

— UV CURING SYSTEMS

OmniCure UV Curing Lamp & LED Systems



OMNICURE UV CURING LAMP

OmniCure® S Series UV light curing systems are used for precision adhesive curing in industries such as medical device bonding, electronic assembly, and optoelectronics applications. Due to the accuracy requirements and critical nature of these devices, a repeatable process with reliable UV curing equipment is essential to product performance.

OmniCure S Series delivers stronger, faster cures of UV adhesives resulting in improved product quality, rapid production and reduced manufacturing costs. Significant UV light curing systems expertise and innovative design goes into every curing machine to ensure peace-of-mind when selecting the most reliable spot curing equipment in the industry.



S1500

High Pressure 200 Watt Mercury Vapor Short Arc

2000 hours (guaranteed)

Available Filters : Standard : 320-500nm

Optional : 250-450nm*, 365nm, 320-390nm, 400-500nm

Panel Controls : Power On/Off, LED Display, Up/Down Adjust Buttons, Start/Stop Button

Panel Displays : Accumulated lamp usage, exposure time, iris setting, lamp on/warm-up status, shutter open, Light Guide detection, shutter/lamp error

Warm-up Period : 4 minutes (typical)

Power In : 100-240VAC, 50/60Hz

Power Supply : High efficiency, switch mode, line isolated

Dimensions [LxWxH] : 13.30 x 7.10 x 7.90 (33.8cm x 18.0cm x 20.1cm)

Weight : 9.9lbs (4.5kg)

S2000

70% improvement of shutter activation latency increasing productivity, especially for high volume manufacturing.

Downloadable StepCure® Software : Download customized multi-phase cure profiles directly to the unit. No need for a permanently connected PC.

Modified PLC Level Mode : Provides trigger signal versatility by selecting either edge or level modes.

Provides up to 30W/cm² of output and a guaranteed 2000 hour lamp life, lower operating costs.

Intelli-Lamp Technology to cool lamp and monitor lamp hours

2 UV Lamp Options : Special UV lamp technology for acrylic adhesives provides a tack-free surface cure.

Closed-Loop Feedback Technology : Automatically monitors and maintains a constant output for a repeatable spot UV curing process using an integrated UV sensor.

Typically, UV lamp intensity will diminish over time which affects the results and consistency of a UV curing process. The closed-Loop Feedback technology automatically compensates this effect with a tolerance of +/-5%

Adjustable light output in 1% increments : Allowing very precise control of the light curing system output.

Easily combined with the R2000 Radiometer : Calibrate and set absolute UV curing system irradiance levels from a single reference point.

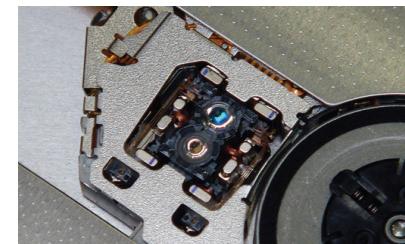
OMNICURE SERIE 1500



S1500

R2000

Filtre (nm)	Irradiance (mW / cm ²)
320-500 nm	23 000 mW/cm ²
320-390 nm	14 500 mW/cm ²
365 nm	7 300 mW/cm ²
400-500 nm	5 900 mW/cm ²
250-450 nm	19 100 mW/cm ²
No Filter	27 70 mW/cm ²



PRESENTATION

The OmniCure® S1500 spot UV curing lamp provides automated manufacturers with industry leading control, reliability, and high intensity irradiance in a versatile UV mercury lamp system. Offering precise control of UV lamp output and high-speed shutter activation capabilities, the OmniCure S1500 spot UV curing lamp is ideal for the high throughput UV adhesive curing and automated bonding processes involved in microelectronic and optoelectronic manufacturing.

Recognized as the global leader in bonding systems for precision assembly with light-cured adhesives, the OmniCure® family of products provides the power, control and repeatability demanded by high-speed automated

manufacturing assembly. The OmniCure® S1500 UV Spot Curing System builds on that leadership by providing first-rate quality, precision and versatility in an easy-to-use, cost-effective system. The OmniCure® S1500 is also designed to adhere to regulatory validations and is RoHS compliant.

