

## **Semray® UV5000+ Series**

The “+” makes the difference for high speed printing applications

**Semray UV 5000+ the ideal light source  
for short delivery times and higher quality printing,  
resulting into less quality claims especially for online  
print shops and overnight deliveries.**

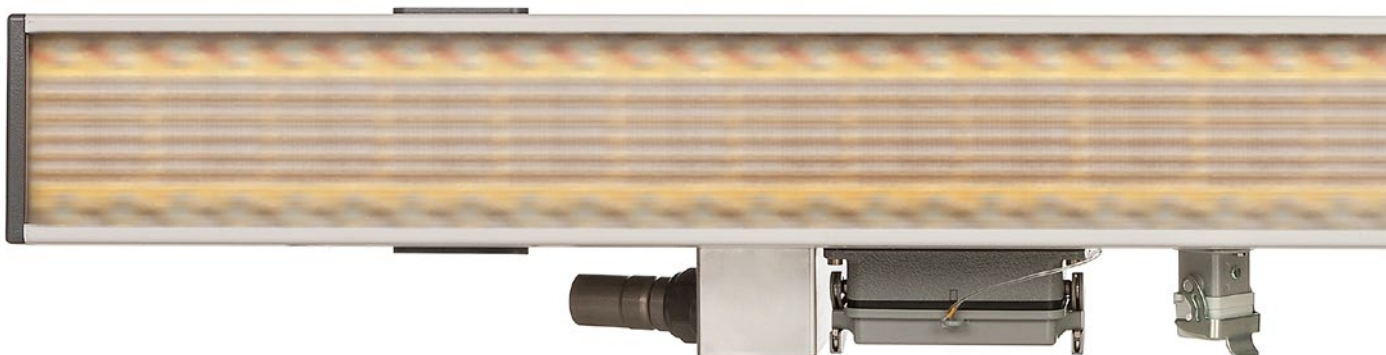
**The UV-LED of Semray® UV5000+ is paving the  
way to a perfect printing result**

With our long-term experience in the sheetfed offset market, we understand the optimal use of UV in printing and we are happy to accompany you on your journey to a perfect print.

UV-LED in printing is already a long-established technology enabling due to the use of optimized inks brighter colors and sharper shapes. The fast on-off switching of UV-LED facilitates energy savings as UV LED can be switched off between every sheet of printed material as well as energy saving due to the format selection in adaption to sheet sizes. UV-LED further empowers faster production cycles as UV-LED prints can be further processed without additional ink or coating drying steps.

**Benefits at a glance**

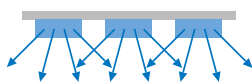
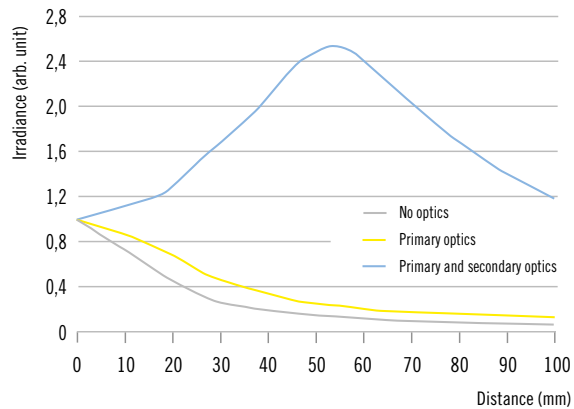
- Highest output at 60 mm distance increases the printing speed dramatically
- Ozone and VOC free technology requires no air flow section, which saves energy and space for blowers and additional pipework
- Powderless, no smear-off in the delivery pile saves costs and cleaning time
- Instant ON/OFF in milliseconds and pulsing possible, saves more than 10% of lamp energy
- Symmetrical switch off for smaller paper formats, half the paper size saves 50% energy of the lamp
- No spare parts are required which reduces maintenance costs
- Less heat transfer to heat sensitive materials such as plastics
- Stable UV LED system operation reduces maintenance expenditures
- Immediate results allow fast turn over time from printing to delivery



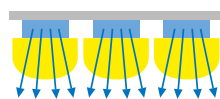
**Reduce your CO<sub>2</sub> taxes? Rethink your drying technology:  
Web printing machines drying with gas dryers can reduce their  
CO<sub>2</sub> output and save CO<sub>2</sub> taxes.**

**The Performance Plus: Special optical concept for  
high intensity even at long working distance**

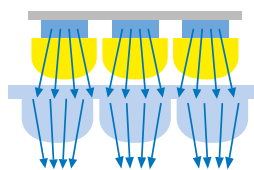
What is it that makes the new 5000+ models so special? We guide photons to the process as we believe efficiency is key! A set of unique optical concepts lead the photons leaving the UV-LED chips to higher working distances.



