

technology





- Eco Friendly
- Cold UV No Heat
- Power Efficient Technology
- High Intensity Rugged Performance
- Print on Wide Substrate range

Cutting Edge Technology

LED UV Lamp-Head

This is one of the most critical components of the system and Alpna uses cutting edge technology to achieve one of the most advanced designs with advantages like precise UV focus, High output ratings, Compact size and easy maintenance.

- Wavelength 385nm, 395nm and 405nm
- Curing Length available from 205mm to 1500mm
- Power Intensity 100 watts / cm
- Easy mounting and dismounting with use of quick connections for water and electrical lines
- Printing Speeds up to 200 meter/minute
- · Easy to maintain
- Very low heat especially suitable for thermal sensitive substrates
- Pure UV emission for thermally deep complete curing
- Power saving compared to mercury UV



Highly durable, LED



water cooled



Extermely compact and robust design



Energy Saving



Advanced optics for Deep Curing



Hot Swappable

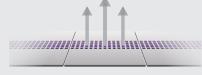


Intelligent Power Pack

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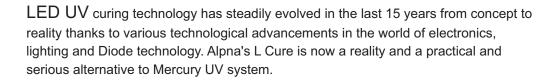


Replacable LED

Technical Specifications

LED UV Technology

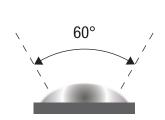
- AIGaN/InGaN LED chip technology
- Advanced High power COB based modular diodes
- Ultra-high brightness and efficiency
- Excellent thermal stability aided by to liquid cooling
- 365 385 395 405 nm pure monochrome wavelengths
- Extended durability with lasting high performance
- · Zero ozone emissions.



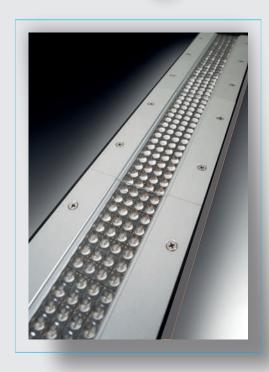
Alpna has adopted latest Chip on board technology in its current systems. COB offers modular construction as these can be stacked together linearly to achieve various lengths and configurations.

The COB's itself are state of art technology. The Diodes are sourced from best suppliers from around the world and made into COB's with on-board AC to DC conversion and temperature monitoring for safety. Each COB consists of 24 LEDs in rows of 3 each and is equipped with a 60 deg focal lens and includes 3 chips with a unit power of 1480mW @1500 mA. Therefore, each LED emits 16.45 W on a surface of 0.49 cm2 the maximum power is therefore 25 W/cm2 for complete curing of UV-based inks, varnishes, resins and adhesives in high-productivity industrial processes.

The continuous technological progress in LED production, through the use of modular COB (Chip On Board) cards, makes it possible to achieve a highly selective and powerful emission of monochromatic UV irradiation







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Technical Specifications

Alpna uses a revolutionary technology to power the LED cassettes's- AC power instead of DC which helps overcoming major constraints and also provides useful features for more productivity and value adition.

- On the fly The LED Power Packs are available in the COMBO version, which can control both conventional lamps and innovative UV LED with system control power supply system.
- AC power instead of DC with variable voltage control offeres many advantages.
- The software on board constantly monitors all the functions of the LED, as well as providing a complete diagnostic of the LED or the connected lamp. The alarm system instantly alerts and monitors for any errors or malfunctions.
- As the size of the lamp increases, cables with a large cross-section, which is a significant element in the design of installations, will become indispensable for the power supply.
- It is not possible to control the distribution of currents in the individual clusters of LEDs unless several power supplies are used at the same time.





Why to use Alpna LED UV



Cooler Temperatures

LED Systems operate at lower temperatures than conventional board-spectrum lamps. Because some substantial are sensitive to higher temperature, curing LCMs fully without damaging the substrate can require multiple passes under a broad spectrum lamp at lower intensity levels. Those extra steps can be eliminated by switching to cooler LED curing systems.



Longer Life

Another benefits of LED curing sources is that they last longer. Although LEDs also degrade in intensity output over time, but in comparison to mercury lamps it may offer 20 times longer life span.



More Uniform Curing

LEDs provide a more uniform distribution of light across the substrate for consistently fast curing.



Energy Efficient and Environment Friendly

LEDs systems are much more electrically efficient and more environment friendly than mercury arc lamps. The LEDs run at lower wattage and require no warmup period and cut down electricity cost. They are also no listed as an electrical hazard the way that conventional mercury - arc lamps are.



Instant ON / OFF

LEDs power up instantly and do not require any warm-up time. This allows production to start immediately and increase productivity.









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