IST METZ HOLDING
more than UV

Press kit

drupa
2012

more³

PRESS KIT

Content

IST METZ at drupa: Hall 2, Stand B20

Get information about our trade-fair appearance at www.ist-uv.com/more3

More information about IST METZ: www.ist-uv.com

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1. IST METZ – Single-source supplier of UV solutions

Nürtingen's UV system manufacturer supplies products and services from the one source

IST METZ develops, produces and sells systems for the environmentally friendly curing and drying of solvent-free inks, varnishes and silicones. The focus of the business is on applications for the graphics industry. UV systems from IST METZ are also used in the automotive industry and many other industrial applications.

Around 600 people worldwide work for the Group founded in 1977, which is based in Nürtingen in southern Germany and is now made up of 14 companies. IST METZ has international subsidiaries in France, England, Italy, the USA, the Netherlands, Spain, Sweden, China and Thailand. A support network of agencies ensures that the group of companies enjoys a global presence.

The Group develops and produces all of the UV system components that are part of its direct core competence. This includes for example reflectors, which have a decisive impact on the quality and efficiency of a UV system. Their geometry and surface properties are primarily responsible for determining the amount of UV light that can be used on the substrate for curing. The majority takeover of VTD Vakuumtechnik Dresden GmbH in November 2003 enabled IST METZ Holding GmbH to expand its know-how and capacities in this key technology.

The Group's portfolio was expanded in 2011 with a partnership stake acquired by Integration Technology Ltd. (ITL) from Upper Heyford, north of Oxford. ITL is a specialist for LED UV technology and works

together with IST METZ in both the areas of development and marketing. Through this partnership, Nürtingen's UV specialist has not only further strengthened its ties to the important inkjet market but has acquired expertise of the 3D printing market, one that is gaining in significance in industrial prototyping.

The UV Transfer Center (UVTC) is a key element of the Group's commercial direction. With it, the contact between manufacturers, users and industry partners will be further cemented. The main task of the centre is to provide information and support concerning UV technology and its applications. One of the strengths of this new business unit lies in its combination of expertise (brainware) in core technologies such as printing and chemistry, and focus on practical implementation. The UVTC is also equipped with state-of-the-art printing and laboratory technology (hardware) and supports customers on all issues relating to UV technology. The UV Transfer Center supports newcomers to UV and experienced UV users alike with ideas and expert knowledge, underlining the company's long-standing philosophy of "more than UV".

This philosophy has been updated in 2012 with the slogan "more³", which was specially developed for the drupa event: The "e³" in the new label stands for "energy-efficient equipment" – the product label used to mark the particularly energy-efficient UV systems from IST METZ. All UV systems from IST METZ are consistently designed with the best possible utilisation of electrical energy in mind. The aim is to significantly increase the energy efficiency of each new product generation in comparison to its predecessor. Energy savings of around 30 percent in comparison to traditional UV systems, as well as lower operating costs for auxiliary systems such as ventilation and cooling, are the "green" benefits for the users of these e³ products.

2. drupa slogan from IST METZ documents move towards greater energy efficiency

Nürtingen's UV-drying system manufacturer is updating company philosophy with the new more³ slogan and turning the spotlight on energy efficiency – New "green" look for company at trade fair

When IST METZ GmbH unveils its new label "more³" for systems and services at drupa 2012, this change will represent far more than just a new look. We spoke with IST METZ Managing Director Dirk Jaegers about the new label, the background and how it all came about.

Mr. Jaegers, the new logo at the side of the IST METZ lettering looks pretty impressive – what exactly does it represent?

Dirk Jaegers: "We are updating our company philosophy with this new feature, which we first unveiled to the public ten years ago with the slogan "more than UV". We see ourselves as a full service provider of solutions for UV technology, and not just a system manufacturer. This can already be seen in the comprehensive services package our customers receive together with our products."

Could you describe this "comprehensive package" in more detail?

