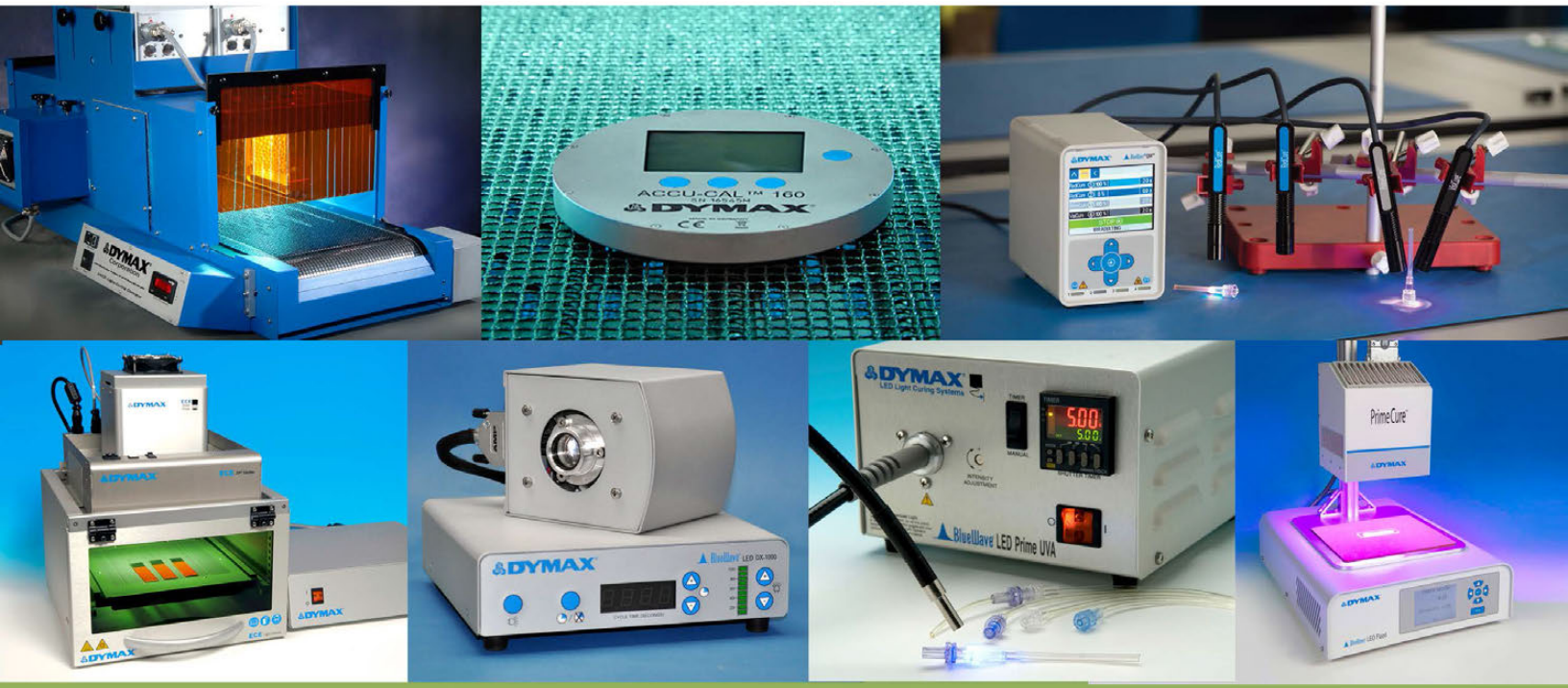
Light-Curing Equipment
Selector Guide



SPOTS | FLOODS | CONVEYORS | RADIOMETERS | ACCESSORIES

DYMAX®

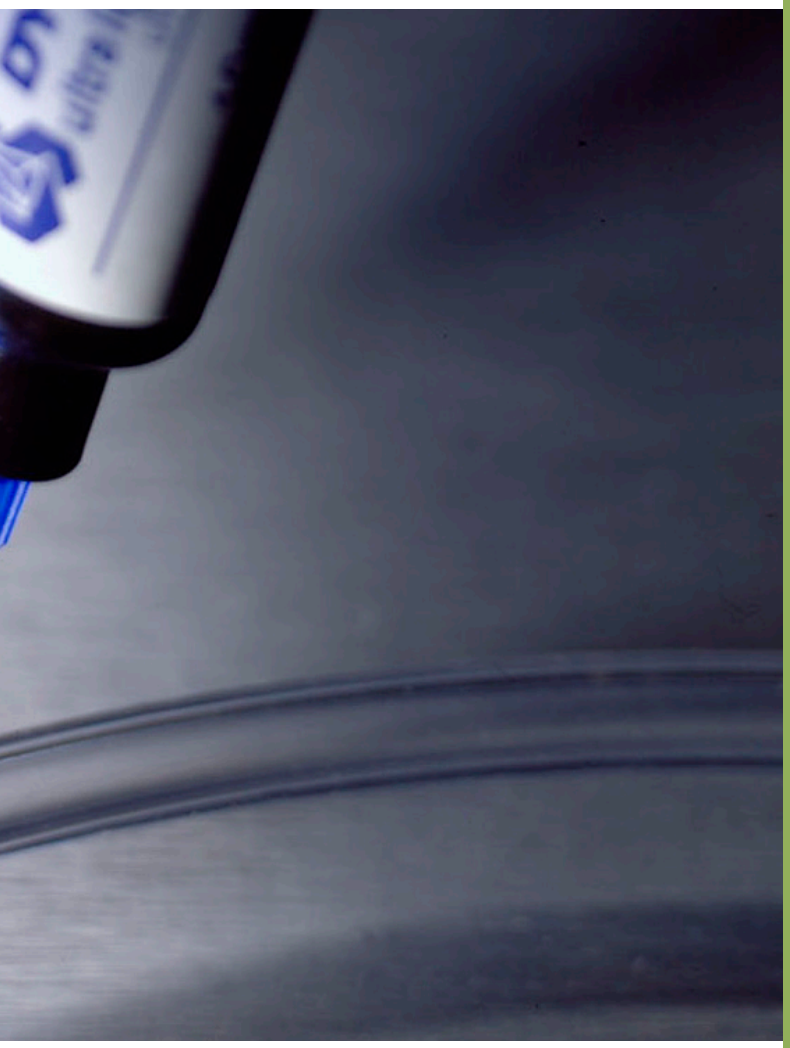
DYMAX LIGHT-CURING TECHNOLOGY

For more than 35 years, light-curing technology has allowed manufacturers to lower processing costs, produce higher quality products, and eliminate the use of harmful chemicals from the workplace. First introduced in the early 1980s for ink and thin coating applications, the technology has advanced tremendously over the last three decades, becoming the method of choice for many other industrial bonding, sealing, coating, potting, and tacking applications.

Light curing's popularity stems from its ability to deliver fast, durable bonds in seconds, on demand. Faster on-demand cures result in more efficient manufacturing processes by providing shorter cycle times, reduced labor costs, and reduced work-in progress. In addition to its efficiency, light-curing technology is also environmentally and worker friendly. It utilizes no explosive equipment, is associated with fewer health issues, and requires lower regulatory and disposal costs than other technologies.

Dymax has specialized in light-curing assembly solutions since the introduction of the technology. Today, we offer the broadest range of light-curable materials available and a complete line of conventional and LED light-curing equipment. Our light-curing equipment offers manufacturers safe, reliable curing in a number of different configurations including spot, flood, and conveyor systems.

Where other companies only supply products, we are committed to developing a true collaborative partnership, bringing our unsurpassed expertise in light cure technology and total process knowledge to our customers' specific application challenges. Because we understand the process



as a whole, and not just individual aspects of it, we can offer our customers a solution where chemistry and equipment work seamlessly together with maximum efficiency.

Our application engineering team works side-by-side with customers, providing assistance with product and process design, testing, evaluation, and pre-production trials throughout the life of the assembly process. That's the perfect combination of technology and expertise for a competitive advantage you can't get anywhere else.

Our Technology.
Your Advantage.™

This selector guide provides an overview of Dymax light-curing systems. Additional information for all systems is available on our website at dymax.com. For answers to your specific application questions, please contact our Application Engineering team. They are available to help recommend a light-curable material and design a dispensing and curing process for your specific application. Whenever possible, our Application Engineers will also conduct testing on your specific parts to ensure the chosen products meet all application requirements. If testing indicates our standard formulations or light-curing systems are not suitable, our Application Engineers can also help you find an alternative solution for your assembly process.

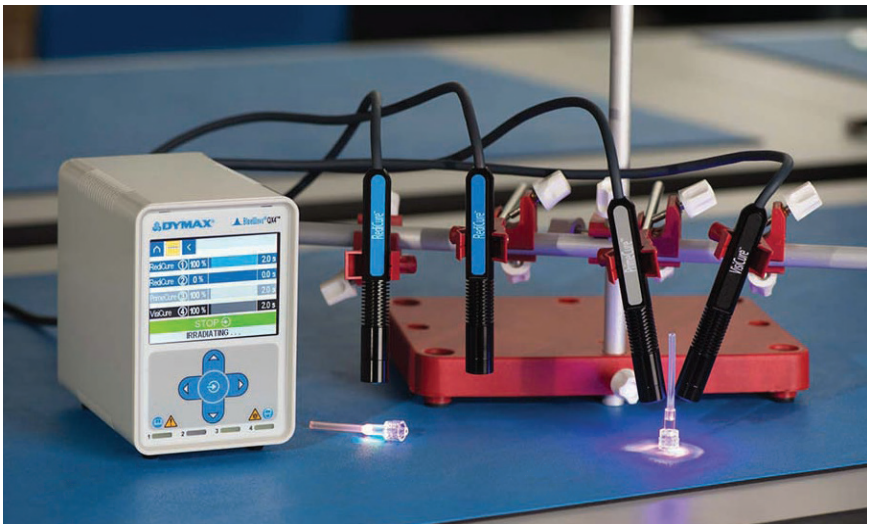
Equipment Try-and-Buy Program

Take advantage of the opportunity to evaluate our light-curing systems for two weeks free of charge through our Try-and-Buy Program. This program is a low-risk way to evaluate Dymax equipment in your application. After the two week trial period, rental of the unit will be billed on a monthly basis. Typically after 6 payments the system is yours to keep. If you're not satisfied with the system at any time, you can return it to us and end your rental. An assortment of conveyors, spot lamps, flood lamps, and focused-beam lamps have been allocated for this program for your in-house evaluation. Contact Dymax Customer Support for more information on this program.

UV BROAD-SPECTRUM & LED SPOT-CURING SYSTEMS

Spot-cure systems deliver optimized curing energy to a very precise location. They can be used manually by an operator in a turnkey bench-top system or incorporated into a high-speed automated assembly line. They are ideal for curing small areas quickly in R&D laboratory environments as well as low- and high-volume production applications in the medical, industrial, electronics, automotive, and optical industries.

