# Dymax BlueWave® MX-275 High Intensity LED UV Curing System

## Description

The Dymax BlueWave® MX-275 LED UV flood curing system provides a high intensity, 5mm x 50mm line pattern output. An MX-275 LED UV curing system comprises two main parts: a controller with an easy-to-use touchscreen interface and a uniquely designed, high-intensity LED emitter, offering better uniformity and more consistent curing-energy emissions than traditional UV curing systems. Curing energy is created using a micro-processor-controlled LED chip set in the emitter.

The system's optional multi-channel controller can be paired with multiple emitters, allowing them to be grouped together to create larger curing pattern matrices as needed.

With this new design, the LED UV flood curing system can be truly tailored to your curing needs – allowing you to choose from three different wavelength LED emitters (365, 385, or 405 nm) and providing additional flexibility with the size and pattern of the active curing area. This system can be set up as a bench-top unit, or for automated curing processes, the emitter can be easily mounted to robotic arms or further from the controller without fear of intensity losses.

### Admin and Production Modes

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

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- High intensity for quick curing of a variety of materials
- Very high uniformity across entire cure area for consistent dosage, minimising variation in bond line cure characteristics
- Ability to cure small batches of parts under cure area simultaneously and to group emitters together for large curing patterns
- Available in 365, 385, or 405 nm wavelengths for optimal cure results
- Production Mode for simple on/off operation
- Curing programs can be saved and easily recalled
- Units can be password protected so only Production Mode can be accessed by workers
- Touch screen with full keyboard
- Instant on-off means no warm-up period and greater energy efficiency
- Comfortable hand-held operating temperature
- Temperature monitoring assures maximum LED life
- LED chip located in the emitter, rather than the controller, provides consistent intensity and eliminates potential intensity loss from long or bent lightguides
- Easily incorporated into automated systems with PLC interface
- Emitter can be mounted closer to application, while the controller remains close to the operator

## Specifications

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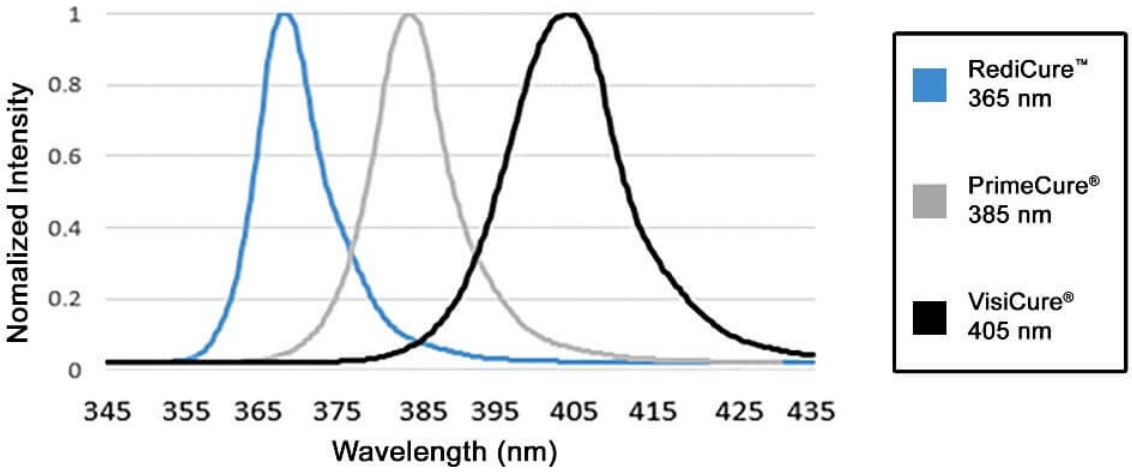


Dymax BlueWave® MX-Series LED UV flood curing lamp spectral output chart

| Dymax BlueWave® MX-275 | RediCure™ | PrimeCure™ | VisiCure™ |
|---|---|---|---|
| Output Frequency | 365 nm | 385 nm | 405 nm |

