

Press article

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Special optics set new standards in printing

Players in the print market are facing enormous challenges: Competition is getting tougher all the time, costs are rising, and new applications are coming onto the market at ever shorter intervals. For this reason, press manufacturers and print shops not only need to be able to develop new machines and bring them to market maturity within the shortest possible time, they must also be able to respond quickly to changes at short notice.

IN THE LONG RUN, EFFICIENCY IS THE KEY.

The Semray® UV5000+ series is ideally equipped to meet these challenges and offers solutions for new and used presses.

To ensure optimum LED performance, the UV LED curing system is equipped with special optical concepts.

The unique optics of the Semray® UV5000+ reliably guide the photons after they leave the UV LED chip, even over greater distances. This is a decisive factor for economic success: It enables optimal dispensing even for larger working distances - with minimal energy loss.

The quartz optics offer an additional advantage: they are not only highly light-transmitting, but also exceptionally UV light-resistant and show hardly any signs of wear. In this way, the optics made of quartz glass ensure a safe and well-dosed photon transport - especially at larger working distances. The unique system of primary micro-optics reduces stray light to a minimum - with an exit angle of 60 instead of 120 degrees. This ensures that more UV energy reaches the substrate. The result is a very high, uniform and dimmable UV output with lower energy consumption and shorter drying times, optimized for various applications such as sheetfed offset printing, for example.

CUSTOMIZED UV LED SOLUTIONS.

Working conditions are changing faster and faster. For this reason, flexible solutions that adapt to these changes are in demand. Semray® UV5000+ can be tailored precisely to the respective customer-specific requirements because it is flexible in every respect:

- With adapted optical concepts, optimally matched to the specific application
- With different connections for each machine environment
- With flexible solutions for any desired working distance

RETROFIT OPTIONS FOR THE SHEETFED OFFSET MARKET.

With its flexible design, Semray® UV5000+ is not only predestined for the development of new presses, it can also be easily and smoothly integrated into running machines. Its compact design and the unique possibilities for customizing connections and joints make Semray® UV5000+ the optimum solution for almost any press.

UV-LED CLEARS THE WAY FOR OPTIMUM PRINT RESULTS.

UV LED is a long-established technology in the printing industry, as it enables not only the processing of optimized inks, but also brighter colors and sharper contours. Depending on the materials used, additional coating steps can be avoided, simplifying and improving the process. UV LEDs also help users save energy,

as they can be switched off between each printed sheet and the energy supply can be precisely adjusted to the respective sheet size. UV LEDs also speed up production, as the sheets can be processed directly without additional drying.

More about UV LED systems from Heraeus Noblelight: heraeus-noblelight.com/semray

A globally leading technology group, **Heraeus** is headquartered in Hanau, Germany. Founded in 1851, it is a family-owned portfolio company which traces its roots back to a pharmacy opened by the family in 1660. Today, Heraeus combines businesses in the environmental, energy, electronics, health, mobility and industrial applications sectors. In the 2018 financial year, Heraeus generated revenues of €20.3 billion with approximately 15.000 employees in 40 countries. Heraeus is one of the top 10 family-owned companies in Germany and holds a leading position in its global markets. With technical expertise, a commitment to excellence, a focus on innovation and entrepreneurial leadership, we are constantly striving to improve our performance. We create high-quality solutions for our clients and strengthen their long-term competitiveness by combining unique material expertise with leadership in technology.

Heraeus Noblelight with its headquarters in Hanau and with subsidiaries in the USA, Great Britain, France and China is one of the technology- and market-leaders in the production of specialty light sources and systems. The organization develops, manufactures and markets infrared and ultraviolet emitters, systems and solutions for applications in industrial manufacture, environmental protection, medicine and cosmetics, research, development and analytical measurement techniques.

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Seite 3



Image 1:
Semray UV 5000+ the ideal light source for short delivery times and top print
quality. The PLUS for "high speed printing".
(Photo: Heraeus Noblelight GmbH)