No additional optics



Additional primary micro lenses

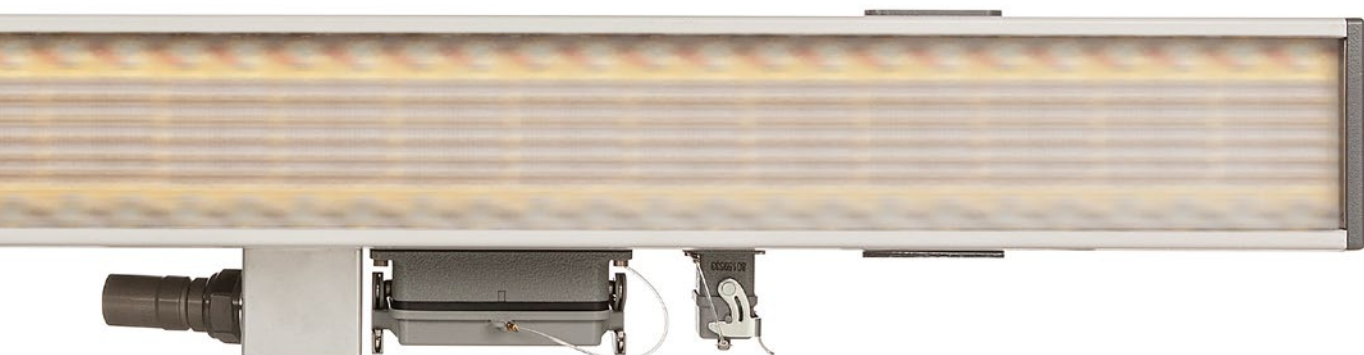


Primary micro lenses and secondary optics

- Primary micro lenses
- Secondary optics

This is a decisive factor for commercial success: It ensures optimal energy for processes at higher working distances – with a minimal loss of energy on the way. But how does it work? The Heraeus quartz glass optics offer the additional benefit: They are not only highly transmissive, but also do not show any aging effects due to UV light.

Therefore, our optics based on quartz glass offers a well-dosed and safe photons delivery, especially at longer working distances. It isn't just the number of LED chips that matter, but how much energy interacts with the substrate.



# Setting Performance Standards in Printing with Patented Optic Solutions

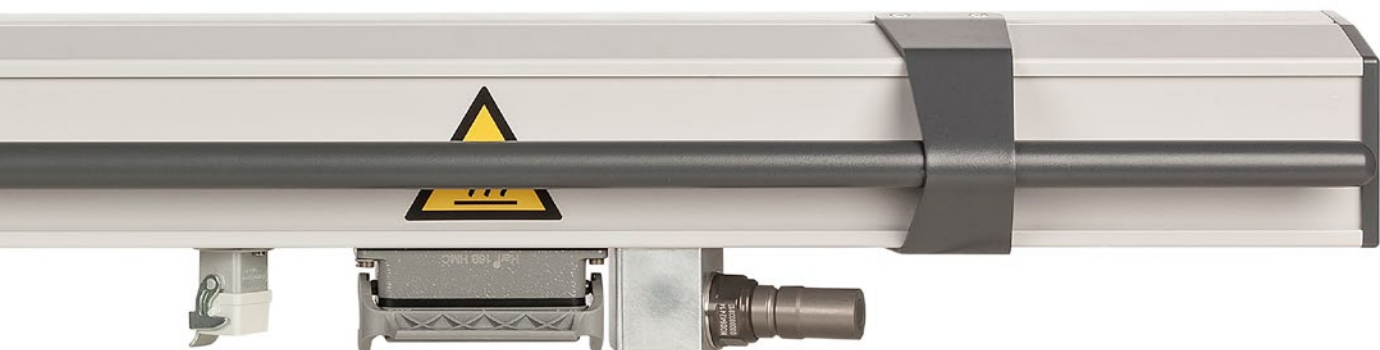
Players on the printing market are facing tremendous challenges: competition increases, and new applications are introduced in short time frames. Therefore, the development cycles of new presses with improved efficiency and more flexibility are shorter than ever before.

## A unique solution: Semray® UV5000+

The Semray® UV5000+ series rises this challenge and provides a unique solution for new and used presses. Unbeaten for industrial printing applications UV LED “+” is designed for a higher performance and a flexible integration. All components are perfectly matched to ensure a high and uniform UV output for optimum printing results – even at large working distance.



