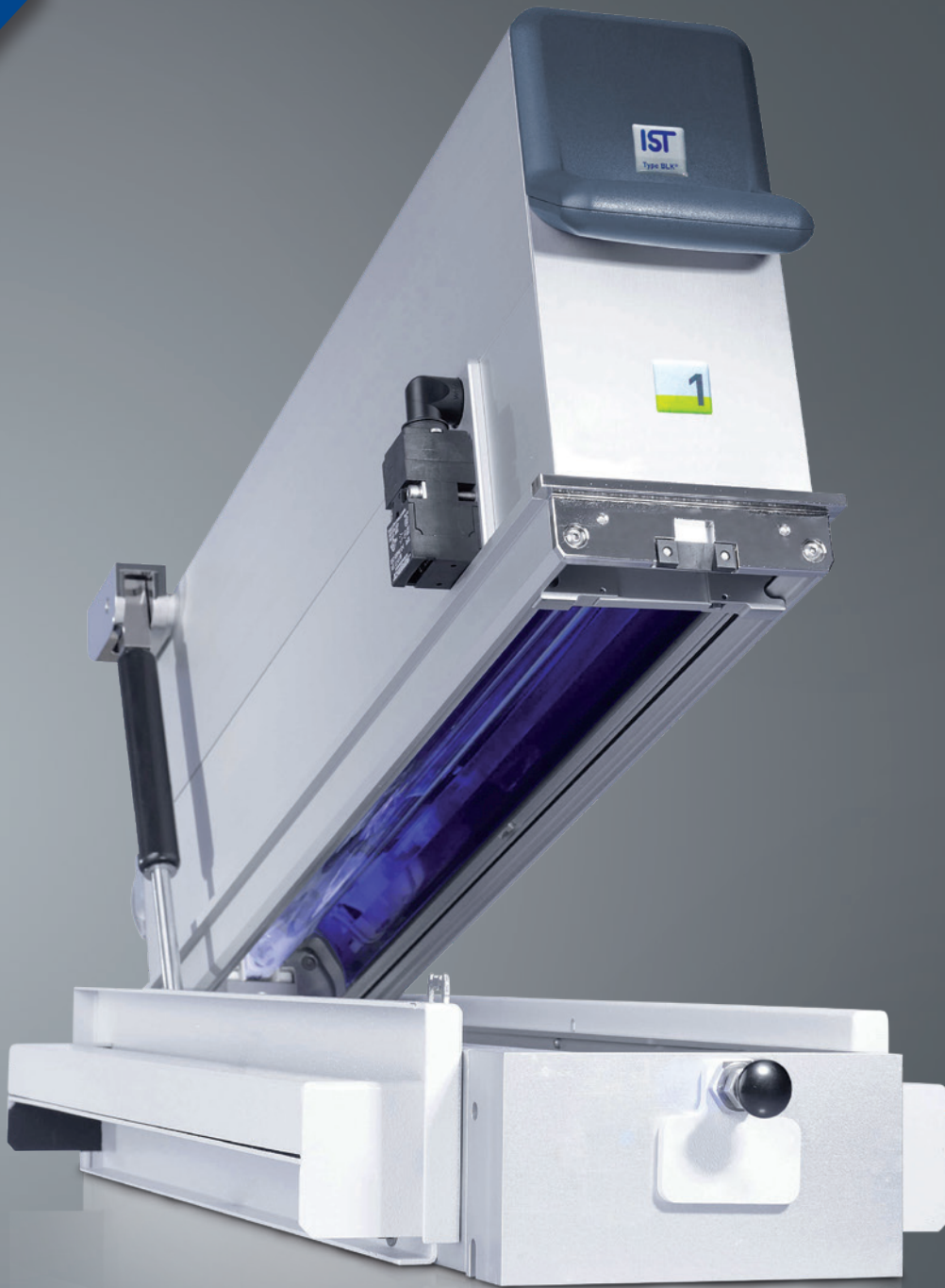


IST
energy in light



BLK[®] LAMPcure

Innovative. Efficient. User-friendly.

