

BlueWave[®] LED DX-1000

Flexible LED UV Light-Curing System

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's advanced LED light-curing technology in a flexible system design that can adapt to meet changing business and application needs.



BlueWave LED DX-1000 Spot Lamp Package

Package includes controller, irradiator head, 5-mm lightguide, lightguide stand, lightguide adapter, footswitch, interface cable, lightguide mounting stand, and bench-top base



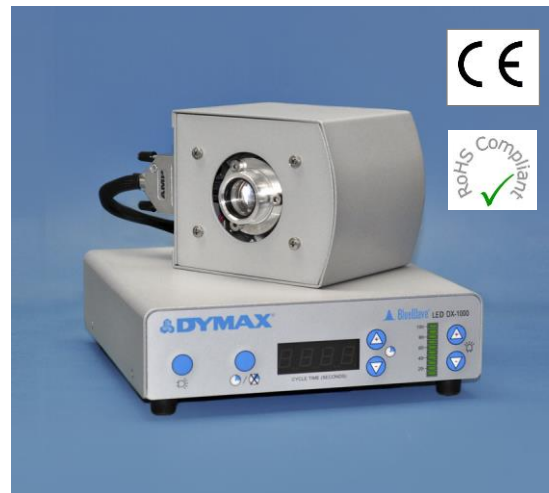
BlueWave LED DX-1000 Flood Lamp Package

Package includes controller, irradiator head, collimating optic #1, bench-top stand with silicone pad, magnetic shielding, footswitch, and interface cable



BlueWave LED DX-1000 Lab Developer Package
Includes All Parts Necessary for Both Spot and Flood Modes

Includes controller, irradiator head, 2 interface cables, lightguide adapter, collimating optic #1, bench-top stand with silicone pad, bench-top base, 5-mm lightguide, footswitch, and magnetic shielding



BlueWave LED DX-1000 Base System for Custom Mounting and System Integration (Mount Supplied by Customer)

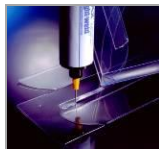
Package includes irradiator head with collimating optic #1, controller, footswitch, and magnetic shielding



FEATURES	BENEFITS
Single or multi-pole lightguide and dual-lens optical accessory	<ul style="list-style-type: none"> Flexible, configurable light delivery options High-intensity spot cure Small-area [1"x1.5" (2.5 cm x 3.8 cm)] cure capability to ~3" (7.6 cm) distance
High-intensity LED with efficient cooling	<ul style="list-style-type: none"> Consistent LED frequency and intensity output for better process control Longer life than mercury-arc lamps and other LED curing systems Lower consumables and on-hand "spare" inventory costs (light source & lightguides)
LED with 385 nm narrow-spectrum output	<ul style="list-style-type: none"> Cooler cure environment for thermally sensitive substrates Replaces hazardous mercury-arc lamp with environmentally friendly LED
Lower energy consumption than conventional UV lamps (<100 Watts)	<ul style="list-style-type: none"> Reduced electrical consumption by up to 80%
Instant On/Off with 100% duty-cycle capability	<ul style="list-style-type: none"> Highest throughput (exposure cycles "at the speed of light") Significantly reduced maintenance downtime as compared to conventional lamp replacement
Shutter-free design	<ul style="list-style-type: none"> Reliable operation with lower maintenance costs (no moving parts)
Adjustable intensity (0 - 100% in 1% steps)	<ul style="list-style-type: none"> Superior accuracy (versus "closed loop feedback") for optimum process control
Co-optimized to cure a variety of Dymax LED adhesive formulations	<ul style="list-style-type: none"> Compatible with a variety of Dymax light-curable formulations (see table below)
Self-contained, lightweight irradiator head with cable interface	<ul style="list-style-type: none"> Flexibility to mount the irradiator head remotely from controller for automated process equipment integration, or to free up valuable workstation surface space (up to 10 ft [3 M] from controller to irradiator)

Adhesives Compatible with the BlueWave® LED DX-1000

With the combination of expertise in LED light-curing equipment technology design and adhesive formulation development, there is an ever-growing list of formulations optimized to cure with the *BlueWave LED DX-1000* at lightning speeds for a multitude of applications in any industry segment.



