

newsline



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Fuji Photo Film (Europe) GmbH, Düsseldorf, for the print and media industry.

Top Story
Multilaser Technology
receives award

Case Study
Certified CtP System:
Fujifilm Luxel Vx-9600 CTP
at Mayr Miesbach


FUJIFILM



Dear readers,

Once again Fujifilm won an award for a technological masterpiece. After the American GATF InterTech Technology Award of the Graphic Arts Technology Foundation in 2000 our company Fujifilm Electronic Imaging Ltd. in Great Britain now has won the »Queen's Award for Enterprise« in the category of innovation. We won the award for our multi-laser-technology, which is used in the film exposure machine Luxel F-9000 and in the CtP-system Luxel P-9600 CTP. That is why the present Newsline edition is dedicated to this revolutionary technology, which is now also used in the new Fujifilm Violet-CtP-System.

This shows once again, that our efforts concerning research and development are worthwhile with regard to the development of systems, which allow our customers decisive competitive advantages. And this concerns all sectors of Imaging and Information beyond specific markets.

That is why we would like to point out to you two actual exhibitions, the newspaper exhibition IfraExpo 2002 in Barcelona from October 14th, onwards and above all the photokina 2002, which was a very successful exhibition in Cologne.

At the world-exhibition of photography and imaging Fujifilm presented one of the biggest booths promoting our sophisticated know-how on the sector of photography and all around the topic of pre-press stages.

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New Screening Solution

Fujifilm has added a new screening technology to its comprehensive range of pre-press solutions: Co-Res Screening is the name of this new technology which is part of the Celebrant-Extreme workflow and was specifically developed for use in Fujifilm's thermal and photopolymer plate-setters. Co-Res Screening allows high screen rulings to be output at lower resolutions than with conventional screen technologies (we will be introducing the technology in detail in one of the next issues of Fujifilm Newline).

Fogra Certificate

Mayr Miesbach had their Luxel Vx-9600 CTP certified by FOGRA, Munich. After three days of tough tests, FOGRA certified the Luxel Vx-9600 CTP and assured the complete absence of any negative risk factors whatsoever. Our case study on page 6 contains more details.

Persuasive Proof – special offer now on

At the First German Digital Proofing Forum, held from May 6-7, 2002 in Wuppertal and organised by the German Print and Media Association (bvdm) and the European Color Initiative ECI e.V., Fujifilm's Pictro

Proof digital proofing system more than held its own against the competition from a host of other popular systems. The results delivered using the system together with the Fujifilm ColorManager software were awarded the highest marks from the jury, which consisted of a team of independent experts. The resolution, colour accuracy and output speed of Fujifilm's Pictro Proof fully convinced the jury. In Germany Fujifilm is currently running a special offer for the Pictro Proof which includes a wealth of attractive terms and conditions.

New Brillia plate: No chance for flare

Laser reflection or reflecting particles in the drum can cause flare and haziness during plate production in CtP systems. The new sensitised layers and new developer technologies employed with Fujifilm's new Brillia LP-N3 plate have eliminated the effect of flare and improved both the exposure latitude and image quality. The new

plate also reduces developer sludge. The standard range comprises 0.15, 0.20 and 0.30 mm plates; 0.24 and 0.40 mm are available to order.

When used with coated stock the run length without baking is between 100,000 and 200,000 impressions.

HP 5000 DoubleProof: imposition proofing

Fujifilm presents the HP 5000 DoubleProof – the latest technology for dual-sided imposition proofing. The HP 5000 Double Proof comprises the Hewlett Packard DesignJet 5000 (106.7 cm output page width) and a duplexer device which automatically generates B1 format dual-sided imposition proofs. In addition to the features offered by the HP DesignJet 5000, the LFP proof printer has the outstanding accuracy (tolerance ± 1 mm) required to print on special dual-sided roll media. The entire production process for a dual-sided proof with eight pages takes an average of ten minutes.

