

Vyns

UV CURING



UV curing is a photopolymerization process that uses ultraviolet (UV) light to quickly cure or harden coatings, adhesives, inks, and resins, delivering high precision and durability in industrial applications. Medium Infrared (MIR) systems provide gentle, uniform heat through infrared radiation for preheating and drying coatings, inks, adhesives, and heat-sensitive materials before or during UV curing.



UV LAMPS

Mercury (Hg) lamp

Metal Halide(Fe) lamp

Metal Halide (Ga) lamp

Super High Pressure Shot Arc UV Lamp

Super High Pressure Capillary & GL UV Lamp

Exposure (LMX,LGX) Matel lamp

Standard UV lamp

Wavelength: 365 nm

Purpose: general-purpose UV curing

Example: Coatings, inks, adhesives & PCB manufacturing

Iron-doped UV lamp

Wavelength: 365–405 nm

Purpose: Deep curing, high penetration

Examples: Thick photoresists, multilayer coatings

Gallium-doped UV lamp

Wavelength: Peak at ~420 nm

Purpose: Curing of pigmented/thick materials

Examples: Colored coatings, high-viscosity adhesives

Short-arc quartz UV lamp

Purpose: Flash exposure & spot curing

Examples: Instant UV curing, high-intensity processes

Compact capillary UV lamp

Purpose: Ultra-precise, high irradiance applications

Examples: Microelectronics, medical device manufacturing

Exposure-specific metal halide lamps

Purpose: High-resolution patterning, photoresist exposure

Examples: PCB exposure, printing plate imaging

Provides high-performance UV lamps engineered for industrial curing and exposure, delivering consistent irradiance, long life, and stable spectral output.



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UV SYSTEM

Nitrogen Purge UV System

Function: Inert curing environment
Benefit: Prevents oxygen inhibition, enhances curing efficiency



Cabinet Type Solar Cell UV System

Purpose: Precision UV curing for solar cell production
Design: Enclosed chamber with uniform irradiation



PCB Printing / Coating UV System

Purpose: Precise UV curing for solder mask, legend printing, conformal coating
Industry: PCB manufacturing



LCD / Display Printing UV System

Purpose: UV curing for display and touch panel manufacturing
Application: TFT-LCD, OLED panel processes



Camera Module / LCD Bonding UV System

Purpose: Optical bonding and module curing
Precision: High-accuracy alignment & uniform UV output



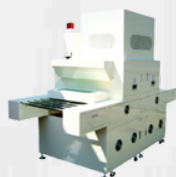
Ultra-Cold UV System

Feature: Low-temperature UV curing
Application: Heat-sensitive materials



Both-Side PCB Hardener

Function: Simultaneous top and bottom UV curing
Application: Double-sided PCBs



Ultra-Miniature & Lab-Type UV System

Purpose: Research, testing, or ultra-small scale production
Feature: Compact, desktop form factor



U-Turn UV System

Design: Curved conveyor path with built-in UV curing
Application: Space-constrained or loop-type processing



Roll-to-Roll UV System

Application: Continuous web printing and coating
Material Support: Film, PET, PC, PMMA



Roll Coater + Curing System

Function: Integrated coating and UV curing
Application: Films, flexible electronics



Film / PMMA / PC / PET Printing & Coating

Materials: Plastic films & substrates
Application: Displays, overlay films, protective coatings



Wafer Tape Remover with UV

Function: UV-assisted debonding system
Application: Semiconductor & wafer processing



Roll Surface Treatment UV System

Purpose: Surface modification, adhesion improvement
Material: Film rolls, foils



REGI & Various Resin Printing / Coating

Resin Types: Epoxy, acrylate, hybrid resins
Application: Functional coatings & encapsulation



3D-Radiation Type UV System

Design: Omnidirectional UV exposure
Purpose: Complex 3D part curing



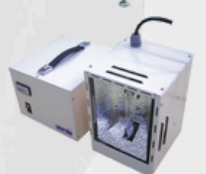
Miniature UV Curing System

Feature: Space-saving, portable
Use Case: On-site repairs, micro-production



Hand-Held UV Curing System

Design: Portable, ergonomic
Use: Field maintenance, localized curing



BLU & LCD Film UV Curing

Purpose: UV curing for backlight units and LCD functional films
Application: Polarizers, diffusers, optical layers