■ Powerful 200 Watt Intelli-Lamp®

At the heart of the OmniCure S1500 & S2000 UV curing system is the unique Intelli-Lamp technology. The OmniCure Intelli-Lamp is guaranteed to strike for a minimum of 2000 hours operation with a maximum-use lifetime up to 4000 hours. Snap-in insertion enables quick and easy Intelli-Lamp installation, while ensuring consistent optical tube and UV

sensor alignment. Each Intelli-Lamp chip module automatically records and maintains the UV lamp hours of use to facilitate activation of lamp warranty if required. The Intelli-Lamp provides output across virtually the entire visible and UV spectrum, making it suitable for a wide range of adhesive/substrate bonding applications.

■ Intelligent Operation

The OmniCure® S1500 has a multitude of built-in features that provide greater control, precision and versatility. Features include an adjustable iris, patented Intelli-Lamp® technology, selectable bandpass filters, process alarms, and 'lock out' protection, most of which are found only in higher-priced curing systems.

S1500 : PERFORMANCES

SPECIFICATIONS	BENEFICES	
Fast Shutter Activation Time	Improved shutter activation latency increasing productivity	■ UV Curing Lamp Technology: High Pressure 200 Watt Mercury Vapor Short Arc
Modified PLC Level	Provides trigger signal versatility by selecting either edge or level modes	■ UV Curing Lamp Life : 2000 hours (guaranteed)
200W lamp technology with 2000 hour lamp life guarantee	Less frequent lamp changes for lower operating costs	■ Available Filters : Standard: 320-500nm Optional: 250-450nm*, 365nm, 320-390nm, 400-500nm
Shutter / Aperture sophisticated roulette	Tested more than 6 million times to inspect to their reliability	■ Panel Controls : Power On/Off, LED Display, Up/Down Adjust Buttons, Start/Stop Button
Intelli-Lamp® Technology to cool lamp and monitor lamp hours	Maintain optimum operating condition, stable lamp output, longer lamp life, accumulated lamp hours	■ Panel Displays : Accumulated lamp usage, exposure time, iris setting, lamp on/warm-up status, shutter open, Light Guide detection, shutter/lamp error
Adjustable light output in 1% increments	Allowing very precise control of output	■ Warm-up Period : 4 minutes (typical)
External PC Controlled	Beneficial for automated assembly processes	■ Power In : 100-120 V c.a. / 200-240 V c.a., 50/60 Hz
Guaranteed Long UV Lamp Life	The OmniCure S1500 Intelli-Lamp is guaranteed to strike for a minimum of 2000 hours operation with a maximum-use lifetime up to 4000 hours.	■ Power Supply : High efficiency, switch mode, line isolated
Pre-Aligned & Focused	Snap-in insertion automatically senses the Intelli-Lamp, eliminating the need for operator alignment or focusing.	■ Dimensions [LxWxH] :13.30 x 7.10 x 7.90 (33.8cm x 18.0cm x 20.1cm)
Automatic Lamp Hour Tracking	Each Intelli-Lamp chip module automatically records and maintains the UV lamp hours of use to facilitate activation of lamp warranty if required.	■ Weight : 9.9lbs (4.5kg)
Broad UV Spectral Output	The Intelli-Lamp provides output across virtually the entire visible and UV spectrum, making it suitable for a wide range of adhesive/substrate bonding applications.	■ Includes : UV Curing Lamp Module, Selected Filter (installed), Protective Eyewear, Grounded and Shielded Power Cord, Foot Pedal, Manual
Built-In Reflector	Each Intelli-Lamp includes an integrated reflector, eliminating the need for a separate replacement reflector in the UV curing system.	
Hot-Strike Prevention	Automatic temperature monitoring cools the UV curing lamp and protects against accidental hot-striking to further extend UV lamp life.	