Dirk Jaegers: "From very early on, right back when we started out 35 years ago, we have placed great emphasis on internal know-how and achieving the highest standard of quality, avoiding sole reliance on suppliers. Our company group has continued to go from strength to strength as a result, and I'm not just talking about turnover here. The IST METZ Group currently comprises 14 companies, among them highly specialised subsidiaries responsible for the essential technical progress, as well as providing the customers with the expert

information they need. Take, for example, eta plus electronic gmbh where our UV lamps and electronic power supply devices are manufactured or S1 Optics GmbH, responsible for the coating of our reflectors. Our customers have access to all this expertise when looking for the right solution for their needs. Being able to provide such scope of support is one of our unique selling points."

But why then the need for the new label "more³"? What new direction has IST METZ taken that warrants this change?

Dirk Jaegers: "For a start, we make it our priority to update our corporate design every four years in line with drupa. For a company in the printing industry, that not only means refreshing the website but also creating a new image brochure with which we can once again showcase the possibilities for UV and the various print substrates in the graphics sector.

As part of this update, we have continued with the idea of "more than UV" and used it to emphasise our increased focus on energy efficiency: The word "more" now includes "e³", and that stands for "energy efficient equipment". We are also referring here to our own e³ label for new product series, which not only represent a high standard of reliability, performance and precision, but also significantly reduced energy consumption."

How will this reduced consumption be achieved? Will efficiency suffer?

Dirk Jaegers: "No, the opposite in fact: the degree of efficiency is generally better than with previous models with considerably higher energy requirements. We are designing these units a more conscious aim of optimum performance and economic feasibility. That means: new electronic power supply devices, high-quality UV lamps, innovative reflector technology with optimised raytracing and a very

effective reflector coating, as well as an intelligent control that makes the most of saving energy. At the end of the day, the customer receives UV drying systems with the e³ label, machinery that far exceeds the competition in terms of efficiency.

Most important of all, however, is that we always take the benefit to the customer in conjunction with the degree of efficiency into consideration when developing new systems: total cost of ownership is today more important than ever when making a purchase decision. And we have committed ourselves here to being able to offer the lowest values."

3. Plenty of UV light from low energy levels

The new BLK®-6 system offers a high degree of productivity for lower operating costs – IST METZ focussing more on energy efficiency

For this year's drupa (3 to 16 May 2012), IST METZ GmbH (Hall 2, Stand B20) will be presenting its latest products from the renowned BLK® series. The new BLK®-6 UV concept is keeping in line with the development goal of Nürtingen's UV specialists to considerably improve energy efficiency for every new product generation. While earlier UV systems from IST METZ made a valuable contribution to a more ecologically sound printing process through reduced energy consumption and less CO_2 emissions, the new BLK®-6 version has gone one step further.

A whole series of innovative technological ideas that facilitate a high standard of efficiency are hidden behind the modern housing design. Current examples include the newly developed IPS control generation and the UV online sensor from IST METZ. The IPS concept builds on the classic functions of a control system, adding intelligent options such as remote service and monitoring. All BLK®-6 units are fitted with the new UV online sensor as standard. The miniature sensor, directly integrated into the surface of the reflector, measures the UV radiation efficiency before showing it in the operating display.

Basic components such as the new URS® inlay reflectors, the ELC® electronic power supply device or the proven FLC® quick-change lamp concept also play an important role in the performance of a UV system. With the main parts of a UV system, which includes UV lamps and electronics, fully developed and manufactured by the company itself, it has been possible to ensure a steady optimisation and effective collaboration of the individual components in an overall high-performance system.

An inert gas version of the BLK®-6 is also available for special requirements, such as in the food packaging sector. More than 20 years of experience in this sector guarantees the perfect integration of our systems. The specially developed inert gas concept facilitates very low consumption.

Productivity gains that cost less

Users stand to benefit significantly from the effective interaction of components in the BLK®-6 UV system, with the new generation allowing for greater productivity at reduced operating costs. In practice, for example, this means that using two of the new BLK®-6 devices is enough to achieve the same curing results from three UV units several years ago. The immediate result is reduced current consumption, noticeable in lower energy costs.