INNOVATIVE

Efficiency with heart and soul



Warranty

IST METZ provides a warranty of 10,000 operating hours for reflectors of type URS and 2,500 operating hours for UV lamps.

The brand new BLK LAMPcure system is based on innovative thinking:

- URS® Inlay Reflectors
- ELC® Electronic Power Supply Device
- FLC® Fast Lamp Change
- IPS Control Generation
- IST UV Online Sensors

New URS Inlay Reflectors

With more than 60 different metal oxide layers, the cold mirror reflector forms the heart of every UV system. The geometry of the URS Inlay Reflectors for the BLK LAMPcure has been further optimised, enabling a maximum of UV yield. These highly resistant reflectors boast an extremely long service life and optimum temperature management. The reflectors are easily accessible at all times for maintenance work, with the “inlay concept” developed by IST METZ allowing their fast and convenient replacement.

NEW: The geometry of the BLK LAMPcure reflectors has been further optimised and now achieves a UV yield that is 10% higher than the previous model.

URS Inlay Reflector Technology

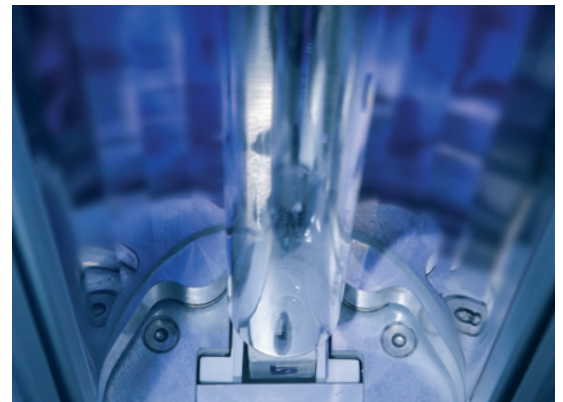
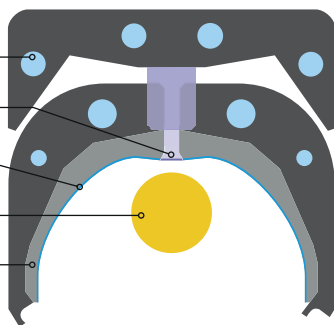
Water cooling

UV Online Sensor

URS Coating

UV lamp

URS Reflector





IPS Control Generation

Our intelligent IPS Control System governs all functions and components of the UV system. In addition to the classic functions, this control system offers additional possibilities:

- **Remote service:**
Remote diagnosis/maintenance
- **Universal interfaces:**
Optimum connection to the machine control panel
- **Condition monitoring:**
Accurate mapping of the UV system status

BLK LEDcure – high-performance LED system

IST METZ offers a completely new developed LED product portfolio for a variety of different applications. The highly efficient, water-cooled BLK LEDcure system is the flagship of the new product range.

The new LEDcure...

- is economical
- is suitable for retrofitting your system with LED technology
- extends your range of applications
- protects the environment and conserves resources



EFFICIENT

BLK LAMPcure improves your energy balance



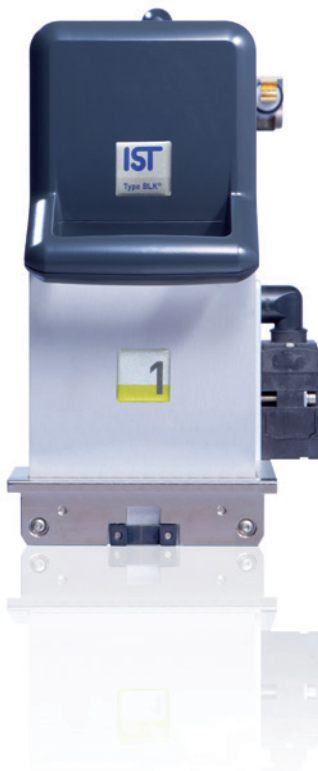
UV systems from IST METZ are designed for optimal use of energy input to improve the efficiency of each new product generation over its predecessor.

