0.02 mm	5	365 nm
Max. PCB, mm	Positioning X, Y, Z	Valve types	UV curing wavelength

01 / OVERVIEW

Key features

Three servo axes
X, Y and Z with servo motors and ball screws, repeatable positioning accuracy ±0.02 mm.

Clean board transport
Automatic rail pressure plate keeps the coating material away from the transport chain.

No valve clogging
Automatic valve soaking and purging device as standard; quick, easy maintenance.

Programmable process
Nozzle speed, travel and height set per PCBA type; 1000+ programs.

Five valve types
Atomizing, micro atomizing, curtain, dispensing and fine rod valves for 1–1500 cps materials.

UV curing and inspection
UV-2000 oven with 2 × 5 kW lamps at 365 nm, then a UV inspection conveyor for a visual check.

02 / TECHNICAL DATA

Coating machine models

Model	C-450	C-580	C-700
Coating stroke	X 450, Y 450, Z 120 mm	X 580, Y 580, Z 120 mm	X 700, Y 600, Z 120 mm
PCB size	max. 450 × 450 mm	max. 580 × 580 mm	max. 700 × 700 mm
PCB width (conveyor)	50–450 mm, adjustable	on request	on request
Machine size (L × W × H)	1260 × 1400 × 1700 mm	1260 × 1400 × 1700 mm	1260 × 1450 × 1700 mm
Weight		700 kg	

03 / TECHNICAL DATA

Common specification

CONTROL AND CONVEYOR

Control	IPC and motion control card
Programming	Manual teaching, 1000+ programs
Conveyor height	900 ± 20 mm
Conveyor speed	Max. 1000 mm/s
Conveyor direction	L-R standard, R-L option
Transport	Stainless steel chain, stepper motor (AC 220 V, 60 W)
Width adjustment	Automatic, stepper motor

UTILITIES

Power supply	AC 220 V
Total power	Max. 2.5 kW
Compressed air	≥ 0.4 MPa
Weight load	7.5 kg

MOTION SYSTEM

X, Y drive	Mitsubishi servo motor, high-precision screw module
X, Y max. speed	1000 mm/s
Z drive	Mitsubishi servo motor, high-precision screw module
Z max. speed	500 mm/s
Positioning precision	0.02 mm (X, Y, Z)

COATING

Valves	2 cone-type atomizing valves (standard)
Valve synchronisation	Manual adjustment
Coating width	1–30 mm by valve; cone valve 5–12 mm, needle valve 2–5 mm
Material supply	20 L pressure tank
Cleaning	5 L tank, built-in cleaning, waste liquid recovery
Lighting, ESD	White and violet light; ESD connection

04 / VALVES

Five valve types

Model	SN-01	SN-02	SN-03	SN-04	SN-05
Type	Medium atomizing	Needle-type micro atomizing	Curtain	Needle-type dispensing	Fine rod atomizing
Viscosity	≤ 500 cps	1–1500 cps	< 100 cps	≤ 500 cps	1–1500 cps
Output	0.9 L/min	0.1 L/min	Spray angle 70°	0.3 L/min	0.5 L/min
Working air pressure			40–500 psi		
Material supply pressure	90 psi	90 psi	10–200 psi	90 psi	90 psi
Frequency	40–400 cycles/min	40–400 cycles/min	400 cycles/min	40–400 cycles/min	40–400 cycles/min
Edge accuracy	±1.0 mm	±1.0 mm	80 µm	80 µm	±1.5 mm

05 / CURING AND INSPECTION

UV-2000 oven and UV inspection conveyor

UV lamps	2 × 5 kW mercury lamps, arc length 500 mm; flexible lamp selection, independent control.
Wavelength, width	Main wavelength 365 nm; effective irradiation width 420 mm.
Lamp life, cooling	Approx. 800 hours on average; fan delay for lamp cooling after switch-off.
Inspection conveyor	Sheet metal with electrostatic powder coating, weighted for stability; dark-tinted acrylic window against UV light; LED UV lamps make the coating visible for a check of coverage and edges.

06 / LINE

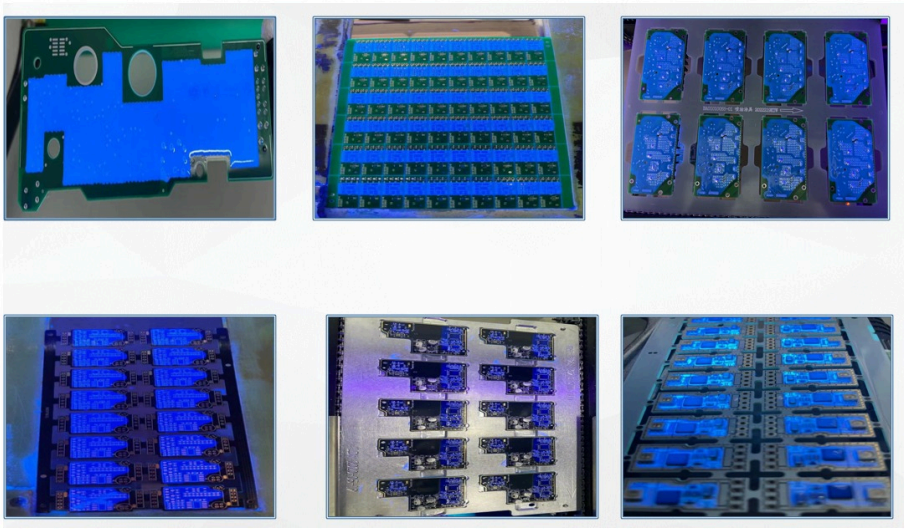
Oven and inspection conveyor



UV-2000 curing oven (left) and UV inspection conveyor (right).

07 / RESULTS

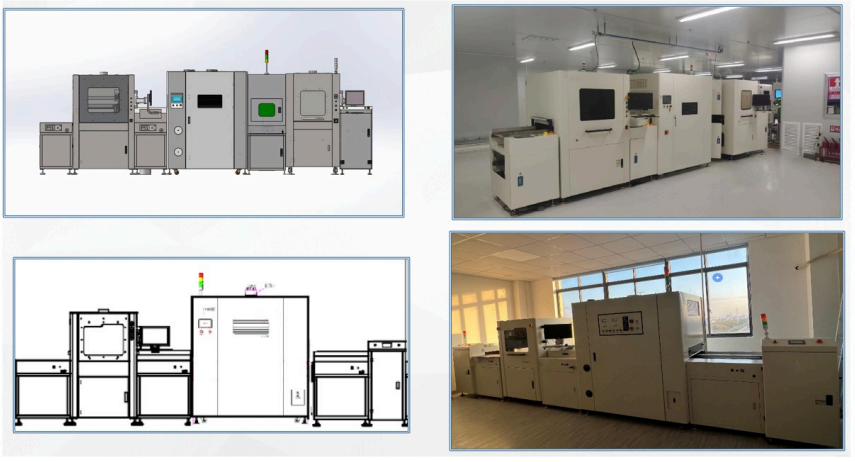
Coating under UV light



Selectively coated boards under UV light: coverage and edges are checked at a glance.

08 / LAYOUTS

Line layouts



Example layouts: coating machine, curing oven and inspection conveyor in one line.

Specifications change with technical development without notice. C-580 / C-700 conveyor width on request.

Configuration and quotation

sales@interelectronic.com

Károly Peics **+36 30 296 45 05** David Peics **+36 30 217 1226**

www.inte-on.com

■ 3-YEAR FACTORY WARRANTY ON INTEON MACHINES