**“The UV LED curing unit delivers up to 30 percent more active UV energy to the product which results into high printing production speeds and the ability to print onto heat sensitive substrates.”**





### Reliable and efficient output – without compromise

The result is a very high, consistent, and dimmable UV output that is optimized for various applications such as sheetfed offset printing. The new cooling concept on top enhances your curing result and increases your efficiency and reliability through smart internal thermal management. The result: simply more performance!

### Lower energy consumption, shorter curing times, higher throughput, and constantly increasing product quality requirements

As a response to these set challenges a high level of production flexibility, short response times and cost-effectiveness is asked for. It is therefore all the more important for you to be able to rely on a UV system that enables you to respond to these challenges and solve them.

### Welcome to the future

Progress can be seen in many details, summarized in one name – Semray®. The Semray® UV5000+ series impresses due to its outstanding quality, even for the most demanding challenges. A decision for Semray® UV5000+ is therefore an investment in the future that pays off through cost reductions, increased performance and an added bonus of flexibility and robustness.

### As unique as your requirements – our customized UV LED solutions

The secret of evolution is adaption. Or, with another word: flexibility. Working conditions keep changing in a fast pace.

Therefore, we create standardized customization solutions that adapt to any challenge: The development of customized UV LED solutions is one of our core competencies. Together with our customers and due machine specific requirements we turn standard UV curing equipment into customized solutions, matching required conditions for fast adoption and minimized costs:

- **Be flexible with different connectors to fit into every machine environment**
- **Be flexible in lengths depending on the machine width and range of applications**
- **Be flexible in different wavelengths for various substrates**

### Stay ahead of your competition: Our retrofit concept for the sheetfed offset market turn old into gold!

With its flexible design, Semray® UV5000+ is not only predestined for the development of new printing machines, it also makes a decisive difference with its easy integration into existing printing machines – the ideal innovation boost for your production!

The compact design and the unique possibility to customize connection positions makes Semray® UV5000+ the preferred solution for nearly any printing press. Make use of the knowledge and experience we have within our team of experts, in different applications and machine equipment. Get in contact with us, when you start thinking of new ideas to stay always one step ahead of your competition:

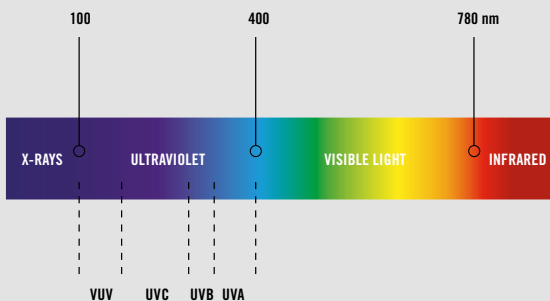
**We are happy to help you!**



# The incredible power of light®

## Photonics-based solutions from ultraviolet to infrared

Heraeus Noblelight covers the total spectrum of technically usable wavelengths and can help find the optimum light system solution to suit specific processes. Whether you wish to optimize existing applications or win new markets, we offer efficient, well thought-out and long-life solutions that give you a lasting competitive advantage.



Our unique Application Competence Centers world-wide (ACC) and the unique accredited measurement laboratory provide extensive analysis, testing and measuring – and our profound chemical formulation knowledge due to the history and experience of Heraeus ensures an optimal solution for your individual production process. 15.000 employees in 40 countries, all around the world: Heraeus is a globally active partner, with a one-of-a-kind portfolio for printing applications that features cutting-edge technology and matchless industry expertise. Our experienced experts are working continuously to develop safe, versatile, and difference-making solutions with which you are ideally equipped to meet the challenges of the future.

Heraeus Noblelight is part of the Heraeus technology group, a globally active family-owned enterprise. Within the Heraeus group, we have direct access to fundamental technologies and high-quality materials such as quartz glass, important precious metals and specialty materials. Rely on the acknowledged Heraeus quality!

**Think UV. Think Heraeus.**



**Productive light solutions with wavelengths from UV to IR improve** many industries, from analytical to automotive or semiconductors and water treatment.



**Need to make your industrial process more efficient?** The solution for your process challenges has the highest priority to us. Our light solutions operate efficiently and increase production rates.



**Tested, checked and proven.**

Our in-house application competence and development centers around the world allow you to:

- test your material under practical conditions
- optimize your industrial processes
- determine feasibility for your application

In addition, Hanau has an ISO 17025-accredited measuring laboratory that offers its know-how and takes customer-specific measurements.

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