BLUECOMPETENCE

Alliance Member

Partner of the Engineering Industry Sustainability Initiative

IST METZ is a Blue Competence Sustainability Initiative partner to conserve resources with innovative technologies and provide sustainable protection of the environment.



The BLK LAMPcure is setting new standards

State-of-the-art tools from both research and development have been used in the new BLK LAMPcures design. The URS reflector, for example, has been further developed using raytracing technology. With the application of suitable surface coating, the maximum amount of UV energy on the substrate can be achieved.

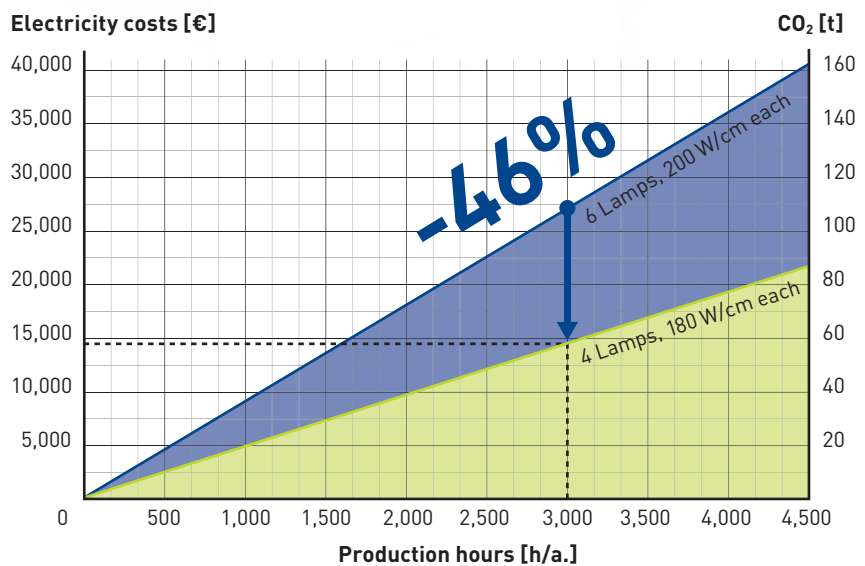
Mechanical components – as well as the complete system itself – are examined in thermodynamic simulations which, under extreme conditions, guarantee the optimum reliability and efficiency of our components.

For our customers, the resulting efficiency of our systems means significantly reduced energy consumption, exhaust air and cooling power. Consequently, the operating costs saved each year with the BLK LAMPcure can amount to tens of thousands of Euros. Furthermore, the UV system's reduced energy consumption means several tons of CO₂ emission are avoided annually.



Maximum productivity, minimum operating costs

The BLK LAMPcure is a newly developed UV curing system designed to meet the highest of industrial requirements. When compared to conventional UV systems, remarkable progress has been made in curing performance of the BLK LAMPcure without having to increase the UV lamp output. This means greater productivity with reduced operating costs.



The diagram shows the electricity costs and CO₂ emission (according to German Energy Mix) in relation to the connected electrical power, together with the potential savings to be made by using current BLK LAMPcure compared to BLK-2 – based on the entire UV system per annum. Basis for calculation was a stand-by time of 20 percent and an electricity price of 0.12 €/kWh.

USER-FRIENDLY

Perfect integration and optimum handling



URS Inlay Technology

The new URS reflectors have been optimised using the latest raytracing software – the UV yield on the substrate has increased while maintaining the same lamp output. The URS Inlay Technology facilitates a quick change of the reflectors and thus reduces maintenance times to a minimum.



FLC Fast Lamp Change

The cordless FLC UV Lamp System facilitates a quick and easy change of the lamps. The UV lamp can be removed simply from the lamp unit by hand. Changing the lamps is possible within seconds, meaning several hours of additional machine availability throughout the year. The cleaning of the lamps is also a trouble-free procedure.



