

Dymax BlueWave® MX-150™ LED UV Spot Curing Lamp, High-Intensity Curing System



Description

The Dymax **BlueWave MX-150** LED UV spot curing lamp system provides manufacturers with the curing flexibility they need, in a smaller, more efficient design. The unit comprises 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, providing consistent curing by avoiding potential intensity loss caused by the use of long or bent lightguides.

With this new design, this LED UV spot curing lamp 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 lightguide can be connected to the system for specialised applications.

Heat Control

For applications with heat-sensitive components, interruptions in the exposure duration can slow the materials' temperature climb during the cure process. This isn't a concern with the BlueWave MX-150, because the curing profile can be optimized to reduce the risk of substrate damage.

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Admin and Production Modes

The admin mode fully unlocks the device and allows for setting curing time and intensity cycles. Each individual curing cycle can be entered and saved as a program and recalled when needed. The production mode is designed for simple operation by manufacturing personnel. Settings and access to admin mode can be password protected using the full QWERTY keyboard.

Features & Benefits

Features	Benefits
High Intensity of up to 40 W/cm ²	· Quickly cures a variety of materials
LED heads available in 365nm (RediCure), 385nm (PrimeCure), or 405nm (VisiCure) wavelengths	· Compatible with a variety of UV and visible light-curable materials · Wavelength flexibility allows co-optimisation of adhesive and curing system for best cure

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Features	Benefits
LED chip located in the emitter, not the controller	<ul style="list-style-type: none"> · Consistent intensity · Mounted emitter saves the cost of lightguides · Eliminates potential intensity loss from long or bent lightguides · Easily mounted to robotic arms with no intensity variation · Emitter can be mounted closer to application, while the controller remains close to the operator
Admin and Production Modes	<ul style="list-style-type: none"> · Production Mode for simple on/off operation · Curing programs can be saved and easily recalled · Units can be password protected so only the production Mode can be accessed by workers
Touch screen with full keyboard	<ul style="list-style-type: none"> · Improved user interface · Curing programs can be easily entered, stored, and recalled when needed
Compatible with 3- and 5-mm lightguides with Wolf Connector	<ul style="list-style-type: none"> · Utilises standard/readily available lightguides