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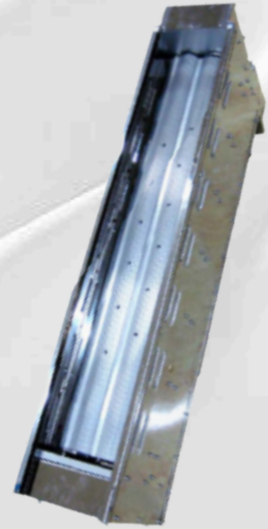
UV MODULE

Applications

- Optical films (prism, reflector, diffusion sheets)
- Graphic printing (offset, gravure, screen, OPV)
- PDP surface and general UV curing processes

Features

- Compact design, easy to install
- Available lamp power: 1–40 kW
- No need for deep knowledge of printing/coating machines
- Reduce cost by using only needed modules
- Supports connection with various systems
- Shutter system protects substrate from heat
- Ideal for roll-to-roll systems
- Slide-in lamp housing for quick replacement



UV LED

SPOT UV LED



LS4 UV Spot
Curing Device

Key Benefits

- Instant ON – No warm-up needed
- Low Heat – Protects sensitive materials
- Eco-Friendly – No mercury, no ozone
- Compact & Easy to Install
- Energy-saving & Cost-effective
- Long LED lifespan

Technical Highlights

- Wavelength: 365 nm
(Others optional: 385/395/405 nm)
- Curing Spot Sizes: 3–12 mm
- Cooling: Natural (fan optional)
- Power Use: 20 W max, 300 mW idle
- Power Input: AC220V or DC48V
- Size & Weight: 164×110×35 mm, 0.38 kg
- Safe Working Temp: 5°C to 35°C

BAR TYPE UV LED



InnoCure L35 –
Compact UV LED
Curing System

Low Heat Output

- Reduces risk of heat damage to products.
- Instant On (no warm-up time needed).

Compact & Easy to Install

- Saves space and fits easily into existing production lines.

Eco-Friendly

- Mercury-free, no ozone emission.

Long LED Lifespan

- Durable and low maintenance.

No Bubbling or Yellowing

- Maintains product clarity and quality.

Flexible Integration

- Customizable for different setups.

MIR SYSTEM

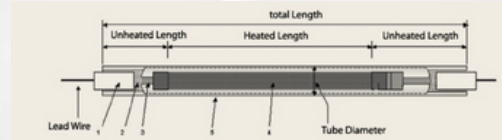
Medium Infrared Module

MIR Lamps

- Medium Infrared (MIR) lamps provide gentle, even heat
- Suitable for preheating or drying temperature-sensitive materials

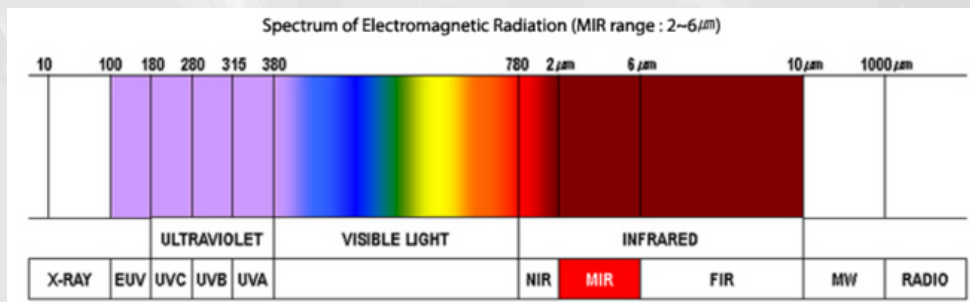
MIR Dry System

- Non-contact drying using infrared radiation
- Maintains uniform temperature distribution
- Compact and efficient for limited-space setups



MIR Applications

- Drying of ink, coating, adhesives
- Preheating materials before UV curing
- Ideal for films, PCBs, and electronics that require controlled heating



MIR MODULE

Applications

- Drying of coatings, inks, and adhesives
- Preheating of electronic components and film materials
- Assist heating before UV curing
- Gentle drying of heat-sensitive materials