Hot-Swap Technology

The hot-swap concept for LAMPcure and LEDcure systems means that these two technologies can be operated alternately at any time. Switching from UV to LED technology (or vice versa) is simple and convenient. The UV units can be integrated in all models of well-known machine manufacturers. Existing UV units that are already powered by the ELC-X/PE series can be retrofitted with an LEDcure system.



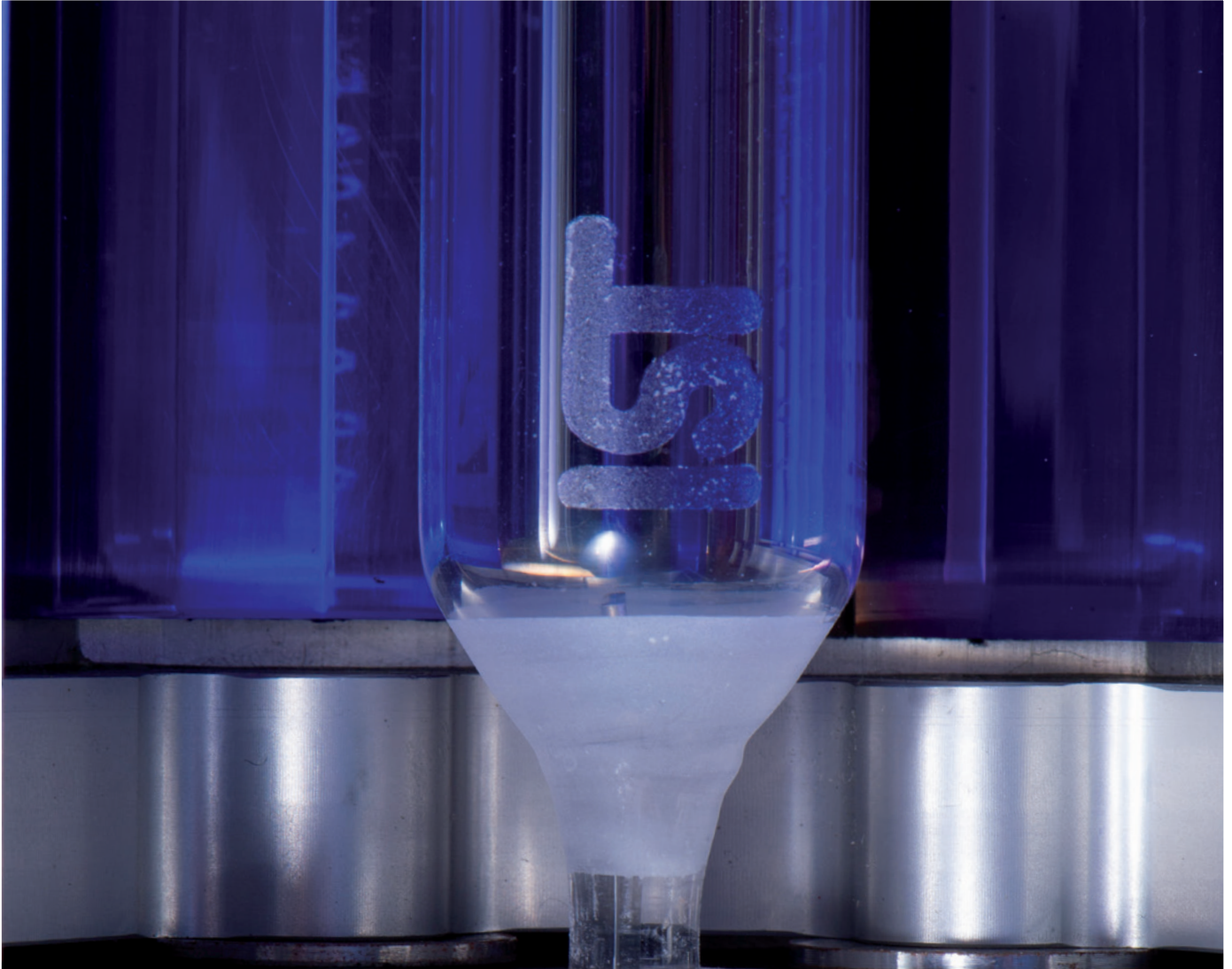
IST UV Online Sensor

BLK LAMPcure UV systems are equipped with a UV online sensor as standard. The sensor facilitates online measuring of the radiant power of a UV lamp. The operator display makes it easy to check the performance, and the status of the UV lamp can be monitored continuously. Performance reduction due to staining and ageing can be calculated on the basis of direct UV radiation measurement of the UV lamp.



