OmniCure®
■V Curing • In Control

OmniCure® S2000 Elite

Leap into the future of UV Curing

The OmniCure® S2000 Elite is a new generation lamp-based UV spot curing system designed for demanding manufacturing applications that require the most reliable and highest quality curing processes. The S2000 Elite improves productivity, enhances precision, upgrades security, enables next-level control and refines usability.

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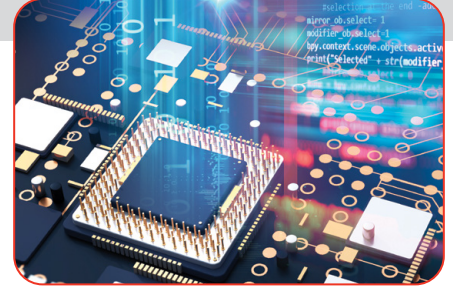
Medical

Mechanical

Electronics

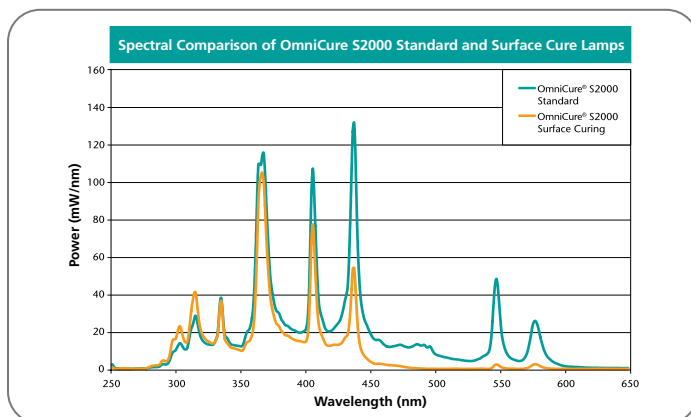
Proven Heritage and Backwards Compatibility

With its broad spectral output and selection of band pass filters designed to meet the requirements for most common adhesives, the original OmniCure S2000 has been successfully curing adhesives for almost 20 years. To ensure compatibility with existing curing processes and to maintain the same level of excellence in UV curing, the new OmniCure S2000 Elite uses the same 200W Hg lamp, with an identical spectral output, the same selection of optical filters and the same liquid and high-power fiber light guides as the original S2000. The OmniCure S2000 Elite is also compatible with the OmniCure R2000 radiometer and its radiometry accessories.

System Compatibilities		
	Original S2000	**S2000 Elite**
Spectral Output	Identical	
Optical Power	Identical*	
Light Guides	Identical	
Optical Filters	Identical	
Radiometry	Identical	
PLC Connection	Identical**	

*Optical power difference is dictated by lamp to lamp variations (+/-10%)

**When using the PLC External Adapter

Spectral Comparison of OmniCure S2000 Standard and Surface Cure Lamps

OmniCure® S2000 Standard
OmniCure® S2000 Surface Curing

Power (mW/nm)

Wavelength (nm)

Automation	Optomechanical	Research

Productivity

The OmniCure S2000 Elite system includes proprietary OmniCure Closed-Loop Feedback technology, which automatically monitors and maintains its optical output for a repeatable curing process. A new high-speed shutter with a 30ms response time ensures the precise dose for any application every time, even for the shortest exposure times. Excelitas' patented Intelli-Lamp® technology maximizes lamp-life while maintaining hours of use by tracking the lamp's parameters. To minimize down time, the effective lamp life remaining is provided at all times based on the system calibration state, lamp state and output parameters.

Ease of Use

The new OmniCure S2000 Elite features improved process control and security, making the system easier to use. A new 4.3" LCD touch screen display allows for simple navigation and access to powerful programming elements and monitoring of all curing-related statuses. Remote management and monitoring is available from any device through the WEB UI expanding all of the options and features available from the system's fascia to a larger laptop or tablet screen. Intelli-Tap® Near Field Communication (NFC) technology enables easy and powerful wireless process control and security features such as clearing faults, locking and unlocking system parameters and advanced cure process inputs through a tap of the Admin and Supervisor keycards on the designated system's front fascia area.

Connectivity

The OmniCure S2000 Elite has improved communications such as programmable PLC inputs and outputs, a USB connection, ethernet to connect the system to a LAN and Near Field Communication (NFC) for easier and more powerful automation integration. For customers looking to upgrade from the original S2000 XLA, the new OmniCure S2000 Elite has an available external PLC adaptor, which makes it a drop-in replacement and works with previous PLC and automation setups. The S2000 Elite has been designed with Industry 4.0 in mind, with powerful and flexible communications features and field upgradeable software to keep up with changing industry standards.
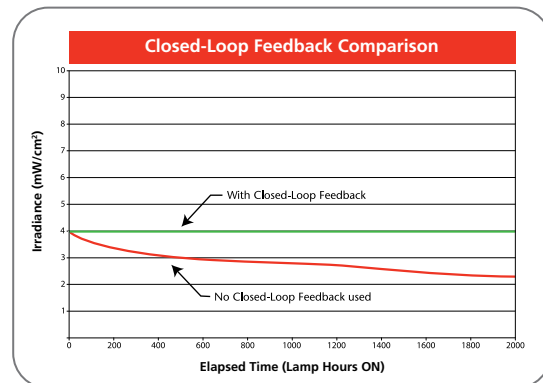
Closed-Loop Feedback

Over time, Hg lamp output decreases, diminishing effective curing. The OmniCure S2000 Elite Closed-Loop Feedback technology includes an internal optical sensor to monitor lamp output in real time and adjust the iris to automatically maintain the irradiance level to within +/-5% of the set point, ensuring repeatable and measurable doses of curing energy for increased yields and quality.