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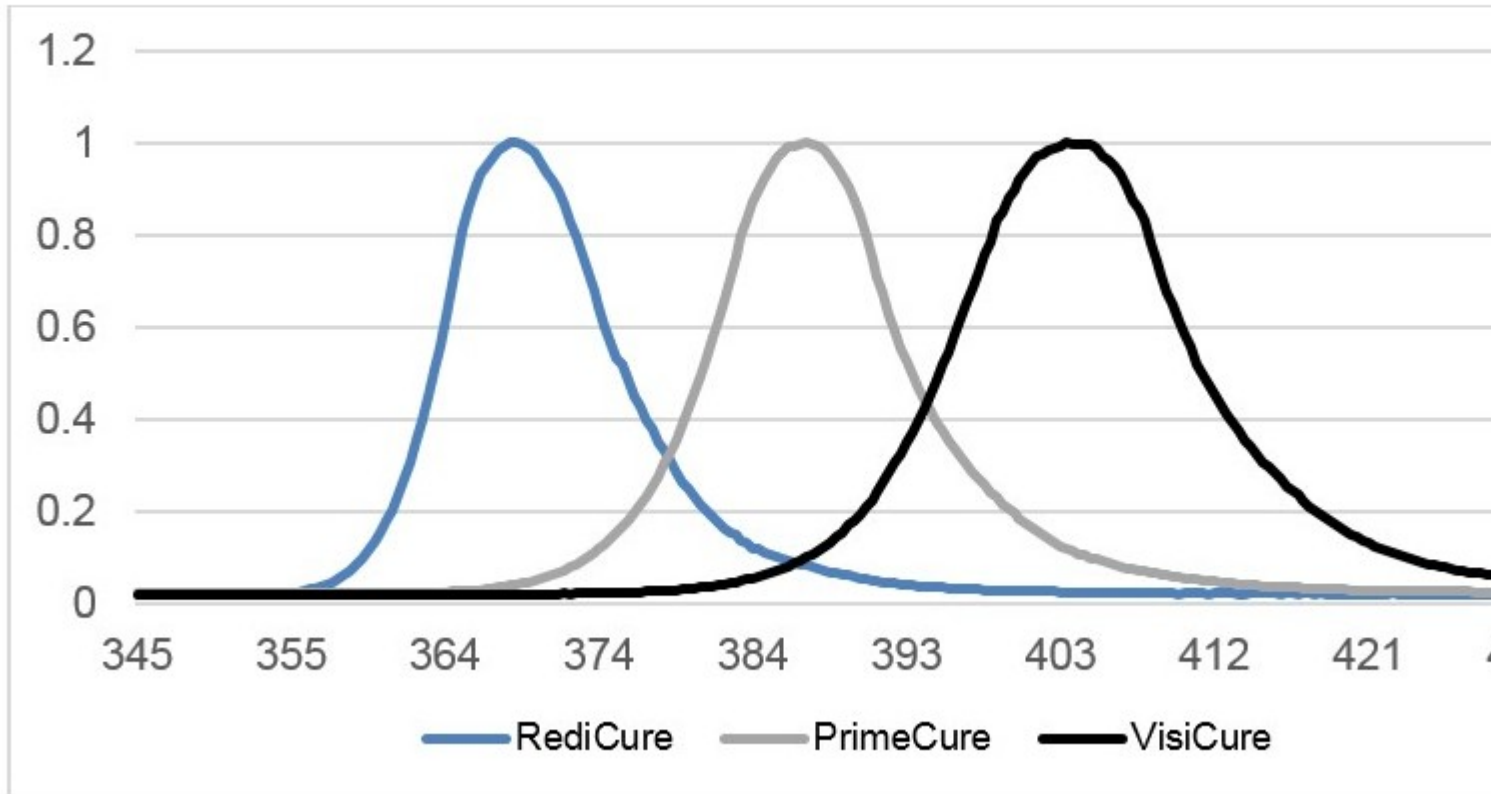
Features	Benefits
Instant on-off	<ul style="list-style-type: none">· No warm-up period· More energy efficient
Efficient LED temperature management and system monitoring	<ul style="list-style-type: none">· Maximised continuous operation without overheating· Comfortable hand-held operating temperature· Temperature monitoring assures maximum LED life· Checks presence of lightguide or other delivery optic
PLC interface	<ul style="list-style-type: none">· Easily incorporated into automated systems

Specifications

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Figure 1. BlueWave® MX-150™ Spectral Output Chart



Dymax BlueWave MX 150 LED UV spot curing lamp spectral output chart

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MX-150 Emitter	RediCure™	PrimeCure™	VisiCure®
Output Frequency	365nm	385nm	405nm
Intensity Output*	24 W/cm ²	38 W/cm ²	36 W/cm ²
Power Supply Input	100-240V 2.5A, 50-60Hz		
LED Timer	0 to 999 seconds		
LED Activation	Foot pedal, LCD touch screen, or PLC		
Cooling	Air Cooled		
Dimensions (H x W X D)	Controller: 14.6 cm x 9.5 cm x 15.9 cm Emitter: 20.06 cm x 5 cm x 5 cm		
Weight	Controller: 1.18 kg Emitter: 0.64 kg		
Unit Warranty	1 year from purchase date		
Operating Environment	10-40°C		

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*Measured using a Dymax ACCU-CAL 50-LED Radiometer at a distance of 0 mm

The Bluewave MX-150 can be configured with a 4-pole lightguide instead of the standard transmitter. All listed lightguides come with D-Style Connectors and require the DYM42932 Lightguide Conversion Kit.

Part Number	Description	Details
DYM42932	Bluewave® MX-150 4-Pole Lightguide Conversion Kit	Upgrade performed at Dymax. Bluewave® MX-150 emitter must be returned to Dymax for upgrade.

Compatible Lightguides

When outfitted with a 4-pole lightguide, the Bluewave® MX-150 can offer the following intensities.