OMNICURE SERIE 2000



PRESENTATION

Recognized as the global leader in bonding systems for precision assembly with light-cured adhesives, the OmniCure® S2000 provides the power, control and repeatability required for high-speed automated manufacturing assembly.

Offering a powerful 200 Watt lamp with a guaranteed life of 2000 hours, the OmniCure® S2000 also offers Closed-Loop Feedback technology and a flexible PC software interface for computer-controlled operation. When combined with OmniCure®'s R2000 Radiometer, the OmniCure® S2000's precision and reliability is unmatched. The OmniCure® S2000 is also designed to adhere to regulatory validations and is RoHS compliant.

■ Fast Shutter Activation

The OmniCure® S2000 is equipped with a fast shutter activation time, providing a maximum trigger shutter activation latency of only 50ms in PLC mode.

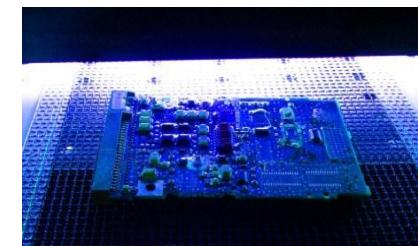
■ Closed-Loop Feedback

Over time, lamp intensity diminishes effective curing. The OmniCure® S2000 internal intensity sensor monitors light output in real time and opens the iris to automatically correct light output within +/- 5%, ensuring repeatable and measurable doses of energy every time.

S2000

R2000

Filters (nm)	Irradiance (mW / cm ²)
320-500 nm	24 700 mW/cm ²
320-390 nm	9 830 mW/cm ²
365 nm	7 280 mW/cm ²
400-500 nm	16 550 mW/cm ²
250-450 nm	26 640 mW/cm ²



■ Downloadable StepCure®

StepCure® software can download a customized multi-phase cure profile directly to the system. This option offers users greater cure control.

■ 200 Watt Intelli-Lamp®

The powerful 200 Watt Intelli-Lamp® provides even faster curing with high UVA irradiance of up to 30W/cm². With automatic lamp hour tracking and broad spectral output, the OmniCure® S2000 suitable for a wide range of adhesive/substrate bonding applications.

S2000 : PERFORMANCES

SPECIFICATIONS	BENEFICES	
Faster Shutter Activation Time	70% improvement of shutter activation latency increasing productivity, especially for high volume manufacturing	Lamp : High Pressure 200 Watt Mercury Vapor Short Arc
Downloadable StepCure® Software	Download customized multi-phase cure profiles directly to the unit. No need for a permanently connected PC	Lamp Life : 2000 hours (guaranteed)
Modified PLC Level Mode	Provides trigger signal versatility by selecting either edge or level modes	Available Filters : Standard: 320-500nm Optional: 250-450nm*, 365nm, 320-390nm, 400-500nm
200W lamp technology with up to 30W/cm ² of output and a 2000 hour lamp life guarantee	Lower operating costs	Panel Controls : Power On/Off, Display Mode, Adjust Up/Down, Start/Stop, Lock/Unlock
Intelli-Lamp® Technology to cool lamp and monitor lamp hours	Maintain optimum operating condition, stable lamp output, longer lamp life, accumulated lamp hours	Panel Displays : Accumulated lamp usage, Exposure time [0.2 - 999.9sec], iris setting [0-100%] / irradiance level [0.2W/cm ² - 40W/cm ²], lamp on/warm-up, shutter open, calibrated, Light Guide detection, shutter/lamp error
2 Lamp Options	Special lamp technology for acrylic adhesives provides a tack-free surface cure	Warm-up Period : 4-minutes (typical)
Closed-Loop Feedback Technology	Automatically maintains a constant output for a repeatable curing process	Power In : 100-120VAC / 200-240VAC, 50/60Hz
External PC Controlled	Beneficial for automated assembly processes	Power Supply : High efficiency, switch mode, line isolated
Adjustable light output in 1% increments	Allowing very precise control of output	Dimensions [LxWxH] : 13.3" x 7.1" x 7.9" [33.8cm x 18.0cm x 20.1cm]
Easily combined with the OmniCure®R2000 Radiometer	Calibrate and set absolute irradiance levels wirelessly from a single reference point	Weight : 9.9lbs [4.5kg]
Pre-Aligned & Focused	Snap-in insertion enables quick and easy Intelli-Lamp installation, while ensuring consistent optical tube and UV sensor alignment.	Includes : Lamp Module, Selected Filter (installed), Protective Eyewear, Grounded and Shielded Power Cord, Foot Pedal, Manual
Automatic UV Lamp Hour Tracking	Each Intelli-Lamp chip module automatically records and maintains the UV lamp hours of use to facilitate activation of lamp warranty if required.	
Broad Light Curing System Spectral Output	The Intelli-Lamp provides output across virtually the entire visible and UV spectrum, making it suitable for a wide range of adhesive/substrate bonding applications.	

