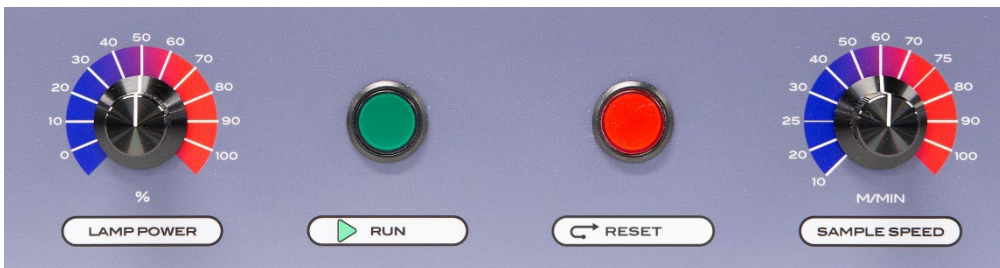


# UV LED LABORATORY UNIT for Precision Ink Development



## Description

GEW's LED lab systems make the task of developing and testing new UV LED ink formulations easy, accurate and ergonomic. It incorporates the same high performance LED curing modules as used in GEW's AeroLED and LeoLED models, so testing with this unit reflects genuine production scenarios.

A sample tray, driven by a linear actuator, is passed under the UV array in a very precise, controlled and repeatable manner. UV output and sample tray speed can be separately adjusted by set increments as required. In addition to having a simple magnetic hinged sample tray, the unit can also accommodate an EIT radiometer for precise UV power measurement. The LED array is height adjustable between 5mm and 25mm to suit specific test items and scenarios.



<b>Technical Details</b>				
Sample tray speed	100m/min maximum			
Standard wavelength	395nm (30W/cm <sup>2</sup> )			
Available wavelengths	365nm *	385nm	395nm	405nm
Curing power	18W/cm <sup>2</sup> *	30W/cm <sup>2</sup>	30W/cm <sup>2</sup>	30W/cm <sup>2</sup>
Height adjustment	5mm to 25mm			
LED array width	15cm			
Controls	On / off. Sample tray speed, 10 to 100m/min in 10m/min increments, 25 and 75m/min. UV output power, 10% to 100% in 10% increments.			
Sample tray	Sample window 230(w) x 120(d), in mm. Travel 1200mm.			
Array cooling method	Self-dissipation. Integral cooling fan, no external fan or chiller required.			
Dimensions	1510(w) x 590(d) x 290(h), in mm.			
Power requirement	Single phase, neutral and earth.			
<b>Options</b>				
All options are priced on request.	Holders for EIT UVICURE® PLUS II and UV POWER PUCK® II radiometers. Additional lamp heads at different wavelength. Inert gas sample chamber.			
<b>Costs</b>				
Price upon request.				

\* Power setting must not exceed 70% when using a 365nm cassette.

# CONVEYOR LABORATORY UNIT

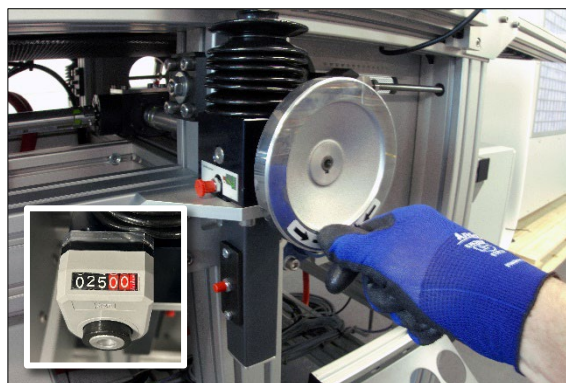
GEW's Conveyor Laboratory Unit can be specified with any combination of GEW's production UV curing systems (arc, LED or Excimer) and customisation options such as nitrogen inerting, height adjustment, and quartz window options. A high precision motor allows samples and measurement devices to pass under the UV unit(s) at variable speed up to 100m/min. The height adjustment function allows the unit to accurately mimic almost any press configuration.

Multiple lamps can be arranged in series and with RHINO ArcLED control; LED and arc lamp curing can then be rapidly interchanged as required. Appropriate cooling systems are specified according to customer requirements and the floor standing units can be set on wheels or permanently located.