Dymax spot systems are worker friendly, utilizing an integral timed/manual closure control and typically requiring little external shielding. Dymax systems also feature a patented intensity adjustment feature which aids users in both validating and controlling the light-curing process. Dymax spot systems are designed with either arc lamp or LED energy sources.



Conventional Arc Lamp Spot-Curing Systems

Dymax multi-spectrum spot lamps cure using high-pressure metal-halide lamps that produce light energy in the 300 to 450 nm range. These spot lamps can be equipped with rod lenses or single- or multiple-pole lightguides in various diameters (3, 5, and 8 mm) and lengths (up to 3 meters) for a variety of curing options.

LED (Light-Emitting Diode) Spot-Curing Systems

Dymax LED spot-curing systems generate curing energy using an array of surface-mounted LEDs instead of traditional metal halide or mercury bulbs. They are semiconductor energy sources that emit very discrete wavelengths of energy, resulting in a single, narrow, bell-shaped emission spectrum.

These units offer cooler cures compared to traditional lamp-style curing systems as well as longer service life that eliminates lamp replacement and reduces maintenance costs, higher electrical efficiency and instant on/off capability that lowers operating costs, and “green” attributes that eliminate mercury and ozone safety risks and handling costs.

BlueWave® 75 Version 2.0

The BlueWave® 75 spot lamp emits UVA and blue visible light (300-450 nm) and is designed for curing of UV and visible light-curable adhesives, coatings, and encapsulants. It contains an integral shutter which can be actuated by a foot pedal or external shutter actuation signal, making it ideal for both manual and automated processes. An auto-ranging power supply provides consistent performance at any input voltage (90-264 V, 47-63 Hz). Dymax also offers a wide range of long-lasting liquid and fiber lightguides in single and multi-legged configurations or various lengths.

Part Numbers

40078 - North American Version (115 V Standard Plug)
40077 - Asian Version (Type G Plug)
40183 - Unit with No Power Cord*

*The appropriate power cord is included for orders in Europe.

- Manual intensity adjustment, >9,000 mW/cm^2 initial intensity
- Integral shutter with digital timer - Foot switch or PLC activation
- Proprietary "Cool Blue™ Filter" virtually eliminates liquid light-guide degradation
- Extended exposure time settings to 99.99 seconds
- Controlled power-up sequence ensures proper temperature

- Manual intensity adjustment, >17,000 mW/cm^2 initial intensity
- Large, easy-to-read front panel LCD display
- Improved user interface for easier operation
- Extended exposure time settings to 9,999.9 seconds
- Controlled power-up sequence ensures proper temperature

BlueWave® 200 Version 3.0

The BlueWave® 200 3.0 is a high-intensity, light-curing spot-lamp system. This spot-curing lamp emits energy in the UVA and visible portion of the spectrum (300-450 nm) for light curing of adhesives, coatings, and encapsulants. Ideally suited for either manual or automated processes, the unit contains an integral shutter which can be actuated by a foot pedal or PLC and a universal power input (100-240 V, 50-60 Hz) that provides consistent performance at any voltage. A wide range of lightguides in various materials and configurations are available for use with this unit, providing application flexibility.

The BlueWave 200's new faceplate design features an improved operator interface with an easy-to-read LCD display. Also located on the faceplate is the unit's patented intensity adjustment control. This feature is important for validating an appropriate intensity range and maintaining that range during production. Users can manually adjust the unit's intensity to accommodate for bulb degradation and other factors that may affect intensity.

Part Numbers

41015 - North American Version (120V Standard Plug)
41014 - Asian Version (Type G Plug)
41013 - Unit with No Power Cord*

*The appropriate power cord is included for orders in Europe.

BlueWave® LED Prime UVA

The BlueWave® LED Prime UVA high-intensity spot-curing system offers many advantages over conventional spot- curing systems including: no bulbs to change, cool cures, no warm-up, and constant intensity for thousands of hours. The system generates curing energy using high-intensity LEDs (Light Emitting Diodes). This system emits maximum light intensity output through a lightguide, and allows users to adjust intensity from 0% to 100%. The relatively narrow frequency band produced by LEDs also generates cooler curing temperatures. The BlueWave® LED Prime UVA is excellent for spot curing various coatings, as well as adhesive bonding of polycarbonate, PVC, PET, metal, glass, and many other substrates.

Part Numbers

40322 - North American Version (120V Standard Plug)
40950 - Asian Version (Type G Plug)
40960 - Unit with No Power Cord*

*The appropriate power cord is included for orders in Europe.

- LED light-curing system (cures at 385 nm)
- Manual intensity adjustment, >15 W/cm^2 initial intensity
- Foot switch or PLC controlled exposure time
- Cool cures - ideal for thermally sensitive substrates
- Small footprint
- Long LED life (up to 20,000 hours)
- Instant on/off (no warm up)

- LED light-curing system (cures at 405 nm)
- Manual intensity adjustment, >15 W/cm^2 initial intensity
- Foot switch or PLC controlled exposure time
- Cool cures - ideal for thermally sensitive substrates
- Small footprint
- Long LED life (up to 20,000 hours)
- Instant on/off (no warm up)
- Constant intensity

BlueWave® LED VisiCure®

The BlueWave® LED VisiCure® high-intensity spot-curing system offers many advantages over conventional spot-curing systems including: no bulbs to change, cool cures, no warm-up, and high-intensity output for thousands of hours. The system generates curing energy using high-intensity LEDs. The LEDs produce visible light energy in a relatively narrow wavelength band centered at 405 nm, as contrasted to a typical broad band, high-pressure UV bulb (300-500 nm). This system emits maximum light intensity output through a lightguide, and allows users to adjust intensity from 0% to 100%. The relatively narrow frequency band produced by LEDs generates cooler curing temperatures. The BlueWave LED VisiCure is excellent for spot curing various coatings as well as adhesive bonding of polycarbonate, PVC, PET, metal, glass, and many other substrates.

Part Numbers

40162 - North American Version (120 V Standard Plug)
41063 - Asian Version (Type G Plug)
41064 - Unit with No Power Cord*

*The appropriate power cord is included for orders in Europe.

BlueWave® QX4™

The BlueWave® QX4™ high-intensity spot-curing system features all the benefits of LED-curing technology in a smaller, more versatile unit. This system is comprised of a controller and up to four LED heads. LED heads are available in 365, 385, and 405 nm and can be outfitted with 3-, 5-, or 8-mm diameter focusing lenses. LED heads and focusing lenses can be used in any combination and can be controlled through the system's variable mode, a feature that allows each head to be individually programmed for intensity and cycle times. Individual exposure times and intensity settings can be set in 1% increments for each LED head, giving users maximum curing flexibility.

In addition to its curing flexibility, the system also features an easy-to-use control interface that allows flexibility in setup and use of the unit. The unit can be activated by front panel, foot pedal, or through an I/O interface connection, allowing it to be easily incorporated into automated systems.

- One controller controls up to four heads
- LED heads in 365, 385, or 405 nm wavelengths
- Variable mode allows each LED head to be programmed independently
- Interchangeable/Replaceable focusing lenses in 3-, 5-, and 8-mm diameters
- Instant on/off for a more energy efficient unit with no warm-up period
- Efficient LED-head temperature management
- PLC interface that is easily incorporated into automated systems

A complete BlueWave® QX4™ system features a controller and up to four LED heads/lenses. Each LED head must have a lens in order to operate properly. Components are sold separately.

	PrimeCure™ 385 nm	VisiCure® 405 nm	RediCure™ 365 nm
Controller Only	**41572** Unit with No Power Cord* **41573** Asian Version (Type G Plug) **41571** North American Version (115V Standard Plug)		
LED Head	**41550**	**41551**	**41552**
Lens Only	**41553** 3-mm Lens **41557** 5-mm Lens **41560** 8-mm Lens	**41554** 3-mm Lens **41558** 5-mm Lens **41561** 8-mm Lens	**41556** 3-mm Lens **41559** 5-mm Lens **41562** 8-mm Lens
Accessories & Spare Parts	**41563** 0.5 M Extension **41564** 1.0 M Extension **41565** 1.5 M Extension **41566** 2.0 M Extension	**41548** North American Power Cord (120V Standard Plug) **41549** Asian Power Cord	

*The appropriate power cord is included for orders in Europe.

BlueWave® MX-150™

This curing system provides manufacturers with the curing flexibility they need, in a smaller, more efficient design. The unit is comprised of two main parts, a controller with an easy-to-use touchscreen interface and a high-intensity LED emitter which is uniquely designed to offer higher, more consistent curing intensity than traditional spot-curing systems. Curing energy is created using an LED chip in the emitter, unlike traditional spot-cure systems, where it is located in the controller. Locating the LED chip at the point-of-cure provides more consistent curing by addressing potential intensity loss caused by the use of long or bent lightguides.

With this new design, the system can be truly tailored to users' curing needs – allowing them to choose from three different wavelength LED emitters (365, 385, or 405 nm) so optimal cures are achieved. Users also have endless set up flexibility; for automated curing processes, the emitter can be easily mounted to robotic arms or further from the controller without fear of intensity variations. When used as a bench-top curing system, the unit can be paired with a stand and shielding or a Wolf-style lightguide can be connected to the system for specialized applications.

- High Intensity of up to 40 W/cm^2 for faster curing
- Touchscreen interface for easier operation
- Emitter design for set up flexibility and consistent intensity
- LED emitters in 365, 385, and 405 nm wavelengths
- Admin and production modes with the ability to save curing programs for repeated use
- Instant on/off for a more energy efficient unit with no warm-up period
- PLC interface that is easily incorporated into automated systems

A complete BlueWave® MX-150™ system features a controller and an LED emitter. Components are sold separately. Wolf-style lightguides and other accessories can be added for specific applications. See pages 9 and 10 for additional accessories.

	PrimeCure™ 385 nm	VisiCure® 405 nm	RediCure™ 365 nm
Controller Only	**42380** Unit with No Power Cord* **42379** Asian Version (Type G Plug) **42378** North American Version (115V Standard Plug)		
LED Emitter Note: 5-mm lightguide simulator comes with every emitter	**42337**	**42338**	**42336**
Accessories	**36987** 5-mm Lightguide Simulator **41148** Adjustable Taper Shoulder Focusing Lens (5 mm)		

*The appropriate power cord is included for orders in Europe.

Lightguides

Lightguides transmit UV and visible energy from a source mounted inside of a spot-curing unit to the curing area. When choosing a lightguide for your system, the following factors should be considered:

Length – Lightguides are commonly one meter long although other lengths are available.