Celebrant Extreme V5 Patch3

A new component for the Fujifilm workflow is the Patch 3 for Celebrant RIP and Extreme. In addition to several improvements, the new Patch 3 also supports DoubleProof and provides enhanced control for other supported proofing devices. Modifications have also been made to the PDF processing function. The Patch is available for all Celebrant 5 customers.

ColourKit for PCs

The Editor for PC is an optional extension for the "ColourKit Manager for PC", which enables the same fast, efficient output as the "ColourKit for Mac". ColourKit comprises the scanner driver interface with input and processing queue and the profile editor for creating individual corrections on profile basis.

Special deal on the Luxel F-9000 WM

Fujifilm, one of the main sponsors of the Football World Cup 2002 in Korea and Japan, is extending the special offer on the "Luxel F-9000 WM 2002 in Germany". A special service package deal for the Luxel F-9000 imagesetter and the associated online processor for only €19,400.

The special offer in Germany comprises, when purchasing Luxel F-9000 delivery, installation and start-up support, three years' warranty, free sourcing of spare parts, free delivery and maintenance, installation for all necessary on-site service visits, as well as three platesetter hardware inspections per year.

Uniform storage with the xD-Picture Card

Fujifilm and Olympus have teamed up to develop a new storage card for digital cameras, due to be launched this autumn. The cards have a capacity of up to 128 MB, with an 8 GB version scheduled for next year.

Fujifilm at Ifra

Fujifilm will promote the company's range of newspaper product offerings at Ifra Expo from 14th till 17th October in Barcelona. The stand is located in Hall 2, Stand 0780.



A recipe for success: the Multilaser Beam

In the past years, Fujifilm has launched a constant stream of outstanding technologies for the pre-press sector. The recipe for success of the winning, super-fast film and CtP platesetters is the Multilaser technology developed by Fujifilm Electronic Imaging, a technology that has garnered multiple awards.

The British Fujifilm subsidiary, Electronic Imaging Ltd. (FEEI), has won this year's "Queen's



Award for Enterprise" for innovation. The multilaser technology, was initially developed for the Luxel

F-9000 image setter but is now also included in the CtP system Luxel P-9600 CTP.

The process – called AOD (Acoustic-Optic-Deflector) – uses three separate laser beams which merge in the optical system to form a single aligned beam. This enables the single-laser configuration Fujifilm Luxel F-9000 to output up to 16 B1 films per hour at a resolution of 2,438 dpi. The dual-laser configuration can output 28 B1 films an hour, while the triple-laser configuration can produce up to 38 B1 films per hour – a performan-

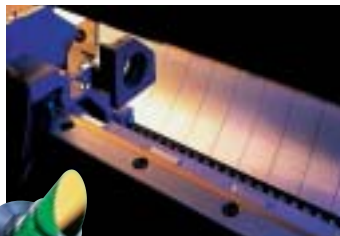
ce unsurpassed by any other device for the pre-press sector.

Internal Drum Technology

In large-format imagesetters there is simply no alternative to the internal drum technology. This technology has also long since established itself in CtP systems.



The technology offers the best conditions for high exposure speeds. The beams are controlled by optical systems and single-phase spinners which project the beam onto a film or plate. The spinners revolve at between 30,000 to 70,000 revolutions per minute. Fujifilm wanted to retain all the advantages of the spinner at lower spinner rotation speeds and still achieve the highest possible throughput. Fujifilm's engineers chose a multi-beam design, i.e. the use of one or two additional laser diodes, and thus the parallel imaging through up to three scan lines.



strip. While the carriage is in motion a sensor uses these signals to calculate the position of the imaging head. The rail is so precisely aligned that the centre of the spinner always traverses the lateral axis of the drum with an accuracy of $\pm 6 \mu\text{m}$.

The surface of the spinner is not completely flat, but slightly concave to compensate for material deformation at high rotational speeds. The gravitational forces that act while the spinner is rotating flatten the bowed surface.

Parallel laser beams

To achieve this technical breakthrough, Fujifilm's engineers had to overcome the problems of maintaining the integrity of the two parallel laser beams. Under normal circumstances, the laser beams would tend to "tangle" as they are reflected off the mirror. The implementation of Fujifilm-patented AOD (Acoustic-Optic Deflector) technology keeps the beams perfectly aligned by controlling the refractive index of elements in the beam paths.