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| | | | | |
|---|---|---|---|---|
| Intensity Output* At 10mm Working Distance: Intensity Output* At 25 mm Working Distance: | 1 | 460 mW/cm2 960 mW/cm2 | 1,870 mW/cm2 1,220 mW/cm2 | 1,750 mW/cm2 1,100 mW/cm2 |
| Emitter Cure Area | 5 mm x 50 mm | | | |
| Dimensions (H x W X D) | 20.06 cm x 5 cm x 5 cm | | | |
| Weight | 0.74kg | | | |
| *Measured using a Dymax ACCU-CAL 50-LED Radiometer. | | | | |
| | | | | |
| **Dymax BlueWave® MX-Series Controllers** | | | | |
| Power Supply Input | 100-240 VAC 2.5A, 50-60 Hz | | | |
| LED Timer | 0 to 999 seconds | | | |
| Timer Resolution | 0.1 seconds | | | |

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| | |
|---|---|
| LED Activation | Foot pedal, LCD touch screen, or PLC |
| Cooling | Air Cooled |
| Dimensions (H x W X D) | Standard Controller: 14.6 cm x 9.5 cm x 15.9 cm<br>Multi-Channel Controller: 18.7 cm x 13.1 cm x 16.9 cm |
| Weight | Controller: 1.18 kg |
| Operating Environment | 10-40°C |

## 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.

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.

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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 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

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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-Series system comprises a controller/power supply and at least one LED emitter. Emitters are available in 365, 385, and 405 nm wavelengths. 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.

| Part Number | Description |
| --- | --- |
| **Emitters** | |

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| Part Number | Description |
|---|---|
| DYM43094 | Dymax BlueWave MX-275 RediCure LED Flood Emitter (365 nm) |
| DYM43098 | Dymax BlueWave MX-275 PrimeCure LED Flood Emitter (385 nm) |
| DYM43102 | Dymax BlueWave MX-275 VisiCure LED Flood Emitter (405 nm) |
| **Controllers** | |
| DYM42380 | MX Series Controller/Power Supply – includes 2 m interconnect cable for connection to Emitter |
| 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 |
| *Interconnect Cables* | |
| DYM42287 | 2-Meter Interconnect Cable Assembly |

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| Part Number | Description |
|---|---|
| DYM42889 | 5-Meter Interconnect Cable Assembly |
| *Foot Pedal* | |
| DYM43106 | Foot Pedal |
| **Accessories** | |
| DYM42390 | Mounting Stand for Emitter |
| DYM41268 | BlueWave® LED Mounting Stand with Acrylic Back Shield |
| 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 |

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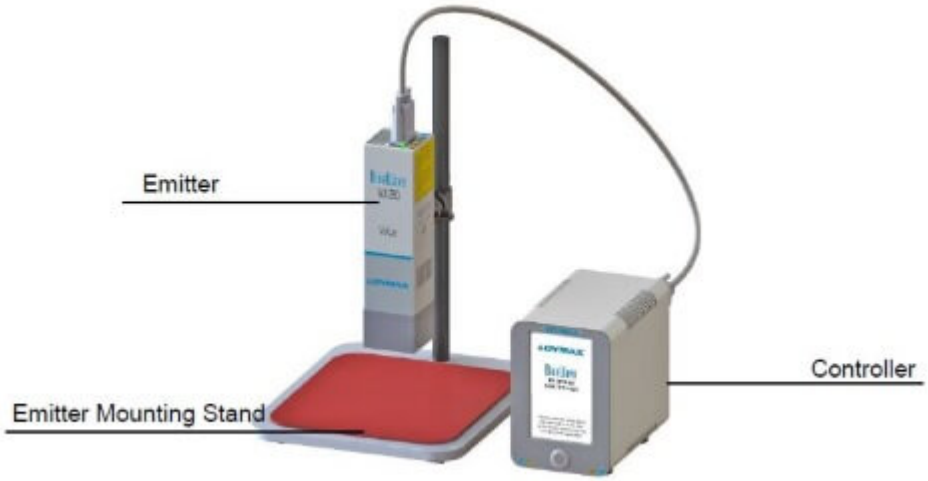
| Part Number | Description |
| --- | --- |
| DYM35285 | Protective Goggles – UV blocking, grey tint, fit over prescription spectacles |

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