These efforts will be recognised at this year's drupa in the form of the “energy-minimised UV printing” label, which will be awarded by independent trade association BG ETEM (Berufsgenossenschaft Energie Textil Elektro Medienerzeugnisse). In addition to this label, the BLK®-6 has also received the “DGUV Test” seal of approval (previously the GS Mark). This seal of approval represents a test mark, legally regulated and applicable all over Europe, for product safety.

Increased efficiency compensates for rising energy prices

For years, energy prices have been heading in just one direction. This trend has continued following the aftermath of the global financial and economic crisis, as well as the energy turnaround introduced by the German government. The increasing global demand for energy will continue to drive the prices upwards. “For printing companies, today’s energy prices represent a significant part of production costs. Intelligent solutions will thus be required in the future to keep these

prices in check or, even better, see them drop," says IST METZ Managing Director Dirk Jaegers. "The new BLK®-6 makes it possible to conserve resources in production. The energy saved thus has a direct influence on the company electricity bill and opens up possibilities for reducing production costs."

Products from IST METZ that are particularly energy efficient will now feature the label "e³". This stands for "energy efficient equipment" and is to be gradually added to all of the company's UV systems. And to make sure this is possible, product development will continue to focus on the optimum use of electrical energy.

4. UV systems becoming more intelligent

New online sensor from IST METZ allows for UV measurement during production – IPS intelligent control system with additional functions

The new BLK®-6 system will be taking centre stage at the IST METZ GmbH stand at this year's drupa. This latest product generation facilitates a particularly efficient use of electrical energy and users thus benefit from greater productivity at reduced operating costs. Furthermore, the new system boasts innovative solutions for making everyday production tasks easier. This includes, for example, the redesigned IPS control generation and the UV online sensor.

The latest electronic development is the completely redesigned IPS control system, which comes as standard with the BLK®-6 units from IST METZ. The use of electronic power supply devices, in comparison, has long been standard. These ELC devices already boast intelligent electronics, with an infinitely variable dimming range of the UV lamp and a flexible, efficient operation of the UV systems. The clever, compact ELC® stacking concept also reduces space requirements by up to 50%.

The electronic IPS controls all classic functions and components of the UV system and allows for a whole range of additional intelligent functions. One example here would be the remote service, which facilitates customer-friendly remote diagnosis and remote maintenance. Universal interfaces guarantee a smooth connection to the respective machine control panel.

Furthermore, the operator is always aware of the current UV system state thanks to information provided by the “Condition Monitoring”

function. And with the energy management function, energy consumption data for the UV system is compiled and displayed on the operating screen when required.

Another new feature included in all BLK®-6 units is the UV online sensor. This has made it possible for the first time to carry out online measurements of individual UV lamps during printing and to show system performance in the operating display using a simple traffic light system.

For this application, IST METZ developed a miniature sensor that is integrated into the surface of the reflector and is directly connected to the unit control system. The operator thus receives real-time measurement values for the UV lamp and reflector. Additional measurement devices or interfaces are no longer required. In the event of diminishing UV performance, the reliable sensor technology sends a warning. Personnel can immediately take action before there is any negative influence on the performance of the UV unit.

As the new functions represent fundamental advantages for UV printing, IST METZ is planning to gradually equip all UV systems with IPS and online sensors.

5. Efficiency³

With MBS®-6, IST METZ is taking the next successful step towards improving the energy balance of UV label printing

Greater energy efficiency has been a top priority of the development team at IST METZ GmbH for many years. The new MBS® UV product generation, presented for the first time by the UV supplier at Labelexpo Europe 2011, represents further progress here towards achieving a sustainable use of energy.

The first major success for Nürtingen's UV specialist was in 2005, after presenting the earlier MBS®-5 at Labelexpo. Compared to the standard UV units at the time, this new system saw 40% more UV energy reach the substrate surface.

Increasing efficiency lowers costs

IST METZ has since worked hard to further develop this product, successfully managing to increase efficiency once again. With the MBS®-6 system, only a lamp output of 120 W/cm is required to achieve the same drying results as traditional UV units with lamp outputs of up to 200 W/cm. This has primarily been achieved by optimising the individual components, such as the reflectors, lamps and electronic parts which are all developed and manufactured by the company itself, as well as ensuring their exact coordination with each other.