An on-screen indicator, the light ring and an audible alarm warns when the lamp can no longer generate the set irradiance level. Now you can use your lamp until the end of its lifetime, without the requirement to frequently check the irradiance level.

Calibration with the OmniCure R2000 Radiometer offers real time display of irradiance on the OmniCure S2000.

Closed-Loop Feedback Comparison

With Closed-Loop Feedback

No Closed-Loop Feedback used

Irradiance (mW/cm²)
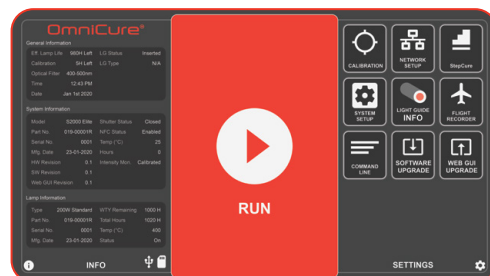
Elapsed Time (Lamp Hours ON)

- The only system that can be calibrated in real time for NIST accuracy
- Ideal for automated or semi-automated environments
- Often imitated – never duplicated
- Proprietary technology of Excelitas Technologies®

Web UI - Remote Control

Remote control, management and monitoring of single or multiple systems is available from almost any device through the WEB UI, expanding all of the options and features available from the system's touchscreen to a larger laptop or tablet screen. The WEB UI allows users to run exposures, build and manage curing profiles, review and download system logs as well as download and push software updates to multiple units from the comfort of their office. The WEB UI also provides advanced control for troubleshooting through the command line interface.
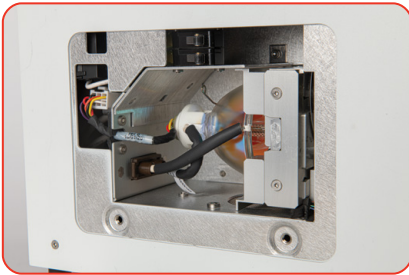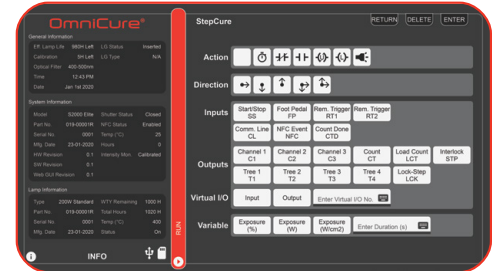
LCD Screen and Touch Screen UI

A new 4.3" LCD touch screen display provides easy access to all system functionalities. The intuitive and easy to use UI makes it simple to access and navigate through system information, settings and run screens.

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StepCure® with PLC Control Capability

The OmniCure S2000 Elite was designed with automation in mind. The built-in StepCure software can download a customized multi-phase cure profile directly to the system. Previously only available when connected to an external Desktop PC, this option offers users greater cure control.

Acting as a PLC controller and offering up to 8 programmable PLC output channels through the ladder-logic based StepCure program, the OmniCure S2000 Elite helps to simplify and lower the cost of automating assembly lines.

30ms Precision Shutter

The lightning fast 30ms shutter delivers a precise dosage to every single exposure for the most repeatable cure. With StepCure, the shutter allows exposures to have intervals as short as 100ms with minimal ramp-up and ramp-down times.

Calibration and Radiometry

Radiometry is an essential link for any repeatable curing process. Combine the OmniCure S2000 Elite with an OmniCure R2000 radiometer to measure and calibrate the light output, allowing the system's cure profile to be set in absolute peak irradiance (W/cm^2) or optical power (W). The OmniCure R2000 radiometer requires calibration every 12 months (NIST traceable) and can be used to set the output of multiple S2000 systems at the identical irradiance level.

Ease of operation

Intelli-Tap® NFC Communication

Intelli-Tap NFC enabled keycards enable users to reach the next level in process control. Two Intelli-Tap keycards are available, Admin and Supervisor, each with their own set of functionalities to cater to specific process requirements.