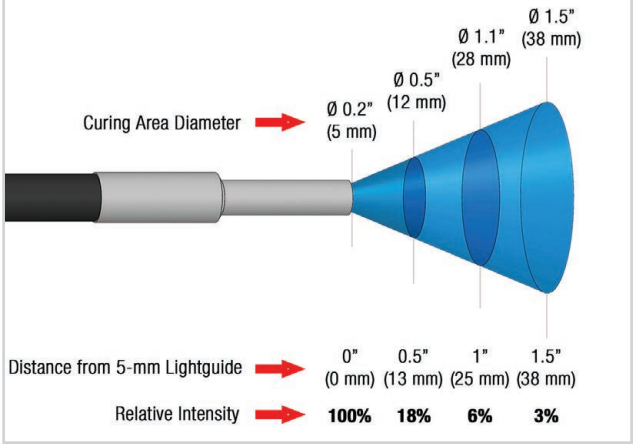
Diameter – Single-pole lightguides are available with 3-mm, 5-mm, or 8-mm inside diameters. Although the 5-mm lightguide will register a higher intensity, the 8-mm lightguide provides more curing power (intensity x area) because a larger lightguide opening captures more of the light emitted from the bulb. Each pole of a multi-pole lightguide has an inside diameter of 3 mm.

Multiple Poles – Light emitting from a spot lamp can be channeled through a single lightguide (single pole) or split between multiple lightguides (multiple poles). Each pole of a multi-pole lightguide emits equal intensity (typically ±10% for liquid-filled lightguides) and all share a common shutter. Both liquid-filled and quartz-fiber multi-pole lightguides are available from Dymax.

Connection – There are basically two types of connectors used in the spot lamp industry, "Wolf" and "D" connectors. Dymax provides lightguides with both connector types, although "D" connectors are an industry standard and compatible with current Dymax lamp designs (older Dymax designs utilized "Wolf" connectors).

Curing Area/Intensity vs. Distance – The UV and visible light emitted from a lightguide diverges. As a result, intensity decreases and curing area increases with distance from the end of the light guide. The chart to the right describes this relationship clearly for the 5-mm liquid lightguide.

Curing Area/Intensity vs. Distance Using a 5-mm Lightguide



Part Number	Lightguide Description (all noted are liquid filled; quartz fiber are also available)		Compatible Dymax Systems
5720	Single Pole	5 mm x 1 M	All lighguides listed are compatible with: BlueWave® 75, BlueWave® 200, BlueWave® LED Prime UVA, BlueWave® LED VisiCure®, BlueWave® DX-1000, BlueWave® DX-1000 VisiCure®
5721	Single Pole	5 mm x 1.5 M	
5722	Single Pole	8 mm x 1 M	
38476	Two Pole	3 mm x 1 M	
38477	Three Pole	3 mm x 1 M	
38478	Four Pole	3 mm x 1 M	
39043	Single Pole - Wolf Style	3 mm x 0.5 M	BlueWave® MX-150™
38707	Single Pole - Wolf Style	3 mm x 1.5 M	
38708	Single Pole - Wolf Style	3 mm x 2 M	
37043	Two Pole - Wolf Style	3 mm x 1 M	
35101	Single Pole - Wolf Style	5 mm x 0.5 M	
35102	Single Pole - Wolf Style	5 mm x 1 M	
36238	Single Pole - Wolf Style	5 mm x 1.5 M	
38998	Single Pole - Wolf Style	5 mm x 2 M	

Accessories

Lightguide Mounting Stands

39700 - Single Lightguide Mounting Stand
Utilizes a 24" flexible arm for mounting 3, 5, and 8-mm lightguides. This stand offers a 5" x 5" (127 mm x 127 mm) working area and allows repeatable, hands-free spot curing.

41325 - Acrylic Lightguide Mounting Stand
Multiple lightguides can be securely mounted on this stand for repeatable, hand-free spot curing.

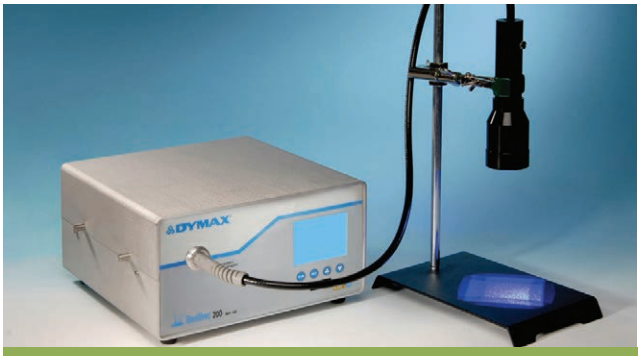
41595 - Lightguide Stand Expansion Kit
Allows the Dymax acrylic lightguide mounting stand to hold up to four lightguide poles.

Mounting Stands: PN 39700 (Left) & PN 41325 (Right)

Rod Lenses

Turn a spot into a flood lamp with shutter! A rod lens re-focuses the UV light emitted from a spot lamp to create a very uniform (<5% variation) 2" x 2" (50.8 mm x 50.8 mm) or 5" x 5" (127 mm x 127 mm) curing area. These rod lenses attach to the UV light-curing spot system using an 8-mm lightguide (sold separately).

38699 - Rod Lens, 2" x 2" (50.8 x 50.8 mm) Area
38698 - Rod Lens, 5" x 5" (127 x 127 mm) Area



BlueWave® 200 with Rod Lens

Lightguide Terminators

Lightguide terminators can be attached to the end of a lightguide to help users get UV light to those difficult-to-reach locations.

39029 – 3 mm/60°
39030 – 3 mm/90°
38042 – 5 mm/60°
38049 – 5 mm/90°
39334 – 8 mm/60°
39333 – 8 mm/90°

Lightguide Simulators

A lightguide simulator can be used to accurately measure the direct light intensity from the system's energy source.

38408 - Lightguide Simulator, 7-mm Diameter
36987 - Lightguide Simulator, 5-mm Diameter

Emitter Stands & Shields

42390 - Emitter Mounting Stand
Compatible with the BlueWave® MX-150™.

42426 - Emitter Holder Assembly Bracket
Securely mount an emitter to the side of the BlueWave® MX-150™ controller for configurations using a lightguide.

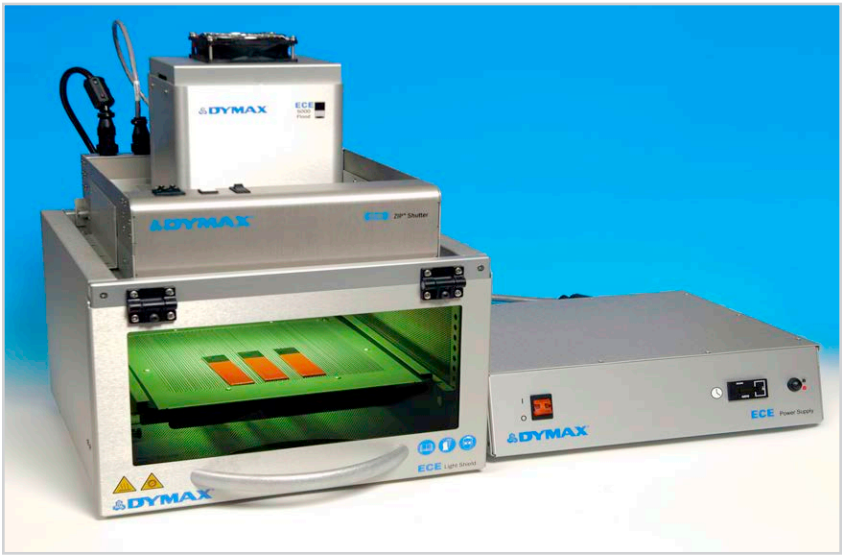
41395 - Three-Sided Acrylic Shield
Compatible with the BlueWave® MX-150™. A simple and cost effective three-sided shield that is removed manually.

Emitter Mounting Stand with Three-Sided Acrylic Shield (Left) & Holder Assembly Bracket (Right)

BROAD-SPECTRUM & LED FLOOD-CURING SYSTEMS

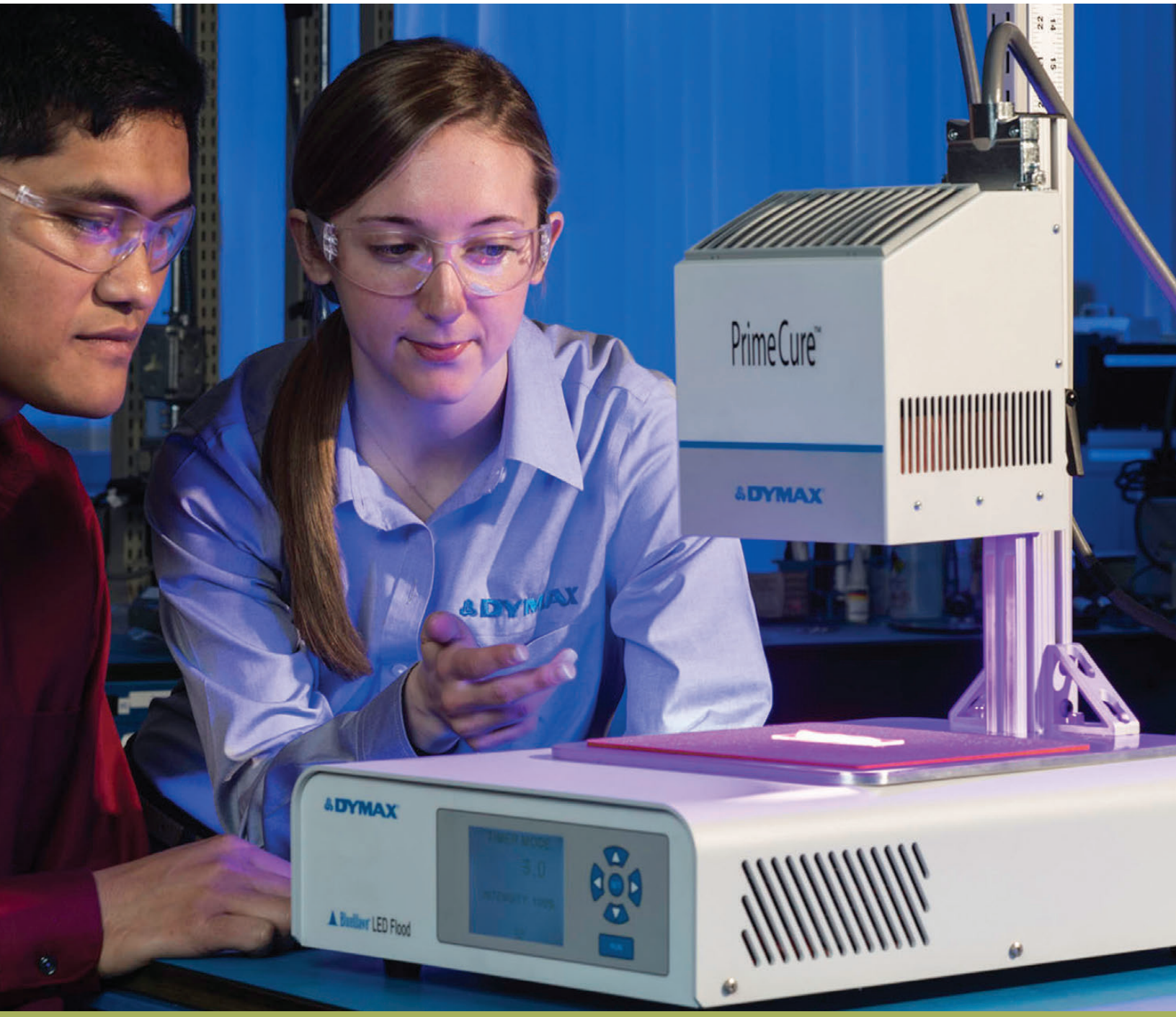
Flood-style curing systems usually provide moderate to high-intensity light. These units have the advantage of being able to cure a tray of parts, or parts with large bonded or coated areas. These kinds of lamps are commonly integrated into existing manufacturing processes by mounting them above high-speed assembly lines. Fairly deep cures can be achieved by these relatively inexpensive units at 10- to 30-second exposure times. Wide-area flood lamps are used successfully to cure substrates that are somewhat heat-sensitive, such as certain plastics.

