



Spot Curing

To succeed and prosper in the marketplace,

manufacturers must stay abreast of ever changing requirements, including those related to long-term product reliability. With respect to bonding methods, technology has advanced from glass, steel and mechanically fastened products to multi-level polymer materials and superior ultraviolet (UV) curing methods. And, with the continued movement toward more compact devices, the need to reliably bond smaller and smaller components has never been greater.

Along with our Lesco UV division, American Ultraviolet provides effective UV curing solutions to meet instant adhesive, coating, marking and masking curing needs for many solvent-free manufacturing industries, including medical device manufacturing, electronics, disk drives, automated assembly, fiber optics, lens manufacturing and a wide variety of industrial and commercial applications. Years of research, customer input and testing have led to the development of a variety of spot and portable UV systems that provide powerful curing, particularly with smaller and smaller components. These products are backed by one of the best technical and customer support teams in the world.

Whatever spot curing challenge you are facing under the sun, whether it is large or small, simple or complex, if it involves UV technology, it should involve American Ultraviolet.



**American
Ultraviolet**

LESKO



Super Spot MAX™

The Super Spot MAX from Lesco offers the process engineer tremendous control and monitoring from both local and remote monitoring locations. It is ideal for any spot curing application where high UV intensity at highest regulation is required for process speed improvement, regulatory compliance, and superior cure strength. It is perfect for curing adhesives, coatings, inks, and other UV curable materials where physical location and cure area dictate the use of a discrete fiber optic UV delivery system.

Featuring a membrane front panel and a powerful RS485 serial interface, it allows access to every parameter of the process from the shop floor or the supervisor's desk. It's powerful but user-friendly DataMax™ software creates records of every cure cycle, keeping them in its built-in memory until downloaded and reset. Simple alphanumeric commands add to the ultra flexible serial interface capabilities. The Super Spot MAX also features a proprietary Optical Feedback system that insures uniform output irradiance and optimal process validation.

Standard features

- Optical feedback for constant UV output
- UVA Peak (@315-400nm) 25 W/cm²;
UVA Rates (@315-400nm) 20 W/cm²;
Total Intensity (UVA, B, C, V) 30+ W/cm²
- Spectral Output: VIS/UVA/UVB/UVC; major peaks @ 365nm, 254nm, 302nm, 312nm and 405nm; filterable
- 8.5 x 11" x 13.5" deep; 20 lbs.
- Mercury vapor, 100W DC short arc
- Easy to adjust intensity on front panel with push of a button

Super Spot MAX HP™

The Super Spot MAX HP (High Power) is built on the same hardware and software platforms as the Super Spot MAX, however, it is designed to deliver the most extreme UV and visible spot area energy and intensity ever achieved. The Super Spot MAX HP is recommended for very high speed process lines and specialty applications that require either extreme intensity or split second cure times with superior cure strength. It is particularly useful for full-automated applications. Because of the extreme intensity, we only recommend the use of FibreFire™ fiber optic UV delivery systems with the Super Spot MAX HP.

Standard features

- Optical feedback for constant UV output
- Highest power spot cure available
- UVA Peak (@315-400nm) 30 W/cm²;
UVA Rates (@315-400nm) 25 W/cm²;
Total Intensity (UVA, B, C, V) 45+ W/cm²
- Spectral Output: VIS/UVA/UVB/UVC; major peaks @ 365nm, 254nm, 302nm, 312nm and 405nm; filterable
- 8.5 x 11" x 13.5" deep; 20 lbs.
- 200W DC short arc