Whatever your laboratory requirements, GEW can custom design a solution to accurately reflect the production environment you serve.



The control panel enables individual switching for each lamphead, as standard.



Bed height is manually adjustable in increments of 0.01mm.

**Key features:**

- Fully customisable Conveyor Laboratory Unit
- Can be equipped with any combination of GEW UV, Excimer or LED lamps
- Long infeed to ensure samples reach belt speed prior to first lamp
- All safety interlocks, emergency stops
- Perfect for R&D or light production
- Option for nitrogen inertion, height adjustment and almost any other option GEW manufacture
- Manual height adjustment with customisable lamphead height up to 150mm (inerting significantly reduces height adjustment).

Compatibility		E2C, E4C, NUVA2, AeroLED, LeoLED and ExciRay.
Arc/array length		38cm as standard.*
Interface plate		125, 250 and 500mm (specification dependent).
Speed		Up to 100m/min.
Inert nitrogen atmosphere		Optional (required for ExciRay). Supplied at 8 bar at 20°C. Oxygen-free (purity 0.99999). Nitrogen supply required.
Cooling	Water	All (water-cooled roller & water-cooled bed).
	Air	E2C, E4C, NUVA2 and AeroLED.
	Nitrogen	ExciRay only.
Power supply unit	Type	GEW RLT or RHINO.
	Supply	380 Vac – 480 Vac 50/60 Hz 3P + N + E.
Additional services		Compressed air supply, minimum 6 bar.
Overall dimensions LxWxH		3312 x 1015 x 1429mm. Height includes ExciRay lamphead.
Working area required LxWxH		4000 x 2000 x 2000mm, approx.

\*Other widths may be available upon request

**Further Specifications:**

Speed range		4-100m/min – digital readout, continuously variable.
Conveyor belt width		400mm.
Lamphead width		380mm.
Effective curing width		330mm (ExciRay 300mm).
Maximum substrate thickness		35mm.
1625mm space for lampheads		Modular sections of 125mm, 250mm & 500mm; customers can use up to 1625mm in any combination of below:
125mm		Nitrogen inlet.
		Blank.
250mm		1x lamphead of any type.
		Blank.
500mm		2x lampheads of any type/combination.
		Blank.
Overall bed height adjustment		Up to 35mm: from 5mm to 40mm, measured from belt to underside of plate(s). Can be increased to 150mm when using interchangeable booster plates.
Optional nitrogen inerting		Adjustable down to below 50ppm.
Power supplies and cooling		Additional external components (e.g. fan, chiller and cabinet) also require space.

# UV LAMP LABORATORY UNIT

## Description

The GEW UV Lamp Laboratory Unit is a robust, well-specified, stand-alone bench top UV curing unit for laboratory or low volume production environments. CAD designed, the unit is manufactured to the highest construction standards using extruded aluminium sections and a stainless steel mesh belt. With constant UV lamp power, the curing dosage is simply controlled by varying the belt speed. An effective air-cooling system keeps the whole unit cool even after many hours of continuous operation at full speed. All parts are guaranteed for 12 months.



## General Data

Curing width	150mm
Belt width	150mm
Belt material	Stainless steel mesh
Belt speed range	5 - 70 m/min
Lamp type / output	Ozone-free, 80 W/cm
Sample dimensions	150 (w) x 25 (h) x 190 (l) mm with standard feeder/catcher trays
Electrical supply	200-240 V, 50/60 Hz, 1 phase, 13 amp

## Controls

Electrical supply	ON / OFF
Lamp control	ON / OFF
Belt speed control	Infinitely variable within range*

## Physical Data

Dimensions	1090 (w) x 410 (h) x 540 (d) mm
Weight	40 kg
Finish	Anodised aluminium
Exhaust ducting	Not required (ozone-free lamp fitted)

## Options

Cassettes	Spare cassette. Alternative configurations
Sample trays	Out-feed and in-feed
Sample carriers	Simple plate & clip types available
Inert gas	Nitrogen atmosphere capsule available

\*Belt speed is approximate. Manual tachometer is included, to enable precise measurement.