OMNICURE SERIE S : ACCESSORIES

ADJUSTABLE COLLIMATING ADAPTOR

The adjustable collimating adaptor is ideal for any application that requires a uniform spot from 1" up to 6" (2.54cm to 15.2cm).



LIGHT LINE

The Light Line will convert the Light Guide's spot of light into a focused, linear beam of curing energy.



UV CURE RING

UV Cure Ring technology allows a Light Guide 360° of curing power. The standard ring for use with Liquid Light Guides is available in solid or slotted versions.



LIQUID LIGHT GUIDE

Available in 3, 5 and 8mm tip diameters, these Light Guides are an economical choice for light delivery.



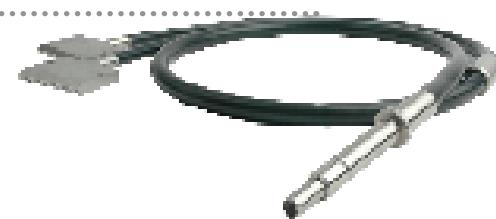
HIGH POWER FIBER LIGHT GUIDE

The Lumen Dynamics High-Power Fiber Light Guide supplies an equal distribution of UV energy to multiple cure sites from a single light curing system.



HIGH POWER FIBER LIGHT LINE

The High Power Fiber Light Line utilizes technology developed in the High Power fiber light guides to provide a high output linear beam of UV curing energy.



Many other accessories and consumables available : www.gentec-benelux.com

OMNICURE LX500



Interchangeable/Replaceable focusing lens options

PRESENTATION

Utilizing advanced UV LED technology, the OmniCure LX500 spot curing system has been uniquely designed with proprietary Intelli-Lamp® technology that monitors LED head temperature, lifetime data, and automatically maintains optical stability +/- 5% to provide greater degree of process assurance for your application. Available in either 2 or 4 channel configurations, the OmniCure LX500 is the most flexible and cost effective option for industrial manufacturing.

The OmniCure LX500 system controller offers a robust and intuitive user interface with the ability to control up to four UV LED spot curing heads simultaneously or independently at different wavelengths: 365nm, 385nm and 400nm. For long term stability of the light source, the New LED heads can be calibrated to tight tolerances to ensure a repeatable curing process and precise control of the UV irradiance.

The LX500 features StepCure® 2.0 which allows the operator to program different profiles within a single LED Head or multiple LED Heads across each channel.

LX500 : PERFORMANCES

SPECIFICATIONS	BENEFICES
UV LED Heads	1 to 4 individual & interchangeable to any channel
2.4" Full Color Displays	>Main Control, Input Configurations, System Maintenance, LED Information, Calibration, Micro SD Log Information.
Mode Control	4 Way membrane control for system display and programming.
Timer	Countdown Mode : Range programmable from 999.9s to 0.1s, in 0.1s intervals. Count Up Mode : User control timing via the front panel or foot pedals.
Intensity Level	5-100% (with 1% increments)
Start/Stop	Control start or stop of the LED emission.
Power On/Off	Separate power on/off controller
Alarms	Alarm icon will appear on screen in the event of an error or fault.
Controller Dimensions	(H) 5.5", (W) 3.5", (D) 5.5"
External Control Description	Via optional foot pedal, PLC, or PC through USB communication.
Operating Voltage	Controller Supply Input: 12 VDC Input to AC adaptor : 100-120VAC or 200-240VAC (+/-10%) & 50/60Hz
Power Consumption	72W max at 120VAC 104W max at 240VAC (with 4 UV LED heads in operation)
Ambient Temperature/ Humidity Range	5° to 35°C, 85% max. (no condensation)
Storage Temperature/ Humidity Range	-10° to 60°C, 85% max. (no condensation)