Spot Curing

	Green Spot	Spectrum 100	SuperSpot MKIII	SuperSpot MAX	Cool Cure 365 LED
Dimensions (in) WxHxD"	9.75 x 9.75 x 12.5	10 x 10.5 x 5	8.5 x 11 x 13.5	8.5 x 11 x 13.5	10 x 10.5 x 5
Cleanroom Ready	•	•	•	•	•
UV Output ²	10-15W/cm ²	0-18W/cm ²	12-20W/cm ² (100W bulb) 16-27W/cm ² (200W bulb)	15-25W/cm ² (100W bulb) 16-30W/cm ² (200W bulb)	0-18W/cm ²
Single Cycle Program Control	•				
Multiple Cycle Program Control		•	•	•	•
Optical Feedback			•	•	
200W Bulb Capability			•	•	
Front Panel Shutter Activation				•	
Rear Panel Potentiometer Output Adjustment			•		
Front Panel Intensity, Dosage, Electrical Power & User Calibration Controls				•	
Footswitch	•	•	•	•	•
Safety Glasses	•	•	•	•	•
IR/heat filter	•	•	•	•	
Optional wavelength filters (see Filter spec chart below)	•	•	•	•	
90-265VAC, 50/60Hz Electrical Operation	•	•	• (selectable ¹)	• (selectable ¹)	•
Accepts Liquid Filled Light Guide	•	•	• (100W only)	• (100W only)	
Accepts FibreFire™ High Output Fiber Optic Light Guide	•	•	•	•	
Custom FibreFire™ Light Guides Available	•	•	•	•	
10,000+ Hours Expected LED life					•
Expected Bulb life ³	3,000 hours.	3,000 hours.	2,000 hours.	2,000 hours.	2,000 hours.
1 year materials and workmanship warranty ⁴	•	•	•	•	•
I/O interface (voltage or switch controlled) ⁵		• (optional)	• (optional)	•	• (optional)
DataMax™ process validation software				•	

The Spot Curing Selection Chart

This chart is designed to help you quickly compare features and specifications of our spot curing systems. Learn about optical feedback, bulb capability, front panel shutter activation, light guide acceptance, optional wavelength filters, bulb life, warranties, I/O interface, and much more.

¹ Specify requirement when placing order

² Listed outputs are UVA with OFB1004 filter, except for UltraMAX LED

³ 1,000 hour warranty (pro-rated)

⁴ Excludes bulbs & light guides

⁵ Consult factory for I/O options & pin configuration

Filter Specs Chart

Filter Part Number	Band Pass (Å in nm)	Transmission (Avg.)
OFB1004	280-480	
OFB1008	280-400	
OFB1013	280-500	100%
OFB1014	280-320	
OFB1017	280-480	60%
OFB1019	400-500	100%
OFB1021	320-400	

Super Spot MKIII™

The MKIII from the Lesco division of American Ultraviolet is a precision-built ultraviolet light source designed to deliver an intense, concentrated and regulated spot of UV and visible energy through a light guide. This superior optical package is ideal for those critical curing processes that require the ultimate power from a 100 watts platform and can be used for curing adhesives, coatings, inks and other UV curable materials whose physical location dictates the use of a light wand in the UV delivery system.

Standard features

- Optical feedback for constant UV output
- UV Output: 20 W/cm², peak (@315 - 400 nm), 15 W/cm², rated (@315 - 400 nm), over 25 W/cm² total (UVA, B, Visible); All measurements are NIST traceable
- Spectral Output: VIS/UVA/UVB/UVC with factory preset centered @ 365 nm. (UVA)
- 12.5" x 8"; Height: 10"; 14 lbs 10 oz.
- 100W DC mercury vapor short-arc lamp
- Mechanical rear panel intensity adjustment



Please visit www.americanultraviolet.com for additional product information

Green Spot

The attractive, all anodized aluminum Green Spot is the simple and reliable answer to today's solvent-free manufacturing environment. Assembled with state-of-the-art components, it provides reliable and powerful UV spot curing every time. Its flexible wand delivers dedicated, concentrated UV curing where it's needed, and its compact size (9.75 x 12.5") is ideal for R&D or other manual operations. And a unique "pop-off" lid allows access to the lamp reflector assembly, a big feature for intensive manufacturing line operations where downtime maintenance must be kept to a minimum - this feature allows the user to change lamp reflector assemblies in less than a minute.

The Green Spot uses an industry standard super-pressure mercury 100-watt lamp, mounted vertically, in a dichroic-coated elliptical reflector to generate an intense, consistent, 5mm spot of light in the UVA, UVB, UVC and visible ranges. Powered by a solid-state, power-regulated power board, the Green Spot maintains 100 watts of continuous power to the lamp. It also features a gravity-close shutter system for safety to the operator and reduced risk of the shutter being stuck in the open position.