Dymax currently offers both broad-spectrum and LED flood curing systems to fit a wide variety of curing applications. Shutter assemblies, mounting stands, shields, and other accessories are available to order to create custom bench-top curing systems. CE marked units are available for manufacturers in Europe.



Broad-Spectrum Flood Lamps

Dymax broad-spectrum flood curing systems use moderate- to high-intensity (105-225 mW/cm^2) UV/visible light to cure UV light-curable adhesives, coatings, and inks in as little as 5-30 seconds. Systems are available with 5" x 5" (127 mm x 127 mm) or 8" x 8" (203 mm x 203 mm) curing areas. They come standard with a 400 watt metal-halide bulb but can be outfitted with longwave, shortwave, UV, and visible replacement bulbs to fit unique applications. All bulbs have a long service life and come with a 2,000 hour warranty.



LED Flood Curing Systems

Dymax LED flood lamp systems use high-intensity LEDs to cure a 5" x 5" (12.7 cm x 12.7 cm) area. Because these flood systems use a high-intensity LED as the curing source they produce faster cure times, more consistent frequency and intensity output, a cooler curing environment for thermally sensitive substrates, and longer bulb life than conventional arc lamps. Systems are available in three different wavelength arrays (365, 385, and 405 nm) so users can fully optimize the curing process between their light-curable material and the curing system.

EC-Series Flood Lamp Systems

EC-series flood-lamp systems are ideal for light curing large parts or curing many small parts simultaneously. With intensities ranging from 105-225 mW/cm^2, Dymax flood lamps are capable of curing most UV light-curable adhesives, sealants, and coatings, tack free in 30 seconds or less. These flood lamps can be incorporated into automated assembly systems or mounted onto conveyors. Dymax flood units can also be used as turnkey bench-top units (with optional shutters).

- Large curing area, 5" x 5" (12.7 cm) or 8" x 8" (20.3 cm)
- Adjustable lamp height
- 100% shielding with safety interlock kit
- Two bulb options: shortwave or longwave

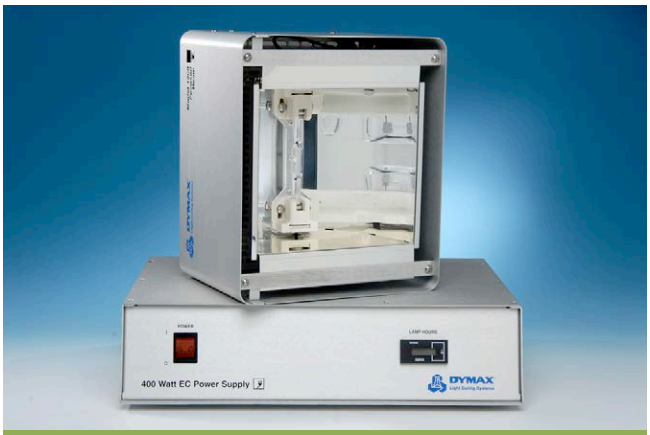
	1200-EC	2000-EC	5000-EC
Typical Intensity Output, mW/cm^2*	350	105	225
Curing Area	1" x 6" (2.5 cm x 15.2 cm)	8" x 8" (20.3 cm)	5" x 5" (12.7 cm)
Working Distance	2"-6" (5.08 cm - 15.24 cm)		
Typical Degradation	<20% over 2,000 hours		
Power Requirements	90-264V, 47-63 Hz		

* Measured with a Dymax ACCU-CAL™ 50 Radiometer (320-395 nm) at a lamp height of 3" using a standard metal halide bulb.

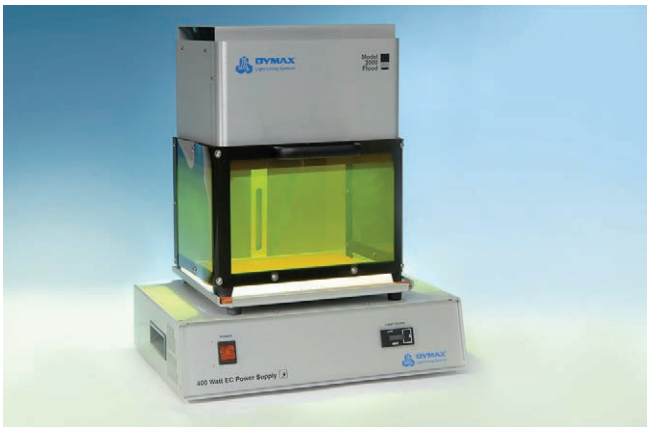
System Options**	1200-EC	2000-EC	5000-EC
Modular (No Shielding or Shutter)	**38110**	**38105**	**38100**
With Mounting Stand	**39930**	**39730**	**39830**
With EC Light Shield	**39920**	**39720**	**39820**
With EC Light Shield & Manual Shutter	-	**39723**	**39823**
With EC Light Shield & ZIP™ Shutter	-	**39721**	**39821**

**All part numbers include a North American power cord (120V plug)

5000-EC Shown with ZIP™ Shutter & Light Shield



Modular 2000-EC Flood

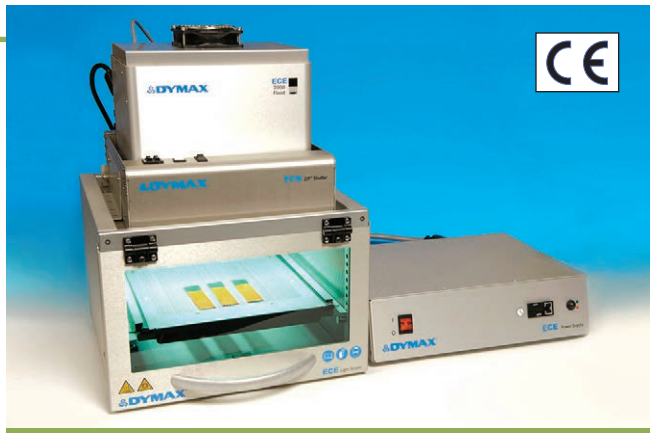


2000-EC Shown with Mounting Shield

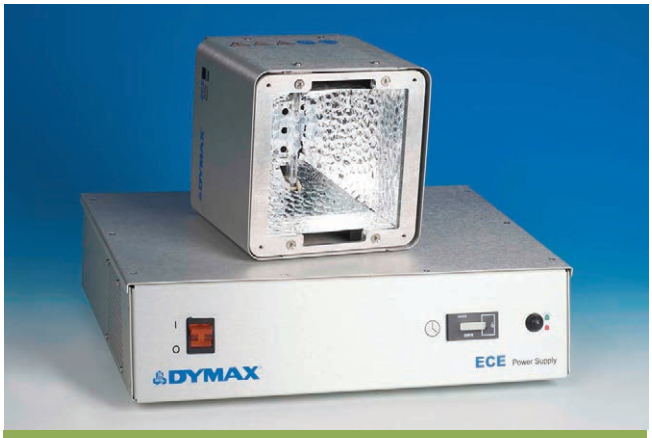
ECE-Series Flood Lamp Systems

Dymax UV light-curing flood-lamp systems are ideal for light curing large parts or curing many small parts simultaneously. With intensities ranging from 105-225 mW/cm^2, Dymax flood lamps are capable of curing most UV light-curable adhesives, sealants, and coatings, tack free in 30 seconds or less. These flood lamps can be incorporated into automated assembly systems or mounted onto conveyors. Dymax flood units can also be used as turnkey bench-top units (with optional shutters).

- Large curing area, 5" x 5" (12.7 cm) or 8" x 8" (20.3 cm)
- Adjustable lamp height
- 100% shielding with safety interlock kit
- Two bulb options: shortwave or longwave
- Extended exposure time settings to 9,999.9 seconds
- Controlled power-up sequence ensures proper temperature



ECE 2000 Shown with ZIP™ Shutter & Light Shield



Modular ECE 5000

	ECE 2000	ECE 5000
Typical Intensity Output*	105 mW/cm^2	225 mW/cm^2
Curing Area	8" x 8" (20.3 cm)	5" x 5" (12.7 cm)
Working Distance	2"-6" (5.08 cm - 15.24 cm)	
Typical Degradation	<20% over 2,000 hours	
Power Requirements	100-240 VAC, +/- Single Phase 50-60 Hz	

* Intensity readings vary widely depending on the make and model of the radiometer. These intensities were measured with the ACCU-CAL™ 50 radiometer

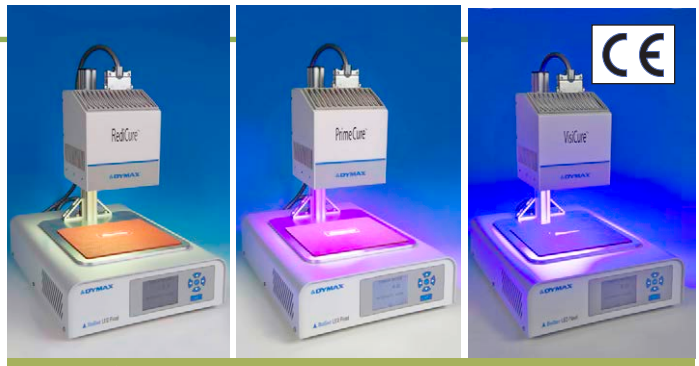
	ECE 2000 (8" x 8" (20.3 cm x 20.3 cm))	ECE 5000 (5" x 5" (12.7cm x 12.7cm))
Modular (No Shielding or Shutter)	**40985** - North American Version (120V Plug) **40995** - Asian Version (Type G Plug) **40965** - No Power Cord*	**40925** - North American Version (120V Plug) **40935** - Asian Version (Type G Plug) **40915** - No Power Cord*
With Mounting Stand	**41170** - North American Version (120V Plug) **41180** - Asian Version (Type G Plug) **40920** - No Power Cord*	**41130** - North American Version (120V Plug) **41140** - Asian Version (Type G Plug) **40970** - No Power Cord*
With ECE Light Shield	**41190** - North American Version (120V Plug) **41200** - Asian Version (Type G Plug) **40870** - No Power Cord*	**41150** - North American Version (120V Plug) **41160** - Asian Version (Type G Plug) **40900** - No Power Cord*
With ECE Light Shield & Manual Shutter	**40810** - North American Version (120V Plug) **40860** - Asian Version (Type G Plug) **40790** - No Power Cord*	**40940** - North American Version (120V Plug) **41100** - Asian Version (Type G Plug) **40850** - No Power Cord*
With ECE Light Shield & ECE ZIP™ Shutter	**41040** - North American Version (120V Plug) **41060**- Asian Version (Type G Plug) **40830**- No Power Cord*	**41030** - North American Version (120V Plug) **41050** - Asian Version (Type G Plug) **40840** - No Power Cord*

*The appropriate power cord is included for orders in Europe.

