

ULTRA PROFILE SERIES

REFLOW SOLDER/CURING OVEN

SIKAMA International's patented Ultra Profile 2000 & Ultra Profile 4000 Solder Reflow ovens feature state-of-the-art technological advancements designed to provide ultimate control; of your solder reflow process. These ovens combine bottom-up conduction with top-down convection heat, precise calibration of temperature and purity of atmosphere. The Ultra Profile Series are available in two configurations; both feature a manually loaded stand-alone unit and an automated version which utilizes robotics, sensors and SMEMA interface connection to link into a line with other automated assembly machines.



The Ultra Profile 2000 is a seven-zone system, while the Ultra Profile 4000 is a twelve-zone system. Both models feature a liquid-cooled loading platform, top and bottom conduction+convection heat zones, top and bottom conduction+convection liquid-cooled zones, and a liquid-cooled platform. Each top and bottom heated zone has independent set point controls and gas flow controls to ensure consistent and precise temperatures for greater profile flexibility. The internal liquid-cooled zone ensures a process cool-down in an inert atmosphere prior to the product exiting onto the offload platform. Parts are transported through the system using sweeper bars that operate in a "dwell" (timed delay) mode allowing adjustable cycle times (capable of less than 10 seconds per cycle). The system may be operated with air, nitrogen or forming gas. The inert gas flow enters the reflow chamber through small orifices in the top and bottom heated platens and exits the sides to prevent contamination of adjoining zones and completely eliminate flux buildup. In addition to heating inert gas, the top platens also contribute significant radiant heat to the reflow process and are easily adjusted to minimize the opening of the reflow chamber to as low as 0.25 inch thus conserving inert gas consumption while maintaining the desired oxygen level in the chamber.

Capable of heating up to 400C, the Ultra Profile Series is targeted at applications involving die soldering, BGAs, flip chips, and insulated metal core substrates. The oven may also be used for processing high-density components and substrate materials ranging from copper to ceramic to beryllium, even glass epoxy!

The Ultra Profile efficiency of operation and minimal use of electricity and gas, along with the small footprint of the unit, are the results of SIKAMA's unique patented design for balanced heating and cooling. SIKAMA International's Ultra Profile Series produces impressive results with powerful repeatable profiles that will increase your yields, improve your bottom line, safeguard your product integrity, and your reputation

SIMPLE • EFFICIENT • ECONOMICAL

FALCON SYSTEMS

ULTRA PROFILE SERIES

TYPICAL SPECIFICATIONS...

	Ultra Profile 2000™	Ultra Profile 4000™
Heating Zones	4	7
Cooling Zone	2	4
Load Zones	1	1
Total Number of Zones	7	12
Platen Size	4.5 in W X 12 in L	4.5 in W X 12 in L
Maximum Substrate Size	3.9 in X 12 in (114 mm x 305 mm)	3.9 in X 12 in (114 mm x 305 mm)
Time Mode (Dwell & travel Time)	7 sec to 99 min. 59 sec with automation (per zone)	7 sec to 99 min. 59 sec with automation (per zone)
Temperature (Standard)	Up to 400°C	Up to 420°C
Temperature Accuracy	±2°C	±2°C
Warm-up Time to 230°C	15 minutes (approx)	15 minutes (approx)
Coolant Flow	0.5 to 2 GPM (2 to 8 liters/min)	0.5 to 2 GPM (2 to 8 liters/min)
Alarms	Over/Under Temperature, Gas, Coolant, Motor Torque, SMEMA Interface	Over/Under Temperature, Gas, Coolant, Motor Torque, SMEMA Interface
Parts Flow (Specify when ordering)	Inline: F to B or B to F Serpentine: L to R or R to L Back to Front or Front to Back	Inline: F to B or B to F Serpentine: L to R or R to L Back to Front or Front to Back
Gas Consumption	250-350 cubic feet/hour (process dependent)	500-600 cubic feet/hour (process dependent)
O2 Level	10 PPM, 0.25 inching opening	10 PPM, 0.25 inching opening
Voltage (Specify)	200-240 VAC, 50-60 HZ, 3 phase	200-240 VAC, 50-60 HZ, 3 phase
Start-up Power	11 KW @ 240 VAC	17 KW @ 240 VAC
Power Consumption	50% duty cycle at normal process temperature (230°C)	50% duty cycle at normal process temperature (230°C)
Basic Unit Weight	500 lbs (227 kg)	750 lbs (340 kg)
Basic Unit Dimensions	Inline: 46 L x 24 W x 54 H in (117 x 61 x 137 cm) Serpentine: 46 L x 38 W x 54 H in (117 x 97 x 137 cm)	Inline: 72 L x 24 W x 54 H in (183 x 61 x 137 cm) Serpentine: 72 L x 38 W x 56 H in (183 x 97 x 142 cm)

SIKAMA



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SIMPLE • EFFICIENT • ECONOMICAL

All SIKAMA products designed and manufactured in Santa Barbara, California

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