

Press NEWS

New UV LED system Semray® revolutionizes industrial curing processes.

Hanau (Germany), May 2017

NEW UV LED SYSTEM SEMRAY® REVOLUTIONIZES INDUSTRIAL CURING PROCESSES

The new UV LED solution Semray® sets new standards in production flexibility and efficiency with its Plug & Play concept and powerful technologies.

UV specialist Heraeus Noblelight has developed an innovative UV LED solution for industrial curing processes. The new UV LED system is designed around a unique Plug & Play concept for easy handling together with cooling systems and micro-optics that boost performance for optimal curing results. By minimizing the stray light the LED chip can be used more effectively and efficiently for precise curing in a variety of applications. Up to 30 percent faster curing times and significantly higher working distances can be achieved.

“Today, it is even more important to make production processes more efficient and time saving whilst still delivering brilliant results. That is why we have developed Semray®, a functional and multifaceted system, which fulfills these requirements and is easy to handle and integrate”, explains Dr. Michael Peil, one of the “UV LED pioneers” at Heraeus who is responsible for the global sales of UV LED solutions.

Gathering energy for more flexibility

The formula is very simple: more UV LED chips built into the unit means more power. However, what sounds easy on paper is difficult to put into practice because space is limited. The challenge is to generate as much UV output as possible in the smallest possible area while, at the same time, keeping heat build-up low. Semray® features what are known as micro-optics that gather UV radiation and reduce stray light to a minimum. In this way, up to 30 percent more UV energy reaches the product, resulting in extremely high and constant UV output which optimizes the curing process, and delivers the same excellent quality even at large distances or high production speeds.

Plug & Play makes complexity simple

Conventional UV LED systems are permanently installed in production processes. For servicing or in the event of a malfunction, the entire system needs to be dismantled. This costs time and money. Semray® solves this problem with its Plug & Play technology. Its backplane concept allows the easy installation and removal of UV LED segments. The UV LED segments can be replaced without the use of tools; no data or power supply cables need to be disconnected, because each backplane has just one data and

power supply cable. This significantly minimizes downtimes, thereby saving time and money, increasing productivity, and making integration of the system into the plant considerably easier. The easy exchange of the segments and LED chips enables the user, at very low investment costs, to keep current technology standards or even change UV wavelengths.

From the most modern UV LED production facility in Europe

Semray® is developed and produced in the recently opened production facility, at the Heraeus headquarter in Hanau. It is the most modern UV LED module production facility within Europe. The production was designed based on the latest lean and quality standards, including clean-room technology with class ISO 14644-1 / ISO class 4. The professional manufacturing infrastructure and the chip-on-board (COB) line, contribute to a high production volume. Additionally the location allows best access to high-quality materials from the Heraeus technology group.

Heraeus, the technology group headquartered in Hanau, Germany, is a leading international family-owned company formed in 1851. With expertise, a focus on innovations, operational excellence and an entrepreneurial leadership, we strive to continuously improve the businesses of our customers around the world.

We create high-quality solutions for our customers and strengthen their long-term competitiveness by combining material expertise with technological know-how. Our ideas are focused on important issues such as the environment, energy, health, mobility and industrial applications. Our portfolio ranges from components to coordinated material systems which are used in a wide variety of industries, including the steel, electronics, chemical, automotive and telecommunications industries.

In the 2016 financial year, Heraeus generated revenues without precious metals of €2.0 bn and a total revenue of €21.5 bn. With approximately 12,400 employees worldwide in more than 100 subsidiaries in 38 countries, Heraeus holds a leading position in its global markets.

In 2016, the Foundation for Family Businesses named Heraeus as one of the "Top 10 Family Businesses" in Germany.

Heraeus Noblelight GmbH 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. In 2016, Heraeus Noblelight employed 707 people worldwide. 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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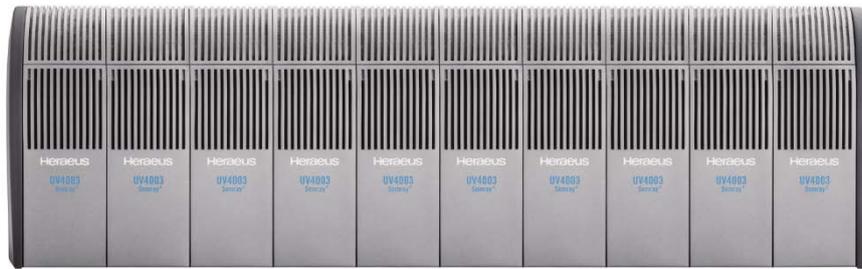
Fig. 1



Heraeus Noblelight revolutionizes the UV LED market with Semray®. The UV LED curing solution, designed for maximum performance, flexibility and reliability. The smart and robust UV LED system includes a lot of Heraeus materials and valuable technology know-how to ensure a high and uniform UV dose for optimum curing results.

(Photo: Heraeus Noblelight GmbH)

Fig. 2:



Power supply module and control unit are also part of the Semray® package. Easy integration and monitoring make the operating process more convenient and more efficient. Photo: Semray® UV4003-10; backplane with ten UV LED segments (Photo: Heraeus Noblelight GmbH)