Features

- Modular Design: Easy installation and customizable in length and power
- Non-Contact Heating: Prevents damage to material surfaces
- Uniform Heating: Medium infrared provides stable and deep heat penetration
- Energy Efficient: Fast heating reduces drying time
- Multiple Interface Support: Easy integration with existing systems
- Easy Maintenance: Simple lamp replacement and stable system operation

SPOT UV

INNO-CURE 2000

INNO-CURE 5000



Application

- Precise spot UV curing for small or targeted areas
- Used in electronics, optics, medical devices, and micro-assembly
- Ideal for UV adhesives, encapsulation, and spot coating

Features

High-Intensity UV Output

- Provides strong UV light for fast, reliable spot curing.

Precision Targeting

- Focused light allows curing only where needed, minimizing heat spread.

Adjustable Output Power

- INNO-CURE 2000: Standard performance
- INNO-CURE 5000: High-power version for demanding applications

Modular Design

- Easy integration with automation systems or manual operation.

Low Heat Impact

- Protects heat-sensitive components and materials.

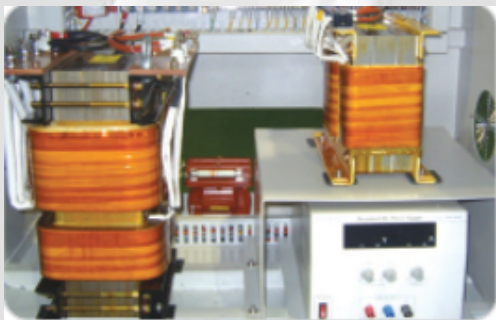
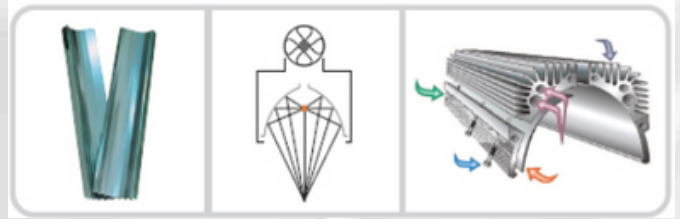
Long Lamp Life

- Stable performance and long operating hours.



UV REFLECTORS

- Elliptical focus type
- Paralled type
- Diffuse type

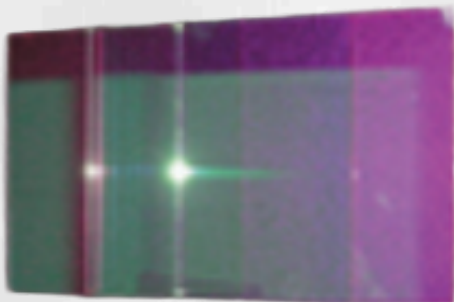
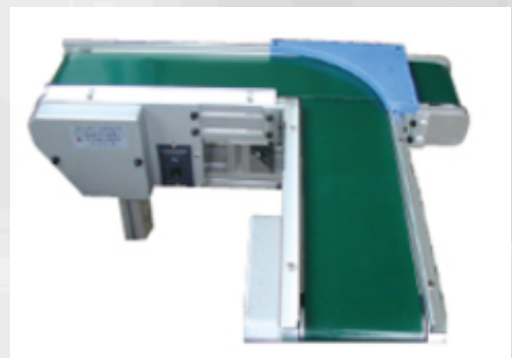


POWER SUPPLIES

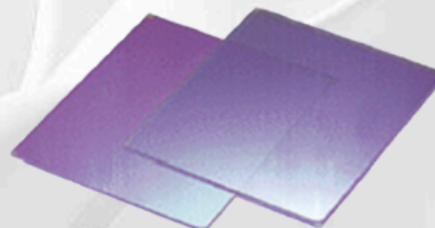
- Electronic ballast
- UV Transformer (Condenser type)
- UV Transformer (Choke type)
- Hybrid UV Transformer

CONVEYORS

- Standard conveyor (C-TYPE)
- Center drive conveyor (CC-TYPE)
- Knife edge conveyor (CKN-TYPE)
- Working table conveyor (CTA-TYPE)
- Crossed conveyor (CX-TYPE)



UV FILTERS



**To find out more, please visit our website: www.vyns.tech & contact our distributor

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