

BACKEND LINE

CURING

OVEN UV MERCURY

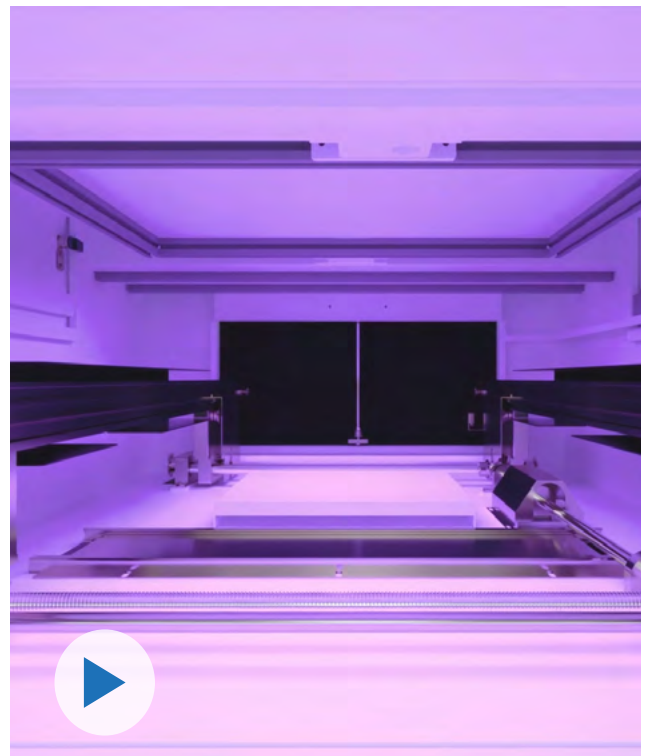


INLINE UV MERCURY OVEN



The **UV Mercury Oven** for one sided selective conformal coating of printed circuit boards (PCBs) maximizes productivity and yield, conserves factory floor space, and reduces board-handling requirements.

Available for integration with Protection Concept Modular Line, the UV Mercury Oven can be configured for cure pass and pass-through board processing under the UV Mercury curing process.



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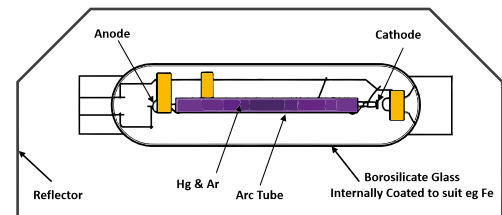
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TECHNICAL DETAILS

- **HG Lamps:** High pressure HG lamps are required for industrial curing. These run at up to 20bar due the gas expansion
- **Arc Tube:** An electric arc is struck across a fused quartz arc tube containing Mercury & Argon. The light has bandwidths with sharp concentrations at specific frequencies
- **Mercury vapor lamp:** Gas discharge lamp
- **Stops the system:** The unit is equipped with a differential pressure monitor that immediately stops the system if ventilation falls below prescribed levels
- **Width adjustment:** Electrical and automatic width adjustment
- **Humidity Control** (option): Air conditioner (humidity & T°C control closed loop)



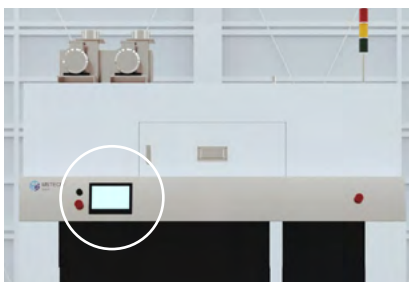
Arc Tube



Humidity Control

FEATURES

PROCESS MONITORING



Throughout the protection process, the Programmed Logic Control (PLC) module monitors loading and unloading operation, board location and exhaust ventilation for possible solvent-based protection processing.

VENTILATION DESIGN



Unique ventilation design: Allows the oven to run cooler extending the life of electronic components.

50% OF DIRECTED LIGHT



The reflector provides over 50% of directed light. Efficiency affected more and more over time by:

- Pollution from Ozone
- UV surface breakdown
- Temperature on airborne contaminants

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INLINE MODULE SPECIFICATIONS

- Control system: Instrument control
- UV lamp lifetime can reach 1000-1200 hour
- Focus design import high light reflector lamp shade
- Independent cooling area ensures the low temperature when PCB comes out
- Transmission system use an adjustable speed at 100-2000mm/min

CURING DETAILS

- Lamp luminosity is proportional to vapor temperature
- Electron arc temperatures with pressure increase during warm up
- Ballast resistors needed to prevent explosion
- High intensity light -cannot be low- light from single area must be distributed

BENEFITS

 LAMPS - UV	 ARC LAMP BENEFITS	 VENTILATION DESIGN	 OPTIONAL UVLED 395 LAMP	 SOFTWARE TRACKING INTEGRATION
<p>Arc lamp technology with adjustable UV intensity.</p> <p>Optional UVA lamp measurement ensures process reliability and compensates for lamp degradation by measuring and adjusting UVA power levels.</p> <p>A variety of options and lamp types are available to further ensure that the oven meets customer specific needs while maintaining high performance.</p> <p>Interchangeable UV modules.</p>	<p>Better intensity and dose ratio.</p> <p>Scalable power to match your process – lower energy consumption and noise.</p> <p>Less exhaust requirement – lower energy consumption and noise.</p>	<p>The unique ventilation design allows the oven to run cooler – extending the life of electronic components.</p>	<p>Optional UVLED 395 lamp ensures future UVLED application, in the same capital equipment with this flexible option, saving foot print.</p>	<p>Software tracking of wavelengths radiation limits.</p> <p>Standard SMEMA-compatible chain conveyor with 5-mm pins (Option 3 or 8 mm)</p> <p>Integrates with any dispensing or coating system.</p> <p>Low maintenance and easy to operate.</p>

TRACEABILITY



PROCESS TRACKER:
CONNECT TO FIS/MES SYSTEM



REAL TIME MONITORING OF THE WORKING
STATUS OF THE IRRADIATION HEAD
(OPTION)



BAR CODE & DATA MATRIX CODE
READER SOFTWARE CONNECTION

PRODUCT APPLICATION

Flexible integration of a wide range of products and processes including

SMT PCB/PCBA conformal coating

Medical supplies

Optical Bonding Display



MSTECH

EUROPE

Pursuit of perfection

Innovation | Precision | Performance



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