The IST UV Online Sensor at a glance

- Measurement of lamp
- Description of system performance
- Warning of decreasing UV power
- No additional measurement devices or interfaces required
- Reliable sensor technology



High-efficiency UV printing

There are two significant factors involved in increasing efficiency: The use of optimised components and their perfect coordination with each other. We develop and produce all the important components of the BLK LAMPcure, such as the reflectors, lamps and electronic parts, ourselves. With high efficiency and low output in standby operation, energy consumption is noticeably reduced – a further contribution towards saving costs. The new BLK LAMPcure taps the full potential for saving energy costs, without compromising on quality or production speed.

As a world-first in its class, the BLK LAMPcure has received the "DGUV Test" seal of approval (previously the GS Mark). The seal is a valid and legally regulated test symbol for product safety that is recognised throughout Europe.



Inert Gas Option

An inert gas version of the BLK LAMPcure is also available for special requirements, such as in the food packaging sector. More than 25 years of experience in this sector guarantee the perfect integration of our systems. The specially developed inert gas concept provides for a very low gas consumption.

Smart Control



The current generation of the BLK product family is equipped with the Smart Control system user interface. This makes the operation of UV systems clear, it is easy to use and it allows straightforward integration into the control systems of all common kinds of printing press.

Further information?

Learn more about our new UV-LED curing systems.
Visit us: www.ist-uv.com



BLK LEDcure

Modular. Compact. Efficient.

The BLK technology is also available on LED basis. The modular design provides the user with optimum flexibility and versatile usage options. The installed high-performance LEDs are ready for operation as soon as they are switched on – time-consuming and costly warm-up and cooling times are no longer an issue.

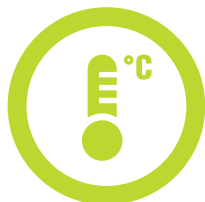
	BLK LAMPcure	BLK LEDcure
UV technology	Lamp	LED
Power level	≥ 240 W/cm	135 W/cm
Cooling	water-cooled	water-cooled
ELC electronic power supply device	ELC-PE ELC-X	ELC-PE ELC-X
Control	UCS-i, Smart Control	Smart Control
UV measurement	online	✗
FLC Fast Lamp Change	✓	✗
URS Inlay Reflectors	✓	✗
Run-up time	ca. 65 s	ca. 1 s
Heat management	optimised for water-cooling	optimised for water-cooling
Ready for Hot Swap	✓	✓
Spectrum – Standard	Hg	385 nm
Spectrum – versions	Fe, Galn	365, 375, 395, 405 nm
Options	- Inertisation - Chilled roller - Undershielding - UMS-2 measurement - Reflector geometry	- Inertisation - Chilled roller - Undershielding - Stacking concept - Zone switching
Maintenance	Lamps replaceable	LED modules replaceable
Remote maintenance „Remote Ready“	✓	✓
Format switching	✗	✓





IST UV Online Sensor

The IST UV Online Sensor has made it possible for the first time to measure the UV radiation efficiency of a UV system online and check it when required in the operating display. It is directly integrated into the reflector surface and ensures a particularly efficient production.



Optimum Heat Management

Any heat introduced to the process is efficiently dissipated by the water cooling of the reflectors and the housing. The thermal load on the web is further reduced thanks to a water-cooled undershielding or cooling cylinder.



Design and Functionality

The BLK LAMPcure combines a water-cooled support and reflector profile. The solid cross-section allows for lamp lengths of up to 2,300 mm. Due to its extremely compact form, the UV system can be individually integrated into the machine.

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