As far back as six years ago, the industry was discussing rising oil and energy prices and calling for the conservation of depleting resources. The situation today is even more critical, one reason being the global economic crisis and the recently introduced energy turnaround. Global energy consumption is also continuing to rise, thus

pushing energy prices upwards. “As energy costs in label printing represent a significant part of production costs, intelligent solutions will be required in the future to keep these prices in check or, even better, see them drop,” says IST METZ Managing Director Dirk Jaegers. “The new MBS®-6 facilitates sustainable production. The energy saved has a direct effect on the company’s electricity bill and opens up possibilities for reducing production costs.”

The following sample calculation shows how much savings can actually be made. Take an eight-colour printing press, for example, that runs for 3,000 hours of production each year. Lamp length is 450 mm and the price of electricity has been set at €0.12 per kW/h (European average for the industry). Using traditional UV technology and a lamp output of 200 W/cm, the annual electricity costs amount to €25,920. If the lamp output is reduced to 120 W/cm after upgrading to MBS®-6, the electricity costs for UV curing on this printing line drop to €15,552: representing a saving of €10,368 each year. The same standard of quality and productivity are maintained for the UV curing, despite lower lamp output.

New reflector technology

According to IST METZ, the recent boost in efficiency can be traced back to a series of innovative solutions. Significant progress has been made, for example, in the newly developed reflectors and their URS® Duo technology. A combination of special URS® and URS®-A reflectors has made a considerably greater degree of reflection possible. Furthermore, the geometry of the reflectors has been optimised for use in label printing with raytracing technology. In contrast to traditional reflectors, the URS® series from IST METZ involves so-called cold mirror reflectors which have more than 60 different metal oxide layers. They ensure that the IR radiation is discharged directly to the air-cooled aluminium profile via the coating.

Thanks to the specially designed rotary reflector, the MBS®-6 system is very compact in size and can thus be integrated into label printing machines without a problem. The dryers are also easily accessible for maintenance work. Further savings are made with the installation of the ELC® power supply device, a standard feature in the MBS®-6 UV system. The intelligent electronics here allow for infinite regulation of the UV lamp's entire dimming range. The clever, compact ELC® stacking concept also reduces space requirements by up to 50 percent.

There are not only savings to be made from low-energy production, but availability of the printing press can also be improved. The new UV system has thus been specifically optimised to reduce downtimes. The cordless FLC® UV lamp system plays a part here, for example, making it possible to remove the UV lamp from the lamp unit with just one hand movement. A lamp replacement thus just takes a few seconds.

The MBS®-6 unit has also been designed as a quick-change cassette. As all supply connections couple automatically, it can simply be pushed into the machine. The inner housing can be removed from the outer one for maintenance work without removing any screws, facilitating the easy access of all unit parts. This reduces the time taken for maintenance and cleaning, as does the optimised cooling of the UV unit. Thanks to the reduced lamp output of 120 W/cm, the flow of air required here and the quantity of exhaust air can be adapted to ensure the lamp and reflector become considerably less contaminated. Furthermore, standard preparation of the MBS®-6 units for UV measurement using the mobile UMS-2 measurement device presents a simple way to monitor output, thus helping to avoid machine downtimes.

Due to its high degree of efficiency, the MBS®-6 system has been classified as being particularly energy efficient by the independent trade association BG ETEM (Berufsgenossenschaft Energie Textil Elektro Medienerzeugnisse Branchenverwaltung Druck und Papierverarbeitung) and, as a result, may display the label “energy-minimised UV printing”. Furthermore, as a world-first in its class, it has received the DGUV Test Seal of Approval (previously the GS Mark) from the German Social Accident Insurance Association (DGUV), a legally regulated and internationally recognised label for product safety.