OMNICURE SERIE LX : ACCESSORIES

LED HEAD FOCUSING LENSES

Interchangeable LED focusing lenses allow control over UV spot size and irradiance level to meet the needs of your specific application.



FOCUSING LENSES

These interchangeable focusing lenses offer great flexibility to respond to your needs in terms of size of radiation. It is essential for any specific application.



LED HEAD MOUNTING CLAMPS

The precision machined mounting clamp is designed for installation versatility. The mounting clamp slides easily over the UV LED head and is secured with a single screw.



EXTENSION CABLE

Cables extension allows manufacturing process engineers to accommodate applications where the UV curing station needs to be further away from the controller.



Many other accessories and consumables available : www.gentec-benelux.com

OMNICURE R2000 RADIOMETER



SPECIFICATIONS

Wavelength Range	250nm - 1µm [with suitable calibration]
Maximum Range	Power: 1mW-12W Irradiance: 5mW/cm ² - 60W/cm ² [with 5mm Light Guide]
Resolution	Power: 1mW Irradiance: 5mW/cm ² [with 5mm Light Guide]
Accuracy	+/- 5% typical; +/- 10% maximum
Auto-ranging	Power: 1-990 mW; 1.0-12.00W Irradiance: 5-990mW/cm ² ; 1.0-60W/cm ²
	Irradiance and power measurement
Functions	Automatic light guide detection, Calibration due message
Power supply	Lithium battery 3.6V
Dimensions (LxWxH)	7 1/2" x 4 3/8" x 2" [19.0cm x 11.1cm x 5.0cm]

PRESENTATION

Radiometry is an essential link for measuring the light output from a UV curing system in order to maintain a repeatable process. The OmniCure® R2000 UV Radiometer can be combined with the OmniCure S2000 Spot UV Curing System to provide a complete curing station with unmatched control and repeatability. Special electronics built into the R2000 UV Radiometer also allow for the connection of custom sensors that measure light energy directly at the cure site or within cure ring bonding fixtures.

Accurate radiometry is essential to maintaining a calibrated and repeatable UV curing process suitable for consistent, high-quality production. The OmniCure® R2000 Radiometer is the most advanced and accurate tool for measuring irradiance or power from your UV Spot Curing System. Developed in cooperation with the OmniCure® Platform of UV Curing Systems, the portable OmniCure® R2000 Radiometer offers unmatched performance to calibrate and set irradiance levels on your OmniCure® S2000 Curing System.

- Using a single Radiometer, maintain process control and save setup time by calibrating multiple systems with a preferred irradiance set point
- Proprietary detector system for accurate wideband measurements suitable for many different light sources
- Proprietary optical interface that virtually eliminates beam profile dependence and significantly improves measurement accuracy
- Memory for storing data and communicating with PC software for downloading
- Ready for use with additional custom accessories such as the Cure Ring Detector and the Cure Site Detector

LED LIGHT METER



SPECIFICATIONS

Spectral Sensitivity	Selectable wavelengths programmable from 320-750nm
Measurement Range	Irradiance: 50mW/cm ² to 25 W/cm ² Power: 1mW to 500mW
Accuracy	+/- 10%
Resolution	Irradiance : 1mW/cm ² Power : 1mW
Fonctions	Peak Hold λnm (Wavelength selection) Power/ Irrad (puissance/ irradiation)
Sensor Dimension	165 mm x 100 mm x 44 mm
Meter Dimension	75 mm x 25 mm x 11.95 mm

PRESENTATION

The OmniCure® LED Light Meter offers the ability to accurately measure power and irradiance from an OmniCure® LED UV curing system, or any other LED UV source, directly at the cure site. With the narrow wavelengths emitted from an LED spot source, specific challenges arise when measured with a radiometer calibrated using a broadband source.