BlueWave® LED Flood

The BlueWave® LED Flood System offers high-intensity curing energy over a 5" x 5" (12.7 cm x 12.7 cm) area. Cure times in the 5-30 second range are typical when using Dymax light-curable materials. This unit is simple to operate and can be used as a stand-alone system or easily integrated into automated assembly systems. Dymax offers the system with three different wavelength arrays (365, 385, and 405 nm) so users can fully optimize the curing process between their light-curable material and the curing system.

The BlueWave LED Flood System offers all the benefits of LED light-curing technology including more consistent intensity, less energy consumption, a shutter-free design, instant on/off, and cooler curing temperatures.



BlueWave® LED Flood (From left: RediCure™, PrimeCure™, & VisiCure®)

- Large curing area, 5" x 5" (12.7 cm) active area
- More consistent frequency and intensity for better process control
- Greener technology - no ozone generation, mercury free, & lower energy consumption than conventional lamps
- Shutter-free design for reliable operation with lower mainenance costs (no moving parts)
- LED flood array available in 365, 385, and 405 nm wavelengths
- Unit can be used as a bench-top cure system or incorporated into an automated process or conveyor

	RediCure™ 365 nm	PrimeCure™ 385 nm	VisiCure® 405 nm
Typical Intensity Output, mW/cm²*	500	850	950
Static Uniformity	0.4	0.35	0.4
Curing Area	5" x 5" (12.7 cm - 12.7 cm)		
Power Requirements	100 – 240 VAC 50/60Hz (Auto-Ranging)		

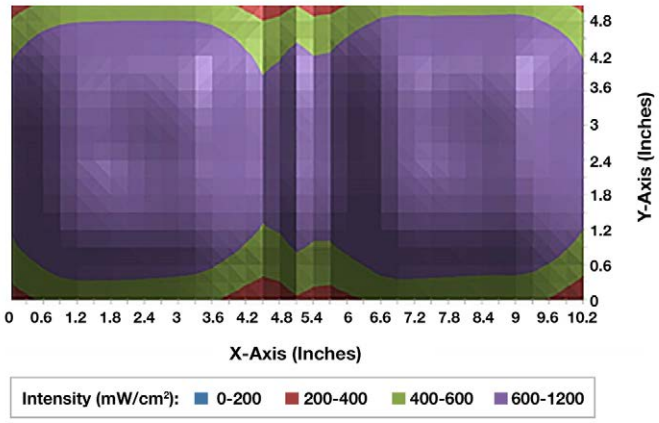
* When measured at 25 mm distance with an ACCU-CAL™ 50 LED radiometer in flood mode.

SYSTEM UNIFORMITY

When compared to other LED units, the BlueWave LED Flood provides much higher intensity and more overall uniformity across the active area. These benefits allow shorter cure times, and in turn, faster manufacturing throughput.

The graph to the right illustrates the Dymax BlueWave LED Flood's high uniformity when multiple arrays are positioned next to each other. This is especially important in conveyor applications to ensure a consistent cure across the entire substrate.

BlueWave® LED Flood with Two VisiCure® Arrays (Mounted Face-to-Face)



	RediCure™ (365 nm)	PrimeCure™ (385 nm)	VisiCure® (405 nm)
North American Version (120V Standard Plug)	41292	41287	41288
Asian Version (Type G Plug)	41289	41294	41291
Unit with No Power Cord*	41262	41261	41260

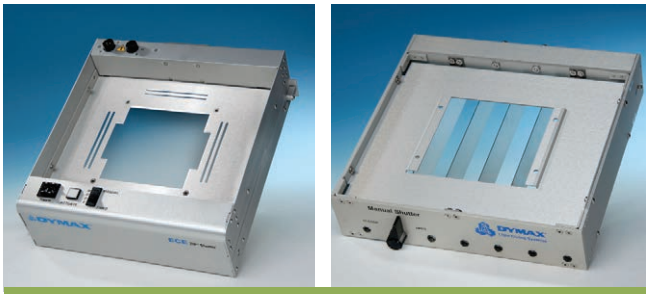
*The appropriate power cord is included for orders in Europe.

Accessories

Dymax light-curing flood lamps can be outfitted with the shutters and shielding shown below. Additional shutters, enclosures, and accessories may be available.

Shutters

Turning a bulb off and on between cycles is not practical since each off/on cycle shortens bulb life and requires a 5-minute warm-up period. A shutter, however, can be used to shield a flood system between cycles. Shutters control exposure time, reduce heat on the work surface, and shield operators from exposure to UV light. Dymax carries two types of shutters, ZIP™ and manual.



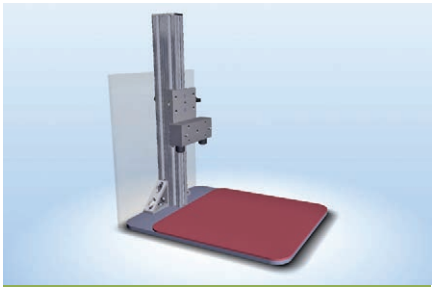
ECE ZIP™ Shutter (Left) & Manual Shutter (Right)

37863 – ZIP™ Shutter (EC Floods)
Timed and manual modes. Foot pedal or PLC controlled.

40885 – ZIP™ Shutter (ECE Floods)
Timed and manual modes. Foot pedal or PLC controlled.

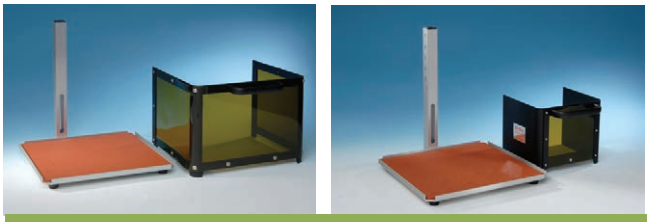
35572 – Manual Shutter (EC & ECE Floods)
Most cost-effective shutter system.

Mounting Stands



BlueWave® LED Mounting Stand Kit

41268 - BlueWave® LED Flood Mounting Stand Kit
A simple and cost effective mounting stand with adjustable height.



Mounting Stand Kit - 2000 (Left) & 5000 (Right)

38290 - Mounting Stand Kit (2000-EC or ECE)
Cost-effective, mounting stand and 3-sided shielding. Not compatible with Dymax shutters.

38289 - Mounting Stand Kit (5000-EC or ECE)
Cost-effective, mounting stand and 3-sided shielding. Not compatible with Dymax shutters.

Shielding

Dymax offers several standard shielding options for flood lamps. All shields are 100% UVA blocking and visibly tinted.

EC Flood Light Shield (Left) & Acrylic Shield (Right)

41175 - EC Flood Light Shield
360° shielding with lifting door and sliding curing shelf. Compatible with Dymax shutters.

40785 - ECE Flood Light Shield
360° shielding with lifting door and sliding curing shelf. Safety Interlock feature included. Compatible with Dymax shutters.

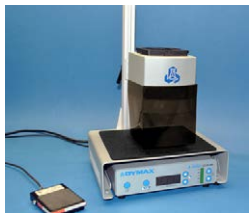
41321 - BlueWave® LED Flood Light Shield
360° shielding with a swing-up door and slide-out shelf. Not compatible with Dymax shutters.

Note: This light shield requires version 3.0 or greater BlueWave® LED flood software. Dymax can determine software version based on the BlueWave® LED flood serial number.

41395 - BlueWave® LED Acrylic Shield
A simple and cost effective 3-sided shield that is removed manually.

FLEXIBLE LED SPOT/SMALL-AREA FLOOD CURING SYSTEMS

The BlueWave® LED DX-1000 system is a unique and flexible LED light-curing system that can be easily configured to operate as either a small-area flood or a spot-cure system. This system is available in 385 nm or VisiCure® 405 nm curing frequency models. These units provide all the benefits of Dymax's advanced LED light-curing technology in a flexible system design that can adapt to meet changing business and application needs. To accommodate a larger variety of setup needs, the systems are available in four packages:



Base System - includes irradiator head with collimating optic #1, controller, foot switch, and magnetic shielding

Lab Developer Package - includes controller, irradiator head, 2 interface cables, lightguide adapter, collimating optic #1, bench-top stand with silicone pad, bench-top base, 5-mm lightguide, foot switch, and magnetic shielding.

Flood Mode Package - includes controller, irradiator head, collimating optic #1, bench-top stand with silicone pad, magnetic shielding, foot switch, and interface cable.

Spot Mode Package - includes controller, irradiator head, 5-mm lightguide, lightguide stand, lightguide adapter, foot switch, interface cable, lightguide mounting stand, and bench-top base.

BlueWave® LED DX-1000

The Dymax BlueWave® LED DX-1000 is a flexible LED light-curing system that utilizes liquid-filled or fiber-optic quartz lightguides to deliver up to 15 W/cm² of curing energy in a spot-cure configuration. The flexibility of the DX-1000 also allows it to be configured to deliver up to 1 W/cm² of energy over a 1" x 1.5" (2.5 cm x 3.8 cm) area for applications that require larger exposure area. The BlueWave LED DX-1000 provides all the benefits of Dymax advanced LED light-curing technology in a flexible system design that can adapt to meet changing business and application needs.

	Base System	Lab Developer	Flood Mode	Spot Mode
North American Version (120V Standard Plug)	-	41020	40760	40990
Asian Version (Type G Plug)	-	41010	40580	40590
Unit with No Power Cord*	40560	41000	40750	40980

*The appropriate power cord is included for orders in Europe.