6. Saving energy with the new UV concept for sheet-fed offset printing

IST METZ presenting particularly efficient sheet-fed end-of-press-drying with newly developed flexible shutter position

A new sheet-fed end-of-press drying system represents a further improvement on the proven UV system technology from IST METZ regarding both output and energy consumption. Significant, innovative progress has been made here with the flexible position of the shutter.

With the IST METZ UV system for sheet-fed offset printing, only two individual plug-in modules are required for the latest drying operations. The UV output for the new units can be compared to the current three-lamp systems, which are capable of achieving a high quality of drying but actually require significantly more energy. By eliminating the use of a cassette, energy consumption will be reduced by at least 33 percent.

Sheet-fed end-of-press drying machines thus bear the e^3 product label, representing the high degree of energy-efficiency from IST METZ. It stands for “energy efficient equipment” and is to be gradually incorporated into all UV systems from the company. To make sure this is possible, product development will continue to focus on optimising the use of electrical energy.

Significantly influencing the efficiency of the entire system is the reflector geometry. In sheet-fed end-of-press drying, so-called URS® cold light reflectors are used. Here, more than 50 metal oxide layers are vapour deposited onto a reflector in a high vacuum. They determine the specific reflection properties, ensuring that UV light is reflected as effectively as possible and “interfering” IR energy is

transmitted. This significantly reduces the build-up of heat and simplifies printing on temperature-sensitive materials.

Using inlay technology, the reflectors are force- and form-fitted in the unit to ensure the half shells can be replaced without a problem.

UV output can be increased using optional reflective strips. These strips expand the reflector surface and are part of the shutter. Through their integration, optimum cooling is possible. The newly developed multi-stage FSP (Flexible Shutter Positioning) drive allows the user to reduce the shutter opening to an interim stage when processing temperature-sensitive substrate. The various shutter openings can be manually switched at the control panel or automatically, depending on speed. The influence of temperature on the substrate is thus reduced once again. IST METZ registered this development for a patent in 2012.

The process heat is effectively discharged through water cooling and an additional cooling of the air ensures smooth operation of the UV lamp. The cordless FLC® (Fast Lamp Change) UV lamp system facilitates the easy replacement of lamps in just a few seconds. Lamp output can generally be regulated to between 30 and 100 percent.

The new system is also a retrofitting option. As it is only the mechanical cassettes that need to be changed, there is no need for any investment in the electrics or cooling. Depending on annual production output, short amortisation times are thus possible. Here, IST METZ offers all interested parties individual economic efficiency evaluations.

7. Low-energy UV – Less is more

Innovative UV unit from IST METZ increasing efficiency of commercial printing

LE UV, the drying system first presented by IST METZ at UV DAYS 2011, is opening up new application possibilities for sheet-fed offset printing. Proving to have considerable potential for saving energy, it is now also possible to combine extremely efficient production methods with the advantages of UV technology in commercial printing.

This is due to the combination of high-performance drying technology with specially adapted highly reactive printing inks. Similar to LED UV technology, the colour systems are coordinated with the spectral range of longer waves. What results is a minimum-energy curing that not only reduces power consumption during production but also lowers investment costs: Just one unit with a single drying system is required for process-colour printing, and this without any restriction to printing speed. The system can also be used to cure an additional layer of varnish. For face and reverse printing machines, a second unit is located before the turn.

The drying units are equipped with the proven URS® cold-mirror reflector technology and the electronic ELC® power supply devices. UV lamps are also used, primarily benefitting output in the long-wave range. The quartz glass used prevents the formation of ozone.

As the layer of varnish dries immediately, there is no need for powder. The printed sheets can be finished offline straight away using various procedures and passed on for further processing. Due to the low level of penetration, printing results of a particularly high quality are also possible. Bleed ink areas do not pose a problem either. Furthermore,

the colours used are highly resistant to abrasion, ruling out the need for a protective coating.

With less than two square metres required for the switch cabinet, cooling unit and exhaust-air unit, the machine takes up considerably less space than conventional dryers (e.g. infrared) or standard UV units. For the LE UV unit, there is no delivery extension required at the machine.