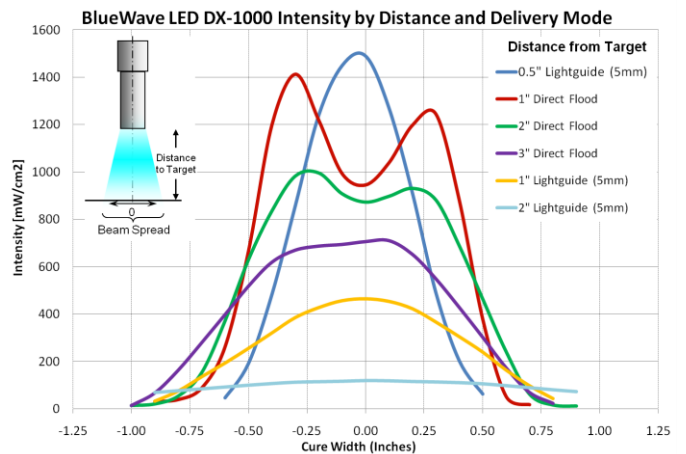
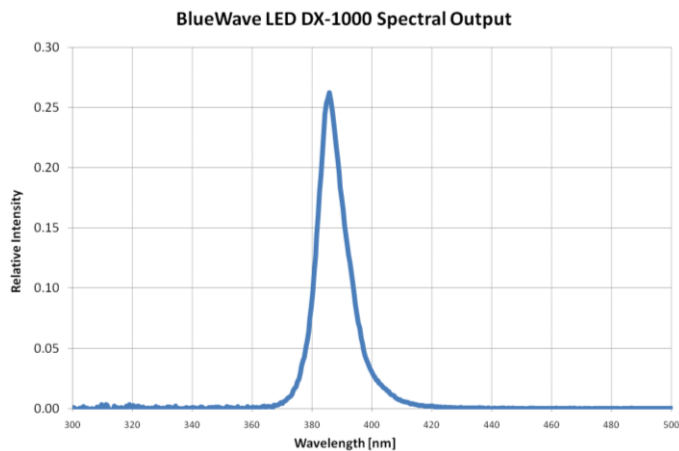
Dymax Product	Interfacial Cure Time, Glass to Glass*	Dymax Product	Interfacial Cure Time, Glass to Glass*
Electronics Adhesives and Coatings		SPEEDMASK® Masking Resins	
9001-E-V3.0	1.0 sec	726-SC	0.2 sec
9001-E-V3.5	≤2.0 sec	Structural Bonding Adhesives	
9-20557	3.0 sec	6-621	≤1.0 sec
9-20557-LV	≤4.0 sec	6-625-SV01-REV-A	≤3.0 sec
9422-SC	0.2 sec	MD® Medical Device Adhesives	
9422-T-SC	0.2 sec	210-CTH	0.2 sec
9481-E	4.0 sec	211-CTH	0.2 sec
984-LVUF	0.2 sec	1120-M-UR	0.2 sec
9-911-REV-A	1.0 sec	1128-A-M	≤3.0 sec
Glass Bonding Adhesives		1161-M	0.2 sec
429	≤5.0 sec	1163-M	0.2 sec
Plastic Bonding Adhesives		1165-M	0.2 sec
3030	0.2 sec	1168-M	0.2 sec
3031	0.2 sec	1180-M	0.2 sec
3069-GEL	0.2 sec	1187-M	0.2 sec
3094	0.2 sec	1201-M-SC	0.2 sec
3130-UR	0.2 sec		
3227-UR	0.2 sec		

* Interfacial cure time is based on glass-to-glass bonding with the *BlueWave LED DX-1000* (flood or spot mode) or the *BlueWave LED Prime UVA*; minimum intensity of 675 mW/cm².

System Specifications

SPECIFICATIONS					
Part Number	Package	Flood Mode	Spot Mode	Lab Developer	Base System
	No Power Cord*	40750	40980	41000	40560
	Asian Version (Type G Power Cord)	40580	40590	41010	-
	North American Version (120V Power Cord)	40760	40990	41020	-
Output (measured by ACCU-CAL™ 50-LED)	1.0 [W/cm ²] at 1.0" in direct emission (flood mode) 15.0 [W/cm ²] at 0.5" with 5 mm x 1 M liquid lightguide (spot mode)				
Power Requirements	100-240V, 47-63 Hz (auto ranging); 100 Watts maximum				
LED Timer	0.1 to 999.9 seconds				
LED Activation	Foot switch, front panel, or PLC				
Cooling	Forced air / fan (controller and irradiator head)				
Hour Meter	Digital LCD; total unit lifetime (non-resettable) and total LED exposure time				
Controller Dimensions / Weight	6.5" x 9.0" x 2.25" [16.5 cm x 22.9 cm x 5.7 cm] (W x D x H) / 2.4 lbs [1.1 kg]				
Irradiator Head Dimensions / Weight	4.0" x 5.0" x 4.5" [10.2 cm x 12.7 cm x 11.4 cm] (W x D x H) / 2.9 lbs [1.3 kg]				
Interface Cable Length	Choice of 18" [45 cm], 3 ft [0.91 M], 6 ft [1.82 M], or 10 ft [3.04 M] lengths				
Unit Warranty	Operation warranted for 3 years from purchase				
Recommended Accessories	40519 ACCU-CAL™ 50-LED Radiometer				

* Contains the appropriate power cord for Europe.



Accessories



Bench-Top Stand with Silicone Pad **PN 40725**



Benchtop Base and Lightguide Adapter Kit **PN 40755**



2 Lens Collimating Optic #1 **PN 40581**



Lightguide Adapter **PN 40743**

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LISTEN. ENVISION. DELIVER.

In addition to our light-curing equipment, Dymax also offers high-performance adhesives designed to rapidly bond glass, metal, and plastic substrates upon exposure to UV/Visible light and a variety of dispensing equipment. Our products are perfectly matched to work seamlessly with each other, providing design engineers with tools to dramatically improve manufacturing efficiency and reduce costs. Dymax is committed to providing the best chemistry, curing equipment, and dispensing systems that offer customers complete manufacturing solutions for their challenging applications.



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Please note that most dispensing and curing system applications are unique. Dymax does not warrant the fitness of the product for the intended application. Any warranty applicable to the product, its application and use is strictly limited to that contained in Dymax's standard Conditions of Sale. Dymax recommends that any intended application be evaluated and tested by the user to insure that desired performance criteria are satisfied. Dymax is willing to assist users in their performance testing and evaluation. Data sheets are available for valve controllers or pressure pots upon request.

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