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Part Number	Description	Intensity W/cm ²
DYM38478	4 x 1000 mm Liquid	11.0
DYM38851	4 x 1500 mm Liquid	11.0
DYM38676	4 x 1500 mm Liquid. Extended Range	11.0
DYM39791	4 x 1000 mm Fiber Optic	8.0

Optional Multi-Channel Controller

The Dymax BlueWave® MX-Series Multi-Channel Controller, when combined with up to four MX-Series LED UV curing emitters, provides manufacturers with curing flexibility in a smaller, more efficient design with an easy to use touchscreen interface.

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The Multi-Channel Controller is compatible with all of the BlueWave MX-Series emitters. The emitters are available in three cure pattern formats: Spot (MX-150), Mini-Flood (MX-250) and Line (MX-275), and different wavelengths including 365, 385, or 405 nm. Emitters of different cure patterns and/or wavelengths can be mixed and matched with a single Multi-Channel Controller. This flexibility helps to achieve optimal cures across a variety of bond-line geometries and fluid product offerings.



Users also have greater set up flexibility; for automated curing processes, the emitter can be mounted to robotic arms or further from the controller without fear of intensity variations. When used as a benchtop curing system, the unit can be paired with a stand and shielding for large area curing. It can also be used with multiple pathway lightguides for specialised applications when paired with MX spot emitters.

MX-Series Multi-Channel Controllers are available in two model variants: a two-channel that is capable

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of independently controlling up to two emitters and a four channel for up to four emitters.

Multi-Channel Controller Features and Benefits

- Reduces equipment footprint and cost by reducing the number of controllers required
- Compatible with all MX-Series LED UV curing emitters; users can easily switch between spot, flood and line curing configurations
- All Bluewave® MX-series emitters available in 365, 385 and 405nm versions
- Simple on/off operation with no warm-up period
- Application specific curing profiles/programs can be easily entered, stored, and recalled when needed
- Units can be password protected so only production mode can be accessed by workers
- LED temperature management and system monitoring for maximised continuous operation without overheating
- Easily incorporated into automated systems with remote I/O interface

Ordering Information

A complete BlueWave MX-150 system features a controller/power supply and LED emitter. Emitters are available in 365, 385, and 405 nm wavelengths. Lightguides and other accessories noted below can be added for specific applications. Components are sold separately.

Units are warrantied against defects in material and workmanship for one year from date of purchase.

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Part Number	Description
Emitters	
DYM42336	Dymax BlueWave MX-150 RediCure® LED Spot Emitter* (365 nm)
DYM42337	Dymax BlueWave MX-150 PrimeCure® LED Spot Emitter* (385 nm)
DYM42338	Dymax BlueWave MX-150 VisiCure® LED Spot Emitter* (405 nm)
DYM36987	Lightguide Simulator, 5-mm Diameter
DYM41148	Adjustable Taper Shoulder Focusing Lens (5 mm)
*5mm lightguide simulator comes with every emitter.	
Controllers	
DYM42380	MX Series Controller, Power Supply and Power Cord

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Part Number	Description
DYM43184	MX-Series Multichannel Controller for 2 Emitters – interconnect cables to connect controller to emitters and foot pedals sold separately
DYM43181	MX-Series Multichannel Controller for 4 Emitters – interconnect cables to connect controller to emitters and foot pedals sold separately
<i>Interconnect Cables</i>	
DYM42287	2-Meter Interconnect Cable Assembly
DYM42889	5-Meter Interconnect Cable Assembly
<i>Foot Pedal</i>	
DYM43106	Foot Pedal
Accessories	
DYM42390	Mounting Stand for Emitter
DYM41268	BlueWave® LED Mounting Stand with Acrylic Back Shield

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Part Number	Description
DYM41395	Three-Sided Acrylic Light Shield – 22 cm W x 22 cm D x 21 cm H. Works with DYM42390 and DYM41268 Mounting Stands. UV blocking.
DYM42426	Emitter Holder Assembly Bracket
DYM43070	MX Emitter Stand – Includes LED Stand DYM 41268 and DYM 43019 Kit for up to 4 Emitters
DYM43019	MX Emitter Stand Kit – Attaches to Stand DYM 41268 and Holds up to 4 Emitters
DYM35285	Protective Goggles – UV blocking, grey tint, fit over prescription spectacles

Supplied by:

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