The various possibilities that LE UV technology opens up for printing companies will be demonstrated by IST METZ at its drupa trade fair stand. One presentation will involve UV sheet-fed offset printing, whereby the outer packaging and playing cards from a tangram puzzle game will be printed on a Heidelberg Speedmaster XL 75-5+L. With just one LE UV lamp, four colours and special varnishing effects will be printed.

8. Ideal pairing: Inkjet and UV

mprint relies on the drying technology from Nürtingen-based UV-supplier IST METZ for its various printing machines

At drupa, IST METZ GmbH and mprint Morlock GmbH + Co. KG will be joining forces to present the latest generation of their UV inkjet system for label printing. The newly developed LP 2000 NG has a printing width of 215 mm at a material width of 260 mm (10″). The maximum printing speed is 48 m/min. With the inclusion of UV equipment, two different systems have been integrated to form one overall solution.

An MBS®-5 LI UV unit from manufacturer IST METZ is used for the UV end-of-press drying. Before this, pinning takes place for the printing of each individual ink using VTwin Plus LED-UV units. The three pinning modules, each 80 mm wide, come from the company Integration Technology Ltd. (ITL), with whom IST METZ has formed a strategic alliance since 2011. For the stamping, cross-cutting, slitting, punching and perforation processes, the system is equipped with an inline conversion unit.

The highest standard of inkjet quality

With the new printing system, mprint Managing Director Michael Morlock is meeting the requirements of the label market for a flexible solution to the manufacture of small series to average print runs. The scope of application ranges from the simple identification labels to jewellery labels for the cosmetics industry.

UV solution

Using what is known as the “pinning method”, the drops of ink are “gelified” after the printing of each colour to ensure the shape of the printer dots doesn’t change. This significantly increases the accuracy of the print result. The printed image appears much clearer even when small fonts and thin lines are used.

With their output of 1.5 W/cm², the VTwin LED pinning systems meet the requirements for this application. And despite their sufficient output, they are compact and light. The 240 mm-wide units can be dimmed and work with air cooling. Pinning can be used for both the printing of plastics and for the processing of coated and uncoated paper.

Variable dryer position

A high-performance MBS®-5 LI UV unit is used for the end-of-press drying, which has a lamp length of 250 mm and can be operated with an electrical output of up to 270 W/cm. The UV system is fitted with quick-change lamps (FLC®), URS® reflectors and an ELC® electronic power supply device. The position of the end-of-press dryer can be dynamically adjusted via a linear drive. This facilitates the adjustment of the distance covered to the respective printing speed and the different viscosities of the inks used. The position best-suited is generally determined during setup. The UV unit also has enough power reserves to cope with higher web speeds, which are to be expected with the even more dynamic print heads of the future.

The elaborate heat management system is based on an air cooling process which also involves an air-cooled undershielding. In order to stabilise the flow of air, the system is closed with a quartz glass plate.

Filter mats minimise the risk of contamination of the lamp and reflector.

More refined printed image with hybrid machine

In order to expand the application area of the machine, the experts at mprint have gone one step further. By combining both the inkjet and thermo-transfer digital printing procedures, an unexpected variety of additional finishing options have opened up, such as high-coverage white or high-gloss metallic effects, as well as the possibility of imprinting or incorporating safety features.

After ten years of using the established label printing system LP 2000, mprint has gained sufficient experience in thermo-transfer printing. The uni- and process-colour printing boasts a resolution of 400 dpi. The comprehensive system is user-friendly and combines the technology of this printing procedure with versatile further processing options. With this integrated system, work steps such as lamination, stamping, cross-cutting, slitting, punching and perforation can be carried out in one go. Various print substrates can be used, such as the continuous plastic and metal composite films, coated fabrics and paper.

Synergy effects for three procedures

The range of products from mprint comprises, in addition to the systems for inkjet label printing and thermo transfer printing, machinery for pad printing. In Baiersbronn-Mitteltal in the northern Black Forest, the company currently employs twelve workers at a modern production site. Here, the printing presses with the various technologies are developed and manufactured.