The OmniCure® LED Light Meter is specially designed with the ability to select specific wavelengths for measurement. When used with the sensor calibrated with a near monochromatic source, potential inaccuracies in measurement are eliminated that would normally occur due to the narrow spectral distribution of a UV LED source.

Featuring a peak hold function, the OmniCure® LED Light Meter allows users the ability to easily measure narrow beam patterns for capturing peak irradiance.

With a fine aperture that is calibrated with precision, accurate and consistent measurements can be obtained over a broad dynamic range. Manufacturers are able to achieve greater accuracy with ease of use while maintaining a reliable and controlled UV assembly processes. The OmniCure® LED Light Meter is calibrated according to protocol standards traceable to NIST and NRC :

- NIST - National Institute of Standards and Technology
- NRC - National Research Council

- Small form factor fits into limited spaces
- Peak hold function detects/records peak measurements
- Broad linear dynamic range for measuring from any LED light source
- Multi-point wavelength calibration for accurate measurements
- Offering maximum reliability and control for UV assembly processes

SYSTEME UV LED : AC450 & AC 475



SPECIFICATIONS	BENEFICES
Output of over 8W/cm ²	High speed curing for adhesives, coatings and inks
Custom front-end optics	Greater flexibility in the curing process via high peak irradiance available at longer working distances
Patented process for addressing individual LED modules	Even and consistent curing through excellent uniformity across the full LED area
Available in 395nm and 365nm	Ability to select the optimum wavelength for the adhesive, coating or ink and also the substrates to best suit specific applications
Air-cooled	Easily integrated into any workstation with no additional venting, ozone extraction or chillers required
I/O Port for remote operation	Ability to automate for increased productivity
Compact size	Easily integrated into any workstation

PRESENTATION

Ideal for curing of adhesives and coatings in electronics, optics and medical device assembly or inks in print, marking and coding applications.

Exceptional Irradiance Performance

The OmniCure® AC450 and AC475 utilize high emission LEDs which achieve over 8W/cm² at the optics window. The systems include advanced front-end optics to provide high peak irradiance at long working distances with extended clearance of

conveyed parts. This allows for easier curing, or the option of focusing the light at different working distances for adapting to a specific UV process.

Superior Uniformity & Extendible

Utilizing Lumen Dynamics' patented process for individually addressing each UV LED module output, the OmniCure® AC450 and AC475 offers consistent results by ensuring high longitudinal uniformity over the entire 50mm (2") to 75mm