Standard features

- Clean-room-ready (Class 100)
- Total weight under 14 lbs.
- Digital shutter time with foot switch
- Dual-fan cooling system
- 5mm x 1m liquid-filled light guide
- 12-15 W/cm



Spectrum 100

The Spectrum 100w UV Spot curing system from our Lesco division offers a very high 0-18 W/cm² output and 3,000 plus hours of expected bulb life. It is so robust, and reliable, that it can be used as an R&D unit or in a 24/7 full time manufacturing environment. The small (9.75" x 12.5") footprint of the Spectrum 100 makes it easy to mount to a rack, or place on top of a table or shelf.

Standard features

- Stainless Steel Construction
- Clean Room Ready Class 100
- Patented Lamp Reflector Assembly Designed for Easy Access
- Power input 90-260 VAC; 50/60 Hz; Automatic switching
- 8.5 Lbs
- Adjustable intensity control from 0-18 W/cm²
- Adjustable output 0-100%

Spot Curing

Cool Cure 365 LED

The Cool Cure 365 LED UV curing system from the Lesco Division of American Ultraviolet offers super high output LEDs and is so robust, and reliable, that it can be used as an R&D unit, or in a full-time manufacturing environment.

The Cool Cure 365 LED offers several significant advantages over other standard spot curing units, such as no warm up time, and no need to replace consumables like bulbs, reflectors and IR filters. This LED's UV output will remain consistent for more than 15,000 hours without any degradation, and comes standard with 365nm wavelength LED's. If you prefer, and for no additional charge, request 390nm, or 405nm wavelengths that will meet many standard UV curing applications, or requirements.



Standard features

- Adjustable UV output 0-18W/cm²
- Instant On/Off; low power consumption
- Clean room ready
- Uses standard light guides
- 375 nm peak
- 15,000+ expected hours of LED life

Rocket Cure

The Rocket Cure is part of a powerful class of UV spot cure systems with exclusive features. It offers adjustable UV power from 6 to 20 W/cm², and, with optional Opto Feedback, you're guaranteed consistent UV output over the entire functional life of the lamp. The Rocket Cure is the only spot cure system without a liquid light guide in the UV delivery system, which allows delivery of spot radiation from 254nm to 450nm, assuring complete depth curing, surface to the substrate.

Standard features

- Optical feedback for constant UV output
- UV Output: 20 W/cm², peak (@315 - 400 nm), 15 W/cm², rated (@315 - 400 nm), over 25 W/cm² total (UVA, B, Visible)
- Spectral Output: VIS/UVA/UVB/UVC with factory preset centered @ 365 nm. (UVA)
- 12.5" x 8"; Height: 10"; 14 lbs 10 oz.
- 100W DC mercury vapor short-arc lamp



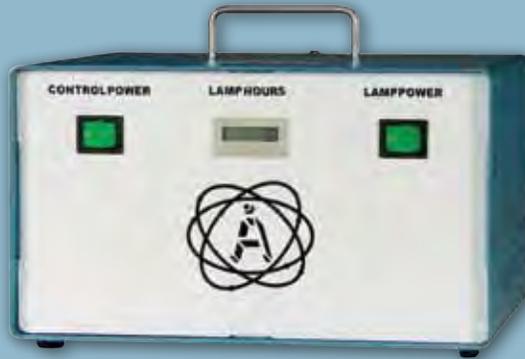


Mighty Spot

The Mighty Spot from American Ultraviolet is the ideal spot-curing answer for digital ink jet printers and anyone who cures inks on items such as small bottles, small devices and small substrates. The Mighty Spot provides high-performance with 400 Watts of broadband UV energy with a 1 1/4" arc length.