For years, the company has benefitted from the close collaboration with Morlock Präzisionstechnik e.K., resident in the same building and

responsible for producing the high-quality components for mprint. Furthermore, there are useful synergy effects from the resulting platform technology, with many developments, such as part feeding and integration solutions, applied to all three printing procedures. This means shorter test phases, the reliable functioning of proven components and the saving of time and money.

The various possibilities that UV technology opens up for printing companies will be demonstrated by IST METZ at its drupa trade fair stand. Self-adhesive banderoles will be produced on an inkjet printing system from mprint during the event. An end-of-press drying from IST METZ will be combined with an LED pinning system from ITL for the drying of UV inks.

Further information can be found at: www.mprint.biz

9. ITL & IST METZ: LED, efficiency and profitability are key factors for UV market

Alliance with market leader in inkjet sector and focus on energy efficiency for classic UV units

Efficiency is a trump card for IST METZ: Just how serious Nürtingen's UV system manufacturer is about its "more³" strategy is not only seen in the strategic alliance with LED-UV specialist Integration Technology Ltd., but also in the latest BLK®-6 UV unit, one of the most efficient UV systems of its kind.

Integration Technology Ltd. (ITL) from Upper Heyford near Oxford in Great Britain already presented itself as a partner in 2011 at the IST METZ in-house trade fair UV Days, and the alliance between the two UV specialists in the area of LED application will now be showcased at drupa 2012. Here, the IST METZ Group will demonstrate exactly what can be done with UV LEDs in the area of inkjet printing. In the process, Nürtingen's UV system manufacturer is setting a further milestone in the collaboration with ITL on sales and development.

ITL was founded in 2000 and currently employs around 40 people. The company specialises in the development and marketing of UV systems for the inkjet sector and generates an annual turnover of almost 5.7 million Euro. This special focus perfectly complements the portfolio of IST METZ, who has also taken a financial stake in the British company due to the impressive synergy effects that have resulted.

In addition to opening up the promising LED UV segment through the alliance with ITL, Nürtingen's UV specialist has also further developed its own product range and will be showcasing these energy-efficient printing presses at this year's drupa. The new BLK®-6 will be presented, which has been specially developed to meet rotary printing

requirements. Thanks to a comprehensive optimisation of the reflector, it was possible to significantly increase the efficiency of the UV system which maintaining the low output of the UV lamp. Using just two BLK-6 units instead of three BLK-2 units as was previously the case, it is now possible to achieve the same drying results. The clear reduction in the electrical load has an immediate impact on the electricity bill. The additional costs for cooling and ventilation of the high-performance units, for example, also drop as a result.

This significant increase in efficiency has resulted from an ingenious research procedure: The beam path of the UV lamps in the reflectors was simulated and calculated on the computer using raytracing technology. The reflector coating is made from more than 60 different metal oxide layers, making it not only extremely efficient in the light spectrum intended but also very sturdy.

The IST METZ-control unit for the BLK-6 also contributes to saving energy: Optimised standby switches and dimming of the lamps to adjust the efficiency level required creates the ideal unit for drying using UV light.

A similar integral solution was developed for the MBS®-6 UV-system for label printing, which will also be on display at drupa. Thanks to a completely new reflector geometry, lamp output could be reduced from 200 to 120 Watt/cm - depending on the application, this means a saving of several thousand Euro every year in electricity costs, while maintaining the same drying performance. Due to the lower energy requirements of the lamp, costs are also reduced for cooling – another positive feature in the final TCO (total cost of ownership) bill.

“We are convinced that our customers will be impressed with this strategy of lowering operating costs,” says Dirk Jaegers, Managing Director of IST METZ GmbH. “That UV technology opens up a world of possibilities for the printing industry has already been proven over the

last 35 years. Now we just have to show that it can be done with lower operating costs.”