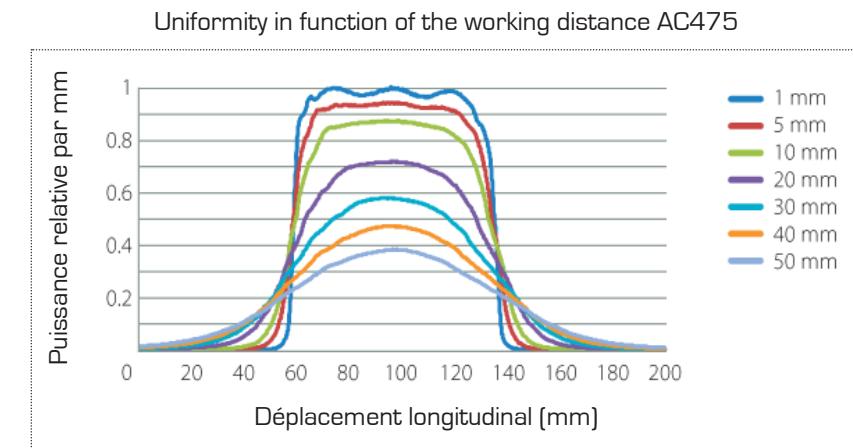
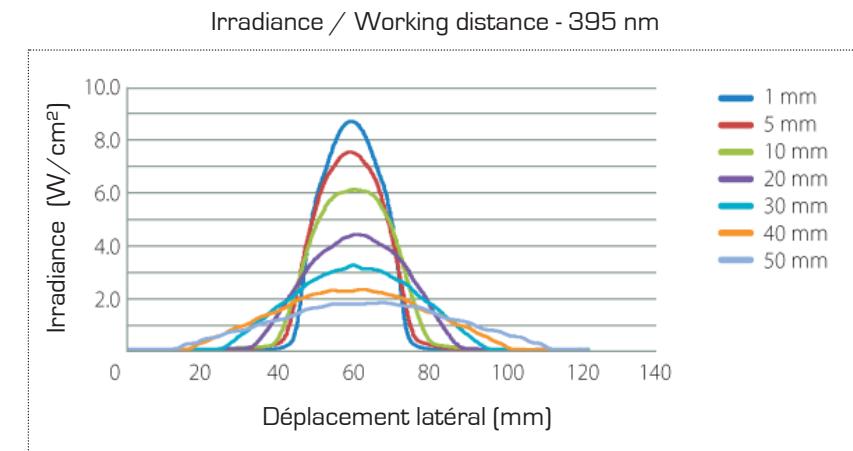
(3") curing area. A uniform exposure area allows for curing of larger and/or multiple parts simultaneously. It also offers the ability to convert a static curing process to one where parts are being cured while in motion in order to increase throughput.

Flexibility with Control

Precise control of the UV irradiance level and time ensures that the correct dose of UV energy at the required wavelength is provided on every exposure for a repeatable curing process. Intelligent system monitoring and control ensures system reliability meets the demands for any application.

AC450 & AC 475 : PERFORMANCES

		AC450		AC475	
Available Wavelengths		365 nm ± 5 nm, 395nm ± 5nm			
Curing Area		50mm x 25mm		75mm x 25mm	
Typical Irradiance [W/cm ²]		365nm	395nm	365nm	395nm
Working Distance	1mm	4.0	8.0	4.0	8.0
	10mm	2.8	5.7	2.8	5.7
	20mm	1.9	3.7	1.9	3.7
	30mm	1.5	2.8	1.5	2.8
	40mm	1.2	2.0	1.2	2.0
	50mm	1.0	1.7	1.0	1.7
Optical Power		45W	90W	68W	135W
Power Consumption		350W	350W	550W	500W
Longitudinal Uniformity		± 10%			
Operating Voltage		48 V DC ± 2 V			
Dimensions		110 x 68 x 190 mm			
Weight		1.1 kg (2.4 lbs)			
Cooling		Air			
Life Expectancy		> 20 000 hours			
Automation		Integrated PLC controls for UV intensity and system alarms			
Acoustic Noise		< 65dBA, load adapting			
Warranty		1 year ; 10,000 service hours (light engine)			





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The fluid dispensing being the cornerstone of numerous production chains, Gentec emphasis on this specific need by proposing a wide range of innovative and efficient dispensing equipments.

French leader on this area, it specialty is to design and implement solutions to put down and dispense every type of fluid in an accurate and repeatable way during the process of assembly. Thanks to its vast field of activity and application, no doubt that Gentec will know how to resolve your most complex problems of deposit and brings you the suited recommendations to optimize your production's capacities.

Persuaded that our expertise must be complete, we also supply you tools in order to prepare your fluid (mixture and degassing) and polymerize your glues (UV sunstroke). Our range of consumables (needles, syringes, static mixers etc) are also considered as the best in the market.

So we provide you every type of dispensing equipments to allow you to use efficiently your fluids regardless of the viscosity : glues, greases, lubricants, pastes, solvents, silicones, inks, activators, RTV, paints.

Present in more than 20 countries in the world, performance, quality, service and technology are at the center of all our concerns.