Complete precision

The imaging carriage with the rotating mirror (spinner) for aligning the laser beam traverses along the centre axis of the drum driven by a high-precision motor along a polished metal rail with micro-lines as a reference

Speed can be improved

Constructive details like these give Fujifilm's Luxel F-9000 and Luxel P-9600 CTP a headstart on the competition. The already impressive output speed can be further improved by the later installation of an optional module. This module consists of a beamsplitter which divides the laser beam and individually modulates each half. This allows the Luxel P-9600 CTP to operate with two laser beams and nearly doubles its output capacity from 15 B1 plates per hour to 27 B1 plates per hour.

The new violet laser systems: available with Multibeam technology

With the introduction of its violet portfolio, and its continued support of thermal technologies, Fujifilm offers imaging systems that cover all prevailing technologies and provide customers complete freedom of choice.

Fujifilm unveiled the company's latest development in CtP technology, platesetters with violet light sources, at Ipx in spring of this year. Although these devices belong in the category of imagesetters that use visible light, CtP plates that are sensitised for violet light can be handled in yellow safe light conditions and are suitable for use in both automatic or manual platesetters. The latest generation of violet lasers is powerful enough to handle photopolymer plates. Fujifilm has fitted the violet light models of the Luxel V series (Vx-6000 CTP, V-9600 CTP and Vx-9600 CTP) in B2 and B1 format with this new technology. Top of the range model of the new series of violet CtP platesetters is the 9600, available in two configurations (with or without an integrated punch), which is based on the modular Luxel P-9600 CtP platesetter.

In the dual-laser configuration the Luxel violet laser platesetters offer outstanding performance, lower operating costs and provide faster throughput times.

Any device that can expose four B1 plates in just over five minutes or four B2 plates in only five minutes (dual-laser configuration at 1,219 dpi) simply has to be based on advanced, cost-sensitive technology. Even customers purchasing the single-laser configuration can enjoy exceptional output. In single-laser mode the Luxel platesetters expose 19 B1 plates per hour (V/Vx-9600 CTP at 2,400 dpi) or 23 B2 plates per hour (Vx-6000 CTP at 2,400 dpi), making them ideal for the transition from film-based plate production to CtP technology. If required, the devices can be upgraded later with a second laser. Fujifilm offers two format options for B1: with an imaging size of 1,158 mm x 934 mm, the Luxel V-9600 CtP provides one of the largest B1 imaging formats in any device with an inline punch. For web printing presses, which require plates to be imaged right to the edge, the Luxel Vx-9600 can produce plates with a maximum size of 1,160 mm x 960 mm and an effective imaging format of 1,158 mm x 957 mm, i.e. within 2 mm of the lead edge. This system is intended for use with an offline punch; the use of a three-point registration system ensures precise positioning.

The Luxel Vx-9600 CTP is currently the fastest B1 commercial printing CtP platesetter on the market and is used at Mayr Miesbach printing company in upper Bavaria (see page 6 of this issue of Newsline).

Certified CtP System

"It was a technological decision. Although we had decided to wait until 2003 before switching to CtP production, Fujifilm's violet CtP technology was so persuasive that we elected to take the step to CtP now", explains Oskar Amann, managing director of printing company Mayr Miesbach Druckerei und Verlag GmbH in Miesbach.

The extremely brief innovation cycles of the past few years, with new technologies appearing at a fast and furious rate, explain why even such a large and successful company is reluctant to dive headfirst into a new technology, but prefers to wait and watch, and then select the ideal method with systematic precision.

The web and sheet offset printing company Mayr Miesbach in upper Bavaria first started with Computer-to-Film eight years ago and "tested" working with a digital workflow. "We were very happy with this concept of a slow start-up, particularly because the growth of digital data delivery was so slow to start with. It is only in the last few years that we have noticed a considerable improvement", says Oskar Amann. "However, fixing digital data

that were not delivered in the required quality eliminated the advantages of digital data transmission. In brief: anyone who says that the data are perfect is generally wrong." Now Mayr Miesbach receives almost 95% of customer data in digital form; the company's own pre-press has been fully digital for some time. Amann: "We hope that this will increase to 100% soon. Even 5% manual processing hurts,

because you have to maintain varying workflows and keep the staff to do so."