- LED with 385 nm narrow-spectrum output
- Able to convert unit to a spot lamp or a mini-flood lamp for application flexibility
- Adjustable intensity from 5-100% in 1% steps
- Instant on/off with 100% duty-cycle capability
- Shutter-free design
- Lower energy consumption than conventional UV lamps (<100 Watts)

- LED with 405 nm narrow-spectrum output
- Able to convert unit to a spot lamp or a mini-flood lamp for application flexibility
- Adjustable intensity from 5-100% in 1% steps
- Instant on/off with 100% duty-cycle capability
- Shutter-free design
- Lower energy consumption than conventional UV lamps (<100 Watts)

BlueWave® LED DX-1000 VisiCure®

The Dymax BlueWave® LED DX-1000 VisiCure® is a flexible LED light-curing system which produces visible light energy in a relatively narrow wavelength band centered at 405 nm. This system utilizes liquid-filled or fiber-optic quartz lightguides to deliver up to 15 W/cm² of curing energy in a spot-cure configuration. It can also be configured to deliver up to 1 W/cm² of energy over a 1" x 1.5" (2.5 cm x 3.8 cm) area for applications that require larger exposure area. This system provides all the benefits of Dymax advanced LED light-curing technology in a flexible system design that can adapt to meet changing business and application needs.

	Base System	Lab Developer	Flood Mode	Spot Mode
North American Version (120V Standard Plug)	-	41057	41049	41053
Asian Version (Type G Plug)	-	41056	41048	41052
Unit with No Power Cord*	41046	41055	41047	41051

*The appropriate power cord is included for orders in Europe.

Accessories

BlueWave® LED DX-1000 curing systems can be used with a variety of accessories to customize the system to the user's application.

Mounting Stands / Bases

Bench-Top Stand (Left) & Bench-Top Base (Right)

40725 – Bench-Top Stand with Silicone Pad
This bench-top stand allows for easy, adjustable mounting of the system's irradiator head above a curing platform.

40755 – Bench-Top Base and Lightguide Adapter Kit
This bench-top base prevents movement of the irradiator head while using the system in spot mode. Also includes a lightguide adapter.

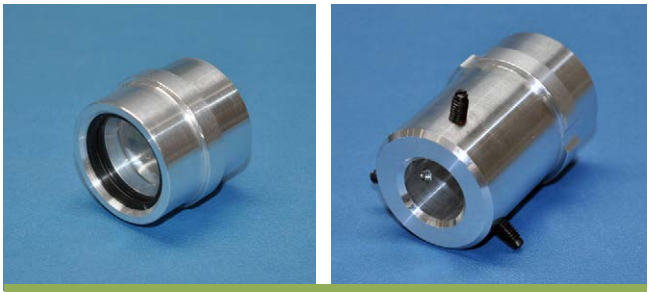
Lightguides

Single-Pole (left) and Four-Pole (right) Lightguides

Liquid-Filled Lightguides

5720 – Single-Pole, 5-mm x 1 M
5721 – Single-Pole, 5-mm x 1.5 M
5722 – Single-Pole, 8-mm x 1 M
38476 – Two-Pole, 3-mm x 1 M
38477 – Three-Pole, 3-mm x 1 M
38478 – Four-Pole, 3-mm x 1 M

Misc

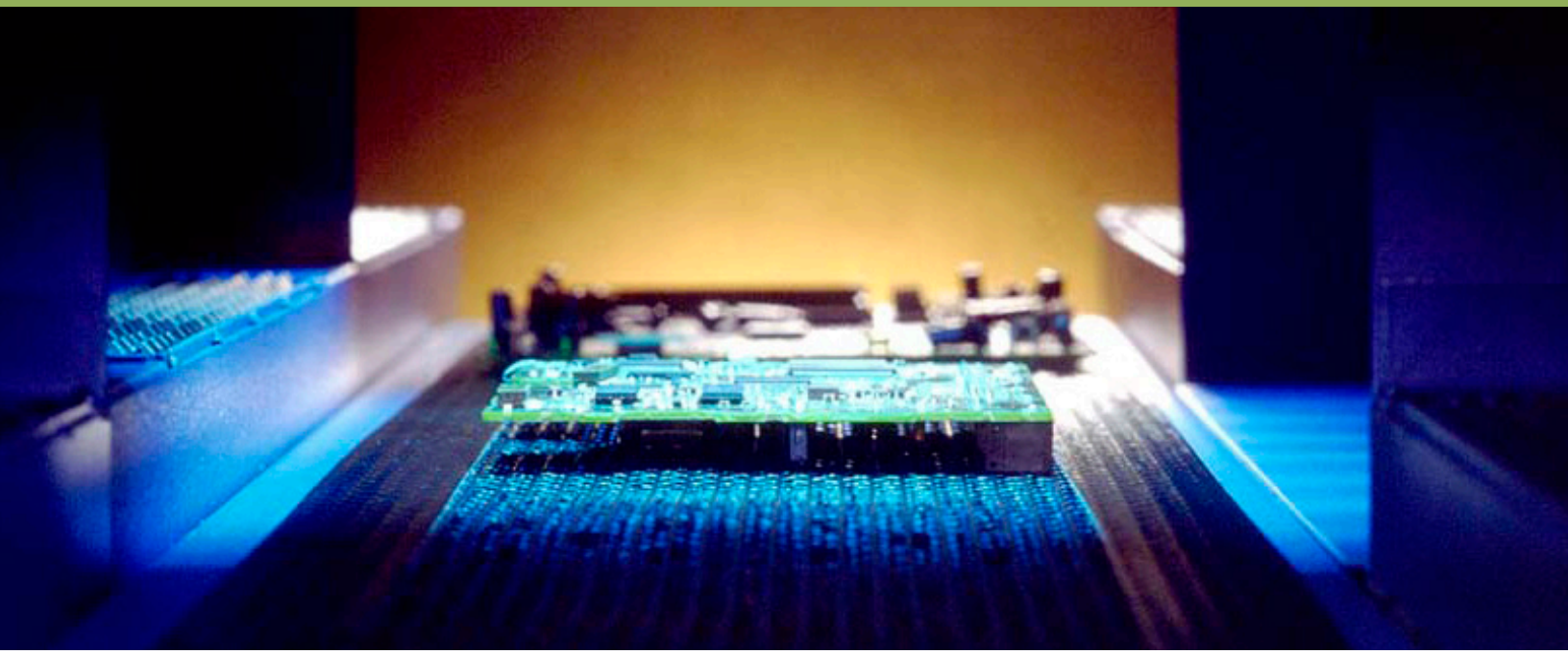


2-Lens Collimating Optic #1 (Left) & Lightguide Adapter (Right)

40581 - 2-Lens Collimating Optic #1

40743 - Lightguide Adapter
Required to use the system as a spot lamp.

UV BROAD-SPECTRUM & LED CONVEYOR SYSTEMS



Dymax UVCS-series conveyor systems are an ideal choice for manufacturers who need to cure light-curable adhesives, coatings, and inks on larger parts or on large quantities of smaller parts. Standard UVCS systems consist of a 12"-wide belt that can be outfitted with a variety of broad-spectrum and LED curing flood lamps. Conveyors outfitted with broad-spectrum flood lamps are available with standard metal halide (longwave UV), mercury (shortwave UV), or visible bulbs to accommodate various applications. Conveyors that utilize LED floods are available in 365, 385, and 405 nm curing wavelengths. Specialty conveyors are available for applications that require a wider belt or for parts that need to be cured from the sides and/or the bottom.

All Dymax conveyor systems are designed to offer consistent, fast, and safe curing. The systems are extremely easy to use and keep users safe by offering complete shielding from UV light. Consistent belt transport speed, adjustable lamp height, and stable lamp intensity provide a consistent light-curing process for repeatable process and optimized throughput.

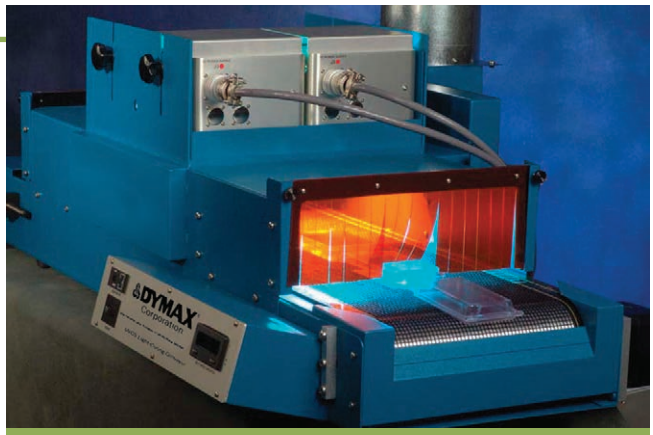
Custom Conveyor Systems

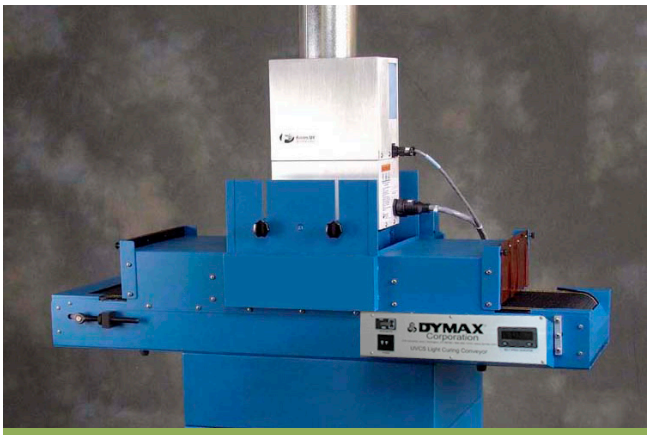
Looking for a wider conveyor, shorter conveyor, or one with more clearance? Dymax can custom design a conveyor to your specifications. Contact Dymax for more information on customized conveyors.

UVCS 2.0 Conveyors

The standard Dymax conveyor platform, the UVCS series, has a belt width of 12" (304.8 mm) and can be outfitted with a number of different UV light-curing systems. Belt speed is accurately measured using an optical encoder and displayed on a digital LCD. The UVCS series conveyors are completely shielded from UV light for user protection. The standard UVCS 2.0 conveyor is most commonly outfitted with Dymax 5000-EC or Fusion® F300S curing lamps.