S2000 Elite Intelli-Tap	
019-00406R	S2000 Elite Intelli-Tap Supervisor NFC card
019-00407R	S2000 Elite Intelli-Tap Admin NFC card

Field Replaceable Lamp and Filter

Ideal for academic, development or laboratory applications, the OmniCure S2000 Elite can quickly be reconfigured with a different optical band pass filter or lamp type by detecting and adjusting its parameters automatically depending on the component installed. Choose from 7 different optical band pass filters or 2 different lamp types:
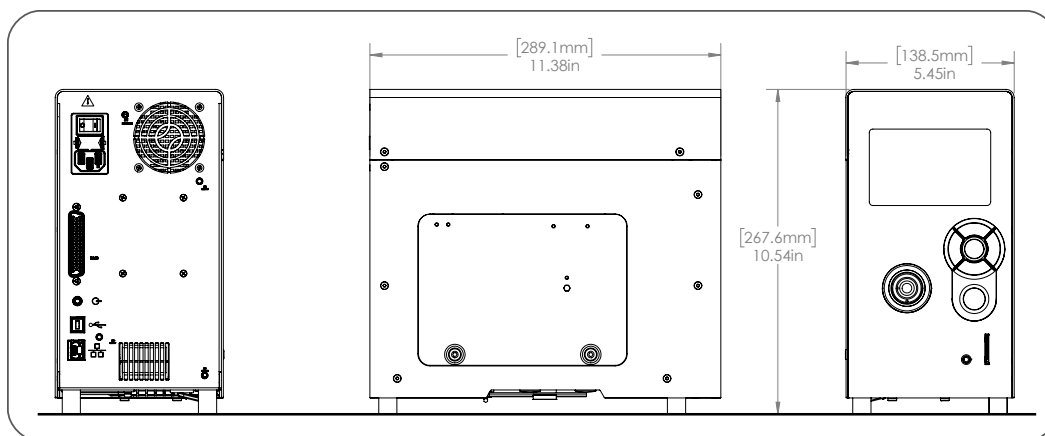

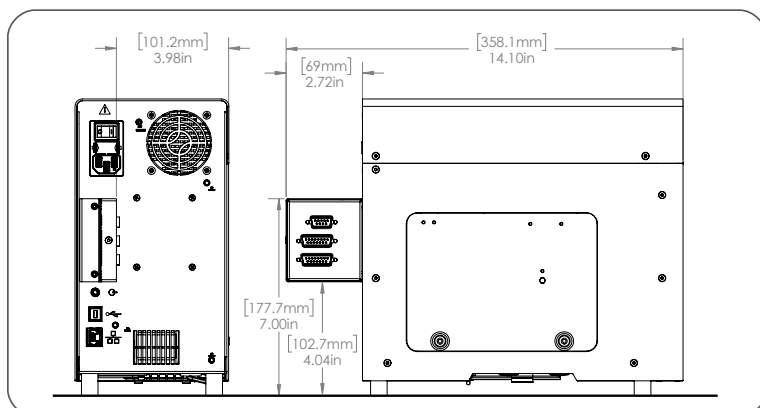| S2000 Elite Lamp Module	
012-68000R	S2000 Elite Lamp Module
012-69000R	S2000 Elite Lamp Module - Surface Cure

S2000 Elite Filters	
019-00387R	S2000 Elite Filter 400-500 nm
019-00388R	S2000 Elite Filter 365 nm
019-00389R	S2000 Elite Filter 320-390 nm
019-00390R	S2000 Elite Filter 250-450 nm
019-00391R	S2000 Elite Filter 320-500 nm
019-00392R	S2000 Elite Blank Filter
019-00394R	S2000 Elite Custom Filter

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Technical Specifications

Product Specifications – OmniCure S2000 Elite		
ELECTRICAL	Rated Input Voltage	100-240VAC, 50/60Hz
	Current	3.5A Max at 120VAC 2.0A Max at 240VAC
OPTICAL	Light Source	High Pressure 200 Watt Mercury Vapor Short Arc
	Lifetime	2000 Hours (guaranteed). 4000 Hours typical
	Optical Performance	Up to 30W/cm^2
PHYSICAL	Size (H x W x D)	268 x 139 x 289 mm (10.54 x 5.45 x 11.38 in)
	Size with External PLC Adapter (H x W x D)	268 x 139 x 358 mm (10.54 x 5.45 x 14.10 in)
	Weight	3KG (6.61lbs)
	Rated Operating Temperature	15°C to 40°C
	Rated Operating Environment	Dry Location, 15-95% Humidity (non-condensing)
WARRANTY	System	1 Year
	Lamp	2000 Hours

With PLC Adapter

S2000 Elite External PLC Adapter	
019-00395R	S2000 Elite External PLC Adapter

OmniCure S2000 Elite Features

Remote Control and Monitoring
Access the OmniCure S2000 Elite from almost any web enabled device for in-depth control and monitoring capabilities.

Field Configurable
Re-configure your system in-field with minimal downtime through user replaceable lamp types and optical filters.

Closed-Loop Feedback (CLF)
UV light delivery regulation enabling the most stable and reliable curing proces.

Intelli-Lamp® Technology
200 watt Intelli-Lamp guarantees 2000-hours of lamp life and up to 4000-hours typical lifetime through constant lamp monitoring.

Intelli-Tap® KeyCards
Advanced process control and security through NFC enabled Supervisor and Admin keycards.

Touch Screen UI
4.3" LCD touch screen display enables deep and intuitive system control.

StepCure PLC Controller
Powerful StepCure program with PLC control capability and tight process control.

Light Delivery Equivalency
Identical optical power and optical spectrum to the Original S2000 allows to upgrade your equipment without changing your process.

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