Standard features

- Lightweight lamp head assembly
- Lamp hour meter
- Broad spectrum (UVA, UVB, UVC and UVV) lamp for maximum versatility
- Dual-fan cooling system
- Accommodates part sizes up to 7" x 9" x 7"



CureMAX

The CureMAX system, from the Lesco UV division of American Ultraviolet, is clean room ready and provides the highest intensity UV light for uniformly and precisely curing a large area. Utilizing a shutter, the CureMAX can control the dosage of exposure applied to your parts. Though the maximum part size is 7.75"L x 7.75"W x 6.0"H), the rugged, standard stainless steel curing chamber can be customized to accommodate larger parts.

Standard features

- High intensity 300 w/in UV arc lamp
- Removable lamp module with built-in irradiator
- Shutter activated by footswitch or front panel "Go" button; I/O connection for PLC
- Power input 90-260 VAC; 50/60 Hz; Automatic switching



Spot



Dual Fiber Optic Light Guide



Single Liquid Light Guide



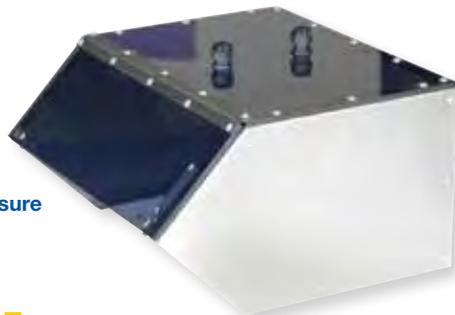
Triple Fiber Optic Light Guide



Quad Fiber Optic Light Guide



Spot Cure Radiometer



UV Safe Enclosure

Accessories

Light Guides

American Ultraviolet West/Lesco division offers Liquid Filled (LF) and Fiber Optic (FO) light guides. FO guides, like the proprietary fused FibreFire™ line, are ideal for use with the SuperSpot MAX 100w and 200 WHP systems.

Long lasting, and capable of very long run lengths, FibreFire is available in single, bifurcated, trifurcated and quad splits. A wide range of standard round, oval, linear or angled tip designs are also available. Varying combinations allow for full 360-degree coverage of intended cure sites in almost any application. And unlike conventional light guides, fused FibreFire light guides can be dozens of meters in length without the excessive loss of intensity at the tip.

American Ultraviolet West has an in-house design team ready to custom fabricate your FibreFire light guides for any special needs. All our light guides are capable of working with just about any UV Spot Cure System on the market.

Standard features

- Standard and custom light emitting end configurations, and leg lengths, for optimized process specific energy
- Single and multiple-furcated designs
- Long life - no degradation with long exposures or high intensity application processes
- Light profile delivery not affected by positional routing of guide

Radiometers

The Lesco UV division of American Ultraviolet offers a wide range of the highest quality, most accurate radiometers. UV and VIS radiometers are essential in process validation and final commissioning operations for literally any photocuring operation. With radiometry, damaged light guides, bulbs or reflectors can often be detected before they destroy long-term process integrity.

Other Accessories

- UV safe enclosures
- Spare bulbs, reflectors, IR filters
- Foot switches
- Datamax software package
- UV safety glasses
- In-house and on-site PM services

Curing

American Ultraviolet

For the best source of standard and custom UV curing systems, no one outshines American Ultraviolet. We've focused exclusively on UV since 1960. We've invested in the research and development necessary to stay at the forefront of the industry. We offer the highest quality products at competitive prices. And we back all of our systems with superior technical support and customer service.

American Ultraviolet is comprised of three operating divisions:

- **UV systems and components**

American Ultraviolet manufactures UV systems and components, including additive lamps, to primarily cure inks and coatings for a wide variety of applications, including screen and digital printing and wood processing.

- **Advanced UV integrated curing systems**

Aetek UV Systems provides advanced UV integrated curing systems for the narrow-web, industrial, and large-web shutter industries.

- **High-intensity UV spot-curing systems**

Lesco specializes in high-intensity UV spot-curing systems that bond substrates together using UV-curable adhesives for markets that include aerospace, electronics and medical devices, among others.

So, the next time you're in the market for curing equipment, give us a call, or visit us on line. We're confident it won't take you long to realize that there's no better source of UV under the sun than American Ultraviolet.

Conveyer | Spot | Shuttered | Handheld | Surface | Specialty | Custom



American Ultraviolet®

Since 1960. It's all we do.

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