- Multiple flood or focused-beam configurations available
- Up to 10" clearance available (with optional risers)
- Accurate belt speed (using an optical encoder)





	5000-EC Lamps								Fusion F300S Lamps	
	One 5000-EC (CM)*		Two 5000-ECs (CM)*		Two 5000-ECs (FW)**		Four 5000-ECs (FW)**		One Fusion F300S (CM)*	Two Fusion F300S (FW)**
North American Version (120V Standard Plug)	**39060**	**39065**	**39070**	**39075**	**39080**	**39085**	**39100**	**39105**	**39150**	**39160**
Asian Version (Type G Plug)	-		-		-		-		**42006**	**42007**
Conveyor Voltage	120V	220/230V	120V	220/230V	120V	220/230V	120V	220/230V	220/230V	
Amperage (With Lamps)	4.8A	2.4A	4.8A	2.4A	4.8A	2.4A	4.8A	2.4A	2.4A	
Belt Width	12" (30 cm)									
Belt Speed	1-27 feet per minute									
Cure Width	6" (15 cm)				12" (30 cm)				6" (15 cm)	12" (30 cm)
Lamp Adjustment Range	1.7" to 5.5" (4.3 cm to 14 cm)									
Max. Parts Height	4.25" (10.8 cm) | Adding risers increases to 10" (25.4 cm)									
Overall Dimensions (L x W x H) (Not Including Lamps)	50.5" x 29.8" x 16.4" (128 cm x 76 cm x 42 cm)									
Shipping Weight (With Crates & Lamps)	350-400 lbs. (159-181 kg)									
Crated Dimensions (L x W x H)	69" x 44" x 29" (175 cm x 112 cm x 74 cm)									

* CW (Center Mounted) - These conveyors have center-mounted lamps and are supplied with removable guides to channel parts into the middle 6" of conveyor.
** FW (Full Width) - These conveyors have lamps that span the full width of the conveyor.

UVCS LED Conveyors

Dymax LED light-curing conveyor systems offer consistent, fast, safe, and efficient LED curing of widths up to 10" in a 12" wide parts width platform. These conveyors are designed for curing LED-curable adhesives, coatings, and inks that react in the UVA and/or UVV spectral ranges.

Consistent line speed, lamp height, and intensity together provide a consistent curing process. These conveyors do not emit stray light and can be outfitted with up to four 365, 385, or 405 nm lamps positioned in either in-line or side-by-side configurations as required by the application.

- Consistent LED curing
- Complete LED shielding
- Adjustable lamp-to-belt distance
- Conveyor speeds of 1-32 feet per minute
- Integral cooling and vacuum hold-down

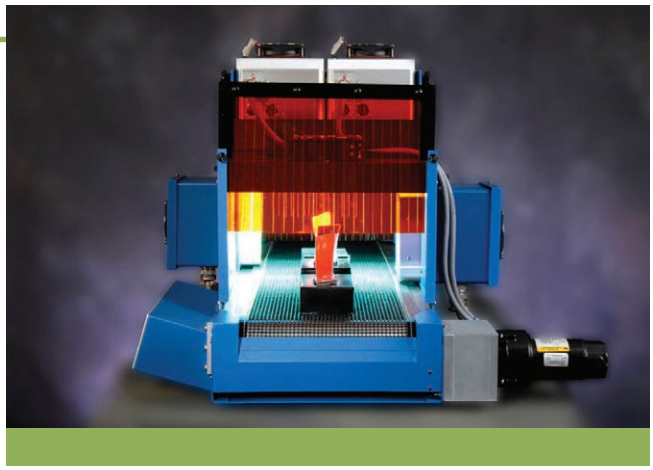
	1 LED Array		2 LED Arrays		4 LED Arrays	
North American Version (120V Standard Plug)	**41343** RediCure™ **41353** PrimeCure™ **41363** VisiCure®	**41345** RediCure™ **41355** PrimeCure™ **41365** VisiCure®	**41344** RediCure™ **41354** PrimeCure™ **41364** VisiCure®	**41346** RediCure™ **41356** PrimeCure™ **41366** VisiCure®	**41995** RediCure™ **41996** PrimeCure™ **41997** VisiCure®	**42003** RediCure™ **42004** PrimeCure™ **42005** VisiCure®
Asian Version (Type G Plug)	-	**41347** RediCure™ **41357** PrimeCure™ **41367** VisiCure®	-	**41348** RediCure™ **41358** PrimeCure™ **41368** VisiCure®	-	**42010** RediCure™ **42011** PrimeCure™ **42012** VisiCure®
Conveyor Voltage (VAC)	120V	230V	120V	230V	120V	230V
Amperage (With Lamps)	14.8A	8.4A	24.8A	14.4A	44.8A	26.4A
Belt Width	12" (30 cm)					
Belt Speed	1-32 feet per minute					
Cure Width*	5" (12.7 cm)	5" (12.7 cm) - CM 10" (25.4 cm) - FW	5" (12.7 cm)	5" (12.7 cm) - CM 10" (25.4 cm) - FW	5" (12.7 cm)	5" (12.7 cm) - CM 10" (25.4 cm) - FW
Lamp Adjustment Range	1.7" - 5.5" (4.3 cm - 14 cm)					
Max. Parts Height	4.25" (10.8 cm)					
Overall Dimensions (L x W x H) (Not Including Lamps)	50.5" x 29.8" x 16.4" (128 cm x 76 cm x 72 cm)					
Shipping Weight (With Crates & Lamps)	450 - 500 lbs. (204 - 227 kg)					
Crated Dimensions (L x W x H)	72" x 52" x 31" (183 cm x 132 cm x 79 cm)					
Retro-Fit Kits (Change an UVCS using an EC Flood Lamp to LED)	**41340**				**41990**	

* CW (Center Mounted) - These conveyors have center-mounted lamps and are supplied with removable guides to channel parts into the middle 6" of conveyor.
FW (Full Width) - These conveyors have lamps that span the full width of the conveyor.

UVCS SideCure Conveyor

The UVCS SideCure conveyor system is designed for the UV curing of adhesives and coatings from the sides and/or top. The SideCure conveyor can be outfitted with up to eight 5000-EC UV curing flood lamps that offer complete shielding from UV light and consistent exposure times. The conveyor's 12" wide belt and 5" high side-curing capability makes the SideCure a very versatile UV curing solution. The SideCure conveyor is ideal for masking, medical, and electronic applications where 180° UV curing is required.

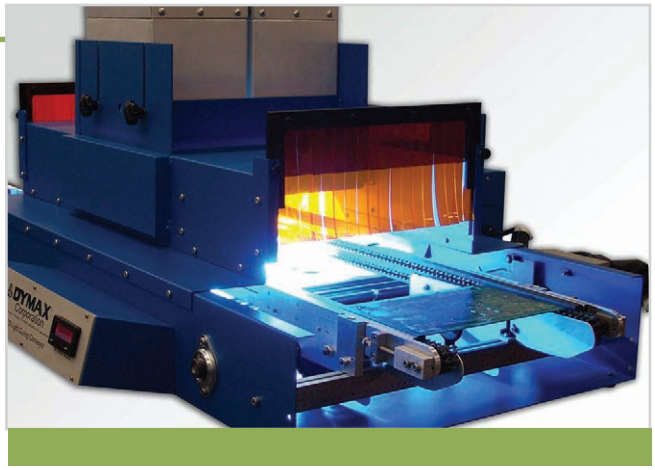
- Left, right, and top curing capability
- Adjustable top lamp height and side lamp position
- Accurate digital belt control and readout
- Controlled and consistent cure times
- Accepts parts up to 36" x 12" x 7" (L x W x H)



	UVCS SideCure with TWO Side Lamps (lamps sold separately)		UVCS SideCure with FOUR Side Lamps (lamps sold separately)	
Lamps (SideCure 5000-ECs PN 39798)	Up to six (sold separately)		Up to eight	
Part Number	**39767**	**39766**	**39939**	**39941**
Conveyor Voltage	115V	220/230V	115V	220/230V
Amperage (With Lamps)	1.6A	0.9A	1.6A	0.9A
Belt Width	12" (30 cm)			
Belt Speed	1-27.5 feet per minute			
Cure Width	6" (15 cm) or 12" (30 cm) depending upon number and orientation of lamps			
Lamp Adjustment Range	Top Lamps: From 6.25" to 9" off the belt (16 cm to 23 cm) Side Lamps: From 3.5" to 6" off center (9 cm to 15 cm)			
Max. Parts Height	7" (17.8 cm)			
Overall Dimensions (L x W x H) (Not Including Lamps)	51" x 30" x 21.5" (130 cm x 76 cm x 55 cm)			
Shipping Weight (With Crates & Lamps)	450-500 lbs. (204-227 kg)			
Crated Dimensions (L x W x H)	72" x 52" x 31" (183 cm x 132 cm x 79 cm)			

Edge-Carry Conveyor

Dymax Edge-Carry conveyors are designed for efficient curing of UV and/or visible light-sensitive adhesives, inks, and coatings. These conveyors can be outfitted with a variety of lamp configurations to address a variety of application specific requirements. They offer complete shielding from UV light and consistent cure times. Configuration options allow flexibility when defining intensity requirements to keep operating costs to a minimum. Standard height clearance is 0.75" across the entire 18" width, which is ideal for low profile parts such as PCBs, and up to 6 inches across a 13.75" width, which can be increased to either 8" or 12" with optional risers installed.



- Multiple flood or focused-beam configurations available
- Chain rail width is easily adjusted to accommodate parts widths up to 12"
- Adjustable lamp-to-part distance

	5000-EC Lamps								2000/1200-EC Lamps		Fusion F300 Lamps	
	One Lamp (CM)*		Two Lamps (CM)*		Two Lamps (FW)**		Four Lamps (FW)**		One Lamp (CM)*		One Lamp (CM)*	Two Lamps (FW)*
Part Number	**40324**	**40328**	**40325**	**40329**	**40326**	**40275**	**40327**	**40331**	**40334 40335**	**40332 40333**	**40336**	**40280**
Conveyor Voltage	120V	230V	120V	230V	120V	230V	120V	230V	115 or 208-240V		208-240V	
Amperage (With Lamps)	9.6A	4.8A	17.6A	8.8A	17.6A	8.8A	33.6A	16.8A	TBD	TBD	16A	32.6A
Max. Chain Spacing	18" (45.7 cm)											
Conveyor Speed	1-32 feet per minute											
Cure Width	6" (15 cm)				12" (30 cm)				9" (23 cm)		6" (15 cm)	12" (30 cm)
Lamp Adjustment Range	3.5" - 7.3" (8.9 cm - 18.5 cm)											
Max. Parts Height	6.25" (15.86 cm)											
Overall Dimensions (L x W x H) (Not Including Lamps)	59" x 35" x 39.5" (150 cm x 89 cm x 100 cm)											
Shipping Weight (With Crates & Lamps)	390 lbs. (177 kg)		410 lbs. (186 kg)				450 lbs. (204 kg)		390 lbs. (177 kg)		475 lbs. (215 kg)	580 lbs. (263 kg)
Crated Dimensions (L x W x H)	TBD											

* CW (Center Mounted) - These conveyors have center-mounted lamps and are supplied with removable guides to channel parts into the middle 6" of conveyor.
** FW (Full Width) - These conveyors have lamps that span the full width of the conveyor.

