



# ASYMTEK Thermal Cure (TC) Oven

In-line IR/Convection Curing for Conformal Coating Applications

The in-line Thermal Cure (TC) oven is ideal for mid- or high-volume production. Conveyor speed and internal thermal environment are precisely controlled, while infrared panels and heat dispersion plates transfer heat by convection.

Through a unique downdraft exhaust design, plenums below the conveyor rails and near the coated substrate efficiently remove volatile organic compounds (VOCs) when connected to an external, customer-supplied exhaust system.

A touchscreen monitor makes operating the Windows®-based interface convenient. Multi-language support, alarm log, event history, auto-diagnostics, onboard help files, KIC and ECD temperature profiling software tools, and the ability to store over 100 profiles deliver powerful process support and ease of use.

The SMEMA-compatible chain, with a manually adjustable left-to-right workflow, easily integrates with ASYMTEK conformal coating systems, enabling in-line double-sided board processing and accommodation for tall components.

Disassemble and replace heating elements and convection units in under five minutes for convenient maintenance.

## Features and Benefits

- Increase flexibility with four different lengths available to match your production requirements.
- Safely remove VOCs.
- Control your process with distinct programmable heating zones for specific drying or curing profiles.
- Fast warm-up and cool-down for increased productivity.
- Outstanding maintenance efficiency with convenient access to interior subassemblies.
- CE certified to conform with European Community safety and quality standards.

# Thermal Cure (TC) Oven

## Specifications

Thermal Environment	Maximum process temperature:	500 °C
	Process profile repeatability:	±5 %
	Heat-up time:	30 minutes (includes stabilization)
Conveyor	Board width <sup>(1)</sup> :	50-450 mm (2-17.7 in.)
	Board clearance (above and under):	100 mm (3.9 in.)
	Standard speed <sup>(2)</sup> :	165-1100 mm/min. (6.5-43.3 in./min.)
	Pin/chain conveyor:	5 mm (0.2 in.)
	Conveyor height:	900-980 mm (35.4-38.6 in.)
Other Standard Features	Portable computer control system, touch screen, Windows® operating system, KIC/ECD profiling software, 3-color light tower, SMEMA compatible, CE compliant	

## Oven Configurations

Parameter	TC-2400	TC-3000	TC-3600	TC-4800	TC-6600
Number of heating zones	6	6	6	10	10
Heating length	2,400 mm (94.5 in.)	3,000 mm (118.0 in.)	3,600 mm (141.7 in.)	4,800 mm (189.0 in.)	6,600 mm (259.8 in.)
Overall length	3,200 mm (126.0 in.)	3,800 mm (149.6 in.)	4,400 mm (173.2 in.)	5,600 mm (220.5 in.)	7,400 mm (291.3 in.)
Overall width	1,250 mm (49.2 in.)	1,250 mm (49.2 in.)	1,250 mm (49.2 in.)	1,250 mm (49.2 in.)	1,250 mm (49.2 in.)
Height excluding monitor and light beacon	1,380 mm (72.8 in.)	1,380 mm (72.8 in.)	1,380 mm (72.8 in.)	1,380 mm (72.8 in.)	1,380 mm (72.8 in.)
Weight (without crate)	1,045 kg (2,304 lbs.)	2,100 kg (4,630 lbs.)	2,224 kg (4,903 lbs.)	2,514 kg (5,542 lbs.)	3,400 kg (7,496 lbs.)
Voltage: Standard	400 VAC, 3-phase, 5-wire	400 VAC, 3-phase, 5-wire	400 VAC, 3-phase, 5-wire	400 VAC, 3-phase, 5-wire	400 VAC, 3-phase, 5-wire
Power input	34 kW	40 kW	46 kW	58 kW	76 kW
Voltage: Americas	480VAC, 3-Phase, + E 50/60 Hz	480VAC, 3-Phase, + E 50/60 Hz	480VAC, 3-Phase, + E 50/60 Hz	480VAC, 3-Phase, + E 50/60 Hz	480VAC, 3-Phase, + E 50/60 Hz
Power input	41 kW	48 kW	56 kW	70 kW	92 kW
Exhaust requirements <sup>(3)</sup>	600 m³/hr (353 CFM)	650 m³/hr (383 CFM)	700 m³/hr (412 CFM)	750 m³/hr (441 CFM)	800 m³/hr (471 CFM)

(1) Contact factory for widths up to 480 mm (18.9 in.)

(2) Contact factory for speeds of 80-480 mm/min. (3.2-18.9 in./min.), or 300-1800 mm/min. (11.8-70.9 in./min.)

(3) Customer-supplied exhaust requirements @ 40 mm (1.6 in.) water column, T= 90 °C

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