

# UV Curing ovens 11

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#### Being ready for high volume production throughout!

#### **Main Features**

• Modular configuration for curing topside of PCBs, optional for bottom –side or both sides of PCBs.

• A inline SMEMA-compatible chain conveyor allows processing of boards and is easily integrated with your existing Century conformal coating system.

• World-class Fusion<sup>®</sup> microwave lamp technology allows the focus height of the Ultraviolet lamps can be adjusted.

• The ventilation blower forces cooling air across the surface of the boards to keep the temperature and rate of rise at acceptable levels – safer and better for electronic components.

- UV lamp size and focal height are configurable to meet specific application requirements.
- Automatic shutters at the oven entrance and exit to prevent the UV light leak from the environment.

• Fully enclosed machine frame for clean and quiet operation, no UV light leak!

- Large access doors to all critical areas
- Being ready for high volume production throughout!
- CE certificates support to enhance the top safety machine.





## Partner with Heraeus UV lamp technology advantages!

#### **Electrodeless Technology**

At the heart of the microwave technology is the tubular electrodeless bulb in an elliptical reflector that focuses an intense strip of UV energy onto the surface in front of it. These long life bulbs (no metal electrodes as required in conventional arc lamps) are known for their stable performance, high intensity and low maintenance operation. Frequent on/off operation has no adverse effect on UV output or bulb lifetime.

#### FUSION F300 series UV system

#### More Efficient and Faster UV Curing from High Peak Irradiance and Low Infrared

The heart of the UV-cure system is the lamp technology.

ExplorCuring UV system is using Fusion<sup>®</sup> microwave lamp technology to ensure the correct wave length of UV-light, but also a constant output during a guaranteed life time of at *least 8000 hours!* 

The focus height of the Ultraviolet lamps can be adjusted and a range of bulb types offers specific wavelengths to match your material curing parameters.



Microwave Lamp Compared to Arc Lamp







### **Specifications**



UV-Curing unit	
Туре	UV-Curing unit
UV system	Heraeus- Fusion F-300S series or specify.
Model	ExplorCuring-XXX depending on type of light bulb your application requires.
Dimension (L x W x H)	1500mm x 1100 mm x 1662 mm
Tunnel length / height	1500 mm long 100 mm clearance on top and 100 mm clearance on bottom of chain.
Board size	Min: 30 mm (W) x 120 mm (L), smaller products need to be processed in a carrier. Max. 460 mm (W) x 500 mm (L)
Conveyor width adjustments	Motorized type, optional: automatic by software setting
Conveyor	Pin chain conveyor, 5 mm pins
Transport speed	0-5m/min
Safety	CE certificatesL,Shutters on entrance and exit to avoid operator contact with hazardous UV light.
Controller	Microprocessor PLC controller. Speed, shutters and UV on/off. The oven checks if boards are jammed in the transport conveyor and shuts down the UV source when a jammed board is detected.
User Interface	Touch screen on oven
Communications	SMEMA interface.
Cooling	External extraction to remove the generated heat from the process tunnel is needed.
Exhaust	Oven uses external exhaust.
Power	Depending on number of installed UV lights. Range: 3.6 kW - 18.6 kW.For more details: ask for Power Supply overview from one to max. 6 bulbs.
Air	Minimal required: 3.5 bar. Consumption: 5L/min. The standard oven can be equipped with lights from the top. When bottom emitters are required you need to order bottom light mounting option.
Top and Bottom	The standard oven can be equipped with lights from the top. When bottom emitters are required you need to order bottom light mounting option.
Light source	Fusion F-300 light source
Weight	300 kg with one lamp. Extra lamp appr. 35 kg per lamp.