Transform the economics of UV with the most effective UV LED curing technology
Charlie Anderson
Managing Director, C & D Print Media, England

Using GEW LED UV on a Heidelberg SM74 press

"Instant drying means that we can follow on with any finishing process immediately after printing. It’s one of those things… you wonder how you ever got along without it."

Chris Manley
President, Graphco, Ohio, USA

Representing RMGT in the USA

"GEW has been the ultimate technology partner for Graphco and our customers. An RMGT press powered by LeoLED UV is the gold standard."

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1. **Most efficient curing**
   - Large window gives maximum light extraction.
   - Longer dwell time gives highest dose.

2. **Ultimate reliability**
   - Tough IP67 design protects LEDs at all times.
   - Waterproof seals make for easy cleaning.

3. **Fits anywhere**
   - 40 x 100mm profile can fit on any machine.
   - GEW’s familiar cassette design is provided as standard.

4. **Water-cooled**
   - Silent operation improves factory ambience.
   - No air movement or dirty filters for sensitive processes.

5. **Thermal management**
   - Extensive investment and years of research and development have resulted in unrivalled thermal management. This is the secret behind LeoLED’s game-changing performance.

6. **Condensation protection**
   - Innovative warm water cooling system prevents condensation, even in the hottest and most humid environments.

7. **Temperature control**
   - Embedded temperature sensors constantly monitor the LEDs to ensure safe, long term operation and reliability.

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### Specification

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max electrical power</td>
<td>88 W / cm</td>
</tr>
<tr>
<td>Wavelength</td>
<td>395 nm**</td>
</tr>
<tr>
<td>Irradiance at window</td>
<td>30 W / cm²*</td>
</tr>
<tr>
<td>Typical dose @ 100 m / min</td>
<td>270 mJ / cm²*</td>
</tr>
<tr>
<td>Maximum length</td>
<td>170 cm</td>
</tr>
<tr>
<td>Standard cross section</td>
<td>100mm W x 40mm H</td>
</tr>
<tr>
<td>Cooling</td>
<td>Water</td>
</tr>
<tr>
<td>Standard max operating temperature</td>
<td>40°C (104°F)</td>
</tr>
<tr>
<td>Standard max humidity</td>
<td>Non-condensing</td>
</tr>
</tbody>
</table>

* Measured under standard GEW lab conditions with a standard lamphead configuration
** 365nm, 385nm & 405nm available upon request
Carl Zetterström
Printing & Postpress Manager,
TMG Stockholm, Sweden

Using GEW LED UV on a Manroland 700 HiPrint, 8-colour perfecting press

“I would say that if you have tried LED UV, you would never run a regular offset press again.”

Modular Lamp Array (MLA)

The MLA is a customisable arrangement of LED mounting positions on a printing press. Lamps can be freely moved between any position to change curing configuration and adapt to the job at hand. For highly demanding applications (such as B1 LED coating at 18,000sph) multiple lamps can be placed in tandem at the end of the press.

Why use GEW UV LED?

Turnkey solutions
GEW deliver a complete integrated UV curing solution. Along with lampheads, cooling equipment, power supply and user control systems, GEW provides custom designed mounting and shielding for a seamless integration on your press.

Faster turnaround
Instant ink drying enables immediate finishing and despatch of jobs. Sheets can be folded, cut, bound and processed right away, reducing work-in-progress and significantly shortening lead-times.

Print without limitations
UV LED inks enable printing on almost all stock types including PE, PET, PU, synthetic paper etc. and bring added value and increased product diversity with coated and uncoated papers, plastics and foil laminated sheets.

Unlike UV lamps, LEDs emit little infrared heat towards the substrate. This avoids common issues such as high pile temperatures, curling of heat-sensitive materials and loss of moisture in paper.

Ultimate productivity and peace of mind
No moving parts for low maintenance and no warm-up/cool-down mean less UV related downtime, which increases press productivity. Furthermore, GEW offers up to 3 years LED warranty, irrespective of running hours.

Reduced energy consumption
LED instant on-off means that no energy is consumed when the press is idle. The higher electrical efficiency of LEDs and the purity of UV output allow typical energy savings of over 70%, compared to H-UV or IR lamp systems.

No marking, no sealer or spray powder
UV LED inks and varnishes are 100% cured instantly after the LED lamp. Marking of sheets in the delivery or perfecting process is eliminated and machine varnish or sealer is no longer necessary. No spray powder is required, removing widespread contamination and associated cleaning and maintenance.

Sharper dots and vibrant colours
GEW’s LEDs achieve sharper dots, more vibrant colours and a higher quality finished product.

Transform your offset press
LeoLED Also available configured for web presses
**ArcLED hybrid UV technology allows interchanging of a UV Arc lamp or LED array in the same housing.**

Optimise your press with a mixture of Arc and LED curing on any station, for the ultimate flexibility.

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**RHINO power**

**Fail-safe operation**
Military-grade design protects the UV system from damage caused by incorrect voltage, short-to-ground, dropped phases, mains spikes and lightning strikes. In the event of a serious mains disruption, the system powers down in a safe mode.

RHINO is designed to run in the harshest conditions and at ambient temperatures of up to 40°C. The system is unaffected by dust, ink mist and other contaminants.

**Lowest operating costs**
With intelligent power management the current draw is balanced and harmonic distortion is minimised, reducing energy demand.

**Minimal footprint RHINO Rack**
A compact cabinet houses power supplies for up to 6 lamps and provides perfect cooling, atmospheric protection and mains power distribution.

**5-year warranty available**
Using GEW’s embedded service package gives total confidence in the reliability of GEW power electronics and minimises unplanned maintenance costs. GEW is the only UV supplier to offer this level of warranty.

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**Ultimate control**

**Embedded service**
RHINO Control is connected to the internet and encrypted system performance data is sent live to GEW 24/7. This ensures the fastest and most precise response to service issues available in the industry.

**System performance reports**
Regular reports are generated, detailing energy usage, uptime percentage and system performance.

The Event Log continually records system use and operating parameters, ensuring the system is working at peak efficiency at all times.

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**ArcLED Hybrid LED + UV**

ArcLED hybrid UV technology allows interchanging of a UV Arc lamp or LED array in the same housing.

Optimise your press with a mixture of Arc and LED curing on any station, for the ultimate flexibility.