10. UV Installations of IST METZ

IST METZ GmbH will not only be present at its own booth in hall 2, B 20. UV installations of IST METZ can also be found at the following booths:

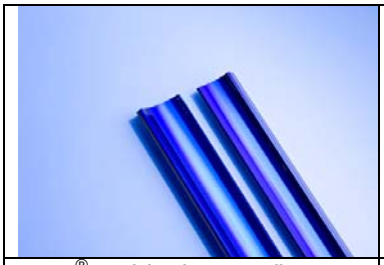
DJM	**Hall 8b / A76**
Gallus ICS	**Hall 2 / A45**
GIC Omegher	**Hall 9 / C41**
Heidelberger Druckmaschinen	**Hall 1**
Jänecke & Schneemann	**Hall 7.1 / D05**
KBA Meprint	**Hall 16 / C47-1**
Marks 3Zet	**Hall 3 / D34**
MGI	**Hall 4 / B24**
Müller Martini	**Hall 14 / C21**
Norbert Schläfli	**Hall 3 / C36**
Omet	**Hall 3 / D90**

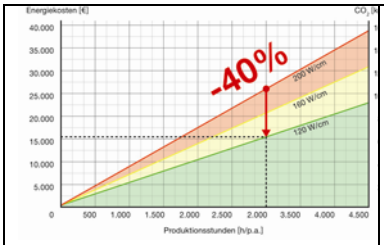
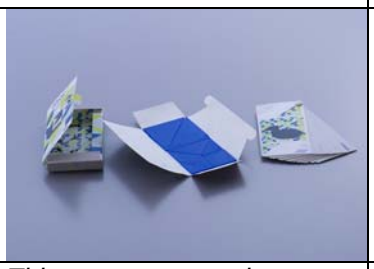
11. Picture overview

You can find all of the following pictures on the memory stick enclosed.

They are also available on **http://www.flickr.com/photos/ist-uv/**

		
Headquarter of IST METZ Atrium, exterior view IST METZ_Firmensitz.jpg	*Dirk Jaegers, Managing Director of IST METZ GmbH* IST METZ_Dirk Jägers_1.tif	*Dirk Jaegers, Managing Director of IST METZ GmbH* IST METZ_Dirk Jägers_2.tif
		
IST METZ labels its highly energy-efficient UV systems with the e³ product label. IST METZ_e³-label.jpg	*With the new slogan „more³“ IST combines its traditional values with the IST product label „e³“ for environmentally friendly and efficient systems.* IST METZ_more³.jpg	*IST UV core competences – lamps, reflectors and power supply devices* IST METZ_ Komponenten.jpg

		
URS® Cold Mirror Reflector Technology – optimized reflector geometry for each application IST METZ_URS-Reflektoren.jpg	*UV lamps by IST METZ – highest quality for the most different requirements* IST METZ_UV-Lampen.jpg	*UV systems by IST METZ – world leaders in terms of energy and cost efficiency* IST METZ_UV-Aggregate.jpg
		
Fast Lamp Change FLC® IST METZ_FLC.jpg	*With the quick change cassette all components of the UV unit can be easily accessed.* IST METZ_ Schnellwechseleinschub.jpg	*The BLK®-6 comprises a package of individual, perfectly matched components.* IST METZ_BLK-6.jpg
		
MBS®-6 – highly efficient UV technology for label printing IST METZ_MBS-6_ELC.tif	*UV system MBS®-6 – mobile UV measuring* IST METZ_ MBS-6_UMS-2.jpg	*The URS® Duo Reflector Technology meets the specific needs of the production process in label printing.* IST METZ_URS Duo-Reflektortechnologie.jpg

		
MBS®-6 allows energy savings of up to 40 percent. IST METZ_MBS-6_Diagramm.jpg	*MBS®-5 LI is used in inkjet printing.* IST METZ_MBS-5 LI.jpg	*With the end of press dryer of IST METZ, commercial printing becomes even more economical.* IST METZ_ Bogenendtrocknung.jpg
		
With ITL, IST METZ has won a strong partner in LED UV technology since 2011. ITL_Produktpalette.jpg	*This tangram game is produced live at drupa by means of UV technology.* IST METZ_ Tangramspiel_1.jpg	*This tangram game is produced live at drupa by means of UV technology.* IST METZ_ Tangramspiel_2.jpg