WideCure™ Conveyor

18" and 25" WideCure™ UV light-curing conveyors offer fast, consistent UV curing of large parts. Dymax WideCure™ conveyors run 4-50 feet per minute and can be outfitted with either a longwave bulb (for most Dymax materials) or a shortwave bulb (for inks). Complete light containment for no stray UV light, durable construction, tightly controlled line speed, and 5" to 12" adjustable lamp heights make these conveyors very production friendly.

- Curing widths of 18" or 25" with line speeds from 1-50 fpm
- Easily adjustable lamp-to-belt distance (5"-24")
- Integral vacuum hold-down and cooling system

	18" (45.7 cm) WIDECURE™	25" (63.5 cm) WIDECURE™
Part Number	**39380**	**39381**
Conveyor Voltage	110V	110V
Amperage (With Lamps)	15A	15A
Belt Width	25-7/8" (65.7 cm)	32-7/8" (83.5 cm)
Belt Speed	Adjustable 4 - 50 feet per minute	
Cure Width	18" (45.7 cm)	25" (63.5 cm)
Lamp Adjustment Range	5" to 24" (12.7 cm to 61 cm)	
Max. Parts Height	24" (60.96 cm)	
Overall Dimensions (L x W x H) (Not including Lamps)	126" x 38" x 71" (320 cm x 97 cm x 180 cm)	126" x 45" x 71" (320 cm x 114 cm x 180 cm)
Shipping Weight (With Crates, Without Lamps)	700 - 900 lbs. (318 - 408 kg)	
Crated Dimensions (L x W x H)	168" x 54" x 80" (427 cm x 137 cm x 203 cm)	168" x 61" x 80" (427 cm x 155 cm x 203 cm)

Accessories

Carts

39215 – Transportation Cart
Easily move your conveyor with one of these durable, rolling carts.

Conveyor Bulbs

UVCS, SideCure, & Edge-Carry Conveyors

38560 - Metal-Halide Bulb (Standard, UVA, Longwave)
For use with UVCS, SideCure, & Edge-Carry conveyors outfitted with Dymax EC-series flood lamps.

36970 - Mercury Bulb (UVB, Shortwave)
For use with UVCS, SideCure, & Edge-Carry conveyors outfitted with Dymax EC-series flood lamps. These bulbs are primarily designed for curing UV inks and cationic epoxies.

36658 - Visible Bulb
For use with UVCS, SideCure, & Edge-Carry conveyors outfitted with Dymax EC-series flood lamps. The bulbs are primarily designed for curing UV/visible curing adhesives through UV-blocked, but transparent substrates.

36399 - "D" Bulb (Standard)
For use with UVCS, SideCure, & Edge-Carry conveyors outfitted with Fusion lamps.

36441 - "H" Bulb
For use with UVCS, SideCure, & Edge-Carry conveyors outfitted with Fusion lamps. These bulbs are primarily designed for curing UV inks and cationic epoxies.

38146 - "V" Bulb
For use with UVCS, SideCure, & Edge-Carry conveyors outfitted with Fusion lamps. The bulbs are primarily designed for curing UV/visible curing adhesives through UV-blocked, but transparent substrates.

WIDECURE™ Conveyors

36376 - Metal-Halide Bulb for 18" WIDECURE™ Conveyor
39613 - Mercury Bulb for 18" WIDECURE™ Conveyor
36373 - Metal-Halide Bulb for 25" WIDECURE™ Conveyor
39614 - Mercury Bulb for 25" WIDECURE™ Conveyor

RADIOMETERS FOR SPOT, FLOOD, AND CONVEYOR SYSTEMS

Radiometers measure the intensity of energy at specific wavelengths. UV light is, by definition, not visible to the human eye, so a radiometer is required to determine the amount of UV energy. The ability to measure light intensity is useful for three reasons:

- **Maintaining a light-curing process –** A radiometer can measure whether a light-curing system is providing intensity above the "bulb change" intensity. A radiometer is to a light-curing process what a thermometer is to a heat-curing process.
- **Providing a worker-friendly light-curing process –** A radiometer is required to determine if any UV light is reaching operators or bystanders.
- **Measuring transmission rates through substrates –** A radiometer can be used to measure the transmission rates of various wavelengths through substrates that absorb UV and/or visible light. To assure an effective curing process it is critical to measure the light intensity reaching the light-curable material below the intervening substrate.

Dymax ACCU-CAL™ Radiometers

Dymax offers ACCU-CAL™ radiometers for spots, floods, and conveyors. Kits for spot lamps include the complete radiometer with 3, 5, and 8-mm lightguide adapters and a lightguide simulator. Adapter kits are available separately for users who have an existing flood/conveyor kit and need to use it for spot systems. All radiometer kits include a storage/carrying case. ACCU-CAL™ radiometers are calibrated to measure either UV-A (320-390 nm), LED (~ 350-450 nm), or visible (395 nm to 465 nm) light intensity.

Radiometer Calibration

To ensure accurate readings, radiometers should be periodically calibrated. Calibration requirements differ from one model to another but calibration is typically required every six or twelve months. Please refer the Dymax Radiometer Calibration Schedule, available for download on our website, for the calibration requirements for your specific radiometer model. Calibration services are available through Dymax and can be scheduled by submitting the Calibration Request Form found on the dymax website or by contacting your local Dymax Customer Support Team.

ACCU-CAL™ 50

The ACCU-CAL™ 50 radiometer is simple to operate and offers repeatable measurement of UV light. The ACCU-CAL™ 50 can measure UV light emitted from lightguides (3 mm, 5 mm, and 8 mm), UV flood systems, and UV conveyors. With a spectral sensitivity from 320 to 395 nm (UVA), the ACCU-CAL™ 50 measures intensities from 1 mW/cm^2 to 40 W/cm^2. A specially designed photo-sensor assembly protects the photo-sensor from the high temperatures sometimes associated with today's high intensity UV spot lamps.

- Spectral sensitivity of 320-395 nm
- 12 month calibration cycle
- Can be used to test spot or flood lamps, as well as conveyor systems
- Set screw locks lightguide in place
- PTB and NIST traceable

Part Numbers

39561 - ACCU-CAL™ 50 for flood lamps and conveyors
Complete radiometer (without lightguide adapters or lightguide simulator*); includes storage/carrying case

39560 - ACCU-CAL™ 50 for spot and flood lamps and conveyors
Complete radiometer with lightguide adapters (3 mm, 5 mm, and 8 mm) and lightguide simulator*; includes storage/carrying case

*A lightguide simulator is used to measure direct spot lamp intensity (required to calculate lightguide transmission)

ACCU-CAL™ 50V

The ACCU-CAL™ 50V radiometer is simple to operate and offers repeatable measurement of visible light. The ACCU-CAL™ 50V can measure visible light energy emitted from lightguides (3 mm, 5 mm, and 8 mm), flood systems, and conveyors. With a spectral sensitivity from 400 to 470 nm (blue portion of the visible spectrum), the ACCU-CAL™ 50V measures intensities from 1 mW/cm^2 to 40 W/cm^2. A specially designed photo sensor assembly protects the photo sensor from the high temperatures sometimes associated with today's high-intensity spot lamps.

- Spectral sensitivity of 400-470 nm (visible)
- 12 month calibration cycle
- Can be used to test spot or flood lamps, as well as conveyor systems
- Set screw locks lightguide in place
- PTB and NIST traceable

Part Numbers

40044 - ACCU-CAL™ 50V for flood lamps and conveyors
Complete radiometer (without lightguide adapters or lightguide simulator*); includes storage/carrying case

40043 - ACCU-CAL™ 50V for spot and flood lamps and conveyors
Complete radiometer with lightguide adapters (3 mm, 5 mm, and 8 mm) and lightguide simulator*; includes storage/carrying case

*A lightguide simulator is used to measure direct spot lamp intensity (required to calculate lightguide transmission)

ACCU-CAL™ 50-LED

The ACCU-CAL™ 50-LED radiometer is simple to operate and offers accurate measurement of curing energy. The ACCU-CAL™ 50-LED can measure energy levels emitted from lightguides (3 mm, 5 mm, and 8 mm), BlueWave® QX4™ LED heads, and LED flood lamps. A spectral sensitivity range of 350 - 450 nm and intensity measurement from 1 mW/cm^2 to 40 W/cm^2, makes this unit ideal for measuring LED curing source energy levels. A specially designed photo-sensor assembly provides repeatable measurements and protection from high temperatures associated with some LED systems on the market.

- Spectral sensitivity of 360-450 nm
- 12 month calibration cycle
- Can be used to test spot or flood lamps, as well as conveyor systems
- Set screw locks lightguide in place
- PTB and NIST traceable

Part Numbers

40505 - ACCU-CAL™ 50-LED for LED spot and flood units
Complete radiometer with 3 mm, 5 mm, and 8 mm lightguide adapters, lightguide simulator*, and an optical adapter for use with the BlueWave® QX4™; includes storage/carrying case.

40519 - ACCU-CAL™ 50-LED for LED floods and conveyors
Complete radiometer (without lightguide adapters or lightguide simulator*); includes storage/carrying case.

39554 - Flood-to-Spot Adapter Kit
Kit includes three lightguide adapters (3, 5, and 8 mm) and a lightguide simulator.

42218 - BlueWave® QX4™ Optic Adapter Upgrade Kit
Kit includes the optic adapter and updated software and calibration for an existing radiometer. The customer's radiometer must be returned to Dymax for programming and calibration.

*A lightguide simulator is used to measure direct spot lamp intensity (required to calculate lightguide transmission)

ACCU-CAL™ 160

The ACCU-CAL™ 160 radiometer is available in both a UV and LED model and can measure UV or LED light up to 10 W/cm^2 emitted from stationary light-curing flood lamps or lamps used in conveyorized processes. This radiometer can be used to determine intensity (measured in mW/cm^2) or total energy as derived from intensity and exposure time (measured in mJ/cm^2). The ACCU-CAL™ 160 offers a number of improved features and benefits including a longer calibration cycle (12 months instead of 6), an easier-to-use set-up screen, and a graphical display that is clearer and easier-to-read. The unit is simple to operate and can be controlled via four buttons on the faceplate. Measurement results are displayed on the integrated LCD display or transmitted by the USB interface to a computer. A data download kit is included with each radiometer at no charge and downloads easily into Microsoft Excel.

- LED or UVA models available
- Spectral sensitivity of 315-400 nm (UVA model) or 355-455 nm (LED model)
- 12 month calibration cycle
- +/- 0.5 accuracy
- Clear, easy-to-read graphical display
- For use with flood lamp or conveyor systems

Part Numbers

41590 - ACCU-CAL™ 160 UVA
41585 - ACCU-CAL™ 160 LED

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