However, Mayr Miesbach's structure dictates that the company cannot completely do without conventional montage, which is why digital workflow with CtF and manual plate production is integrated in the current workflow with Fujifilm's Celebrant for CtP. This parallel production has one decisive disadvantage, as department head Erwin Erler points out: "Having the CtF lines as a back-up is reassuring. But if CtF including film developing is not used permanently then the entire process becomes more unstable".

CtP brought leaner workflows

Despite this consideration, nobody regrets the passing of the CtF workflow: "Quite the opposite: we see that CtP gives us great advantages; for instance the fact that errors caused by films, such as mis-contacts, simply do not occur with plates. The whole workflow has also become leaner", states Oskar Amann, and explains, "I am not a believer in the wide-spread idea that CtP generally gives better quality. The advantages may be measurable, but they are not always visible!" This statement is only to be expected from a company that has always been fully committed to excellent quality and which has virtually exhausted the range of standardised processes in



Oskar Amann, managing director of printing company Mayr Miesbach Druckerei und Verlag GmbH, holding a Fuji proof which was used during the certification of the Luxel Vx-9600 CtP.

conventional production. At the same time, Amann concedes that the reproduction of motif-related sensitive shades is visually better. "However, the primary aim of CtP is not to improve quality, but to provide a consistent digital process without having to switch media. And that is precisely where Fujifilm's new technology helps us."

Vast time advantage

There's one thing that nobody at Mayr Miesbach will argue with: the time advantage. Heinz Wallner, head of technical services, says: "What is the use of technical innovation if it isn't economic?"



It seemed to us that none of the alternatives to violet light technology gave us economic benefits for our production technology. The Fujifilm Luxel Vx-9600 CTP makes us faster, and hence also more economic." The numbers to back

Happy faces in front of the Luxel Vx-9600 CtP: Erhard Franz, head of the prepress department; Erwin Erler, head of printing; Thomas Kurz, regional sales manager at Fujifilm; Heinz Wallner, head of technical services; Michael Sauer, key account Electronic Imaging Süd, Fujifilm.

this up are even more persuasive: "Instead of the ten or twelve plates which we could produce with thermo-CtP technology, we are presently churning out 30 per hour with the violet platesetter," Erwin Erler also sees the elimination of a complex step in CtP, namely film production, as a great advantage: "The plates are available faster." Erhard Franz, department head for pre-press, sums up: "The lower level of process fluctuation that we have with the CtP system gives us standardised plate production."

At Miesbach the main emphasis is not on getting permanent top performance out of the CtP system. However, in a typical workflow (forme proof, client approval, film and plate production) the benefits are perceptible: "With the new Fujifilm CtP platesetter we can have the first plates 15 minutes after customer approval and can start printing", explains Erwin Erler and Oskar Amann adds: "We have more and more productions that are time-critical. Waiting for plates means a delay before production can start and potentially leads into expensive overtime".

Plates get the thumbs up

The plates that Mayr use in the Luxel Vx-9600 CTP are unique. Fujifilm's LP-NV is the first photopolymer plate for violet light and exposure with 30 mW on the European market. "We were slightly

Mayr Miesbach – a brief portrait

Mayr Miesbach Druck und Verlag GmbH are a renowned firm of web and offset printers which has been family-owned and managed for 125 years. The company, located in Miesbach in Bavaria, has 170 employees and annual turnover of approx. € 21 million. Mayr Miesbach's core business is full production of print media, backed up by a range of cross-media services, including database publishing, CD ROM and internet productions. Around 40% of turnover are generated by advertising media such as brochures and catalogues; 35% are accounted for by books and magazines; while the remaining 25% are commercial jobs such as mailings, posters, etc.

The group also includes F. K. Schattauer Verlagsgesellschaft, specialists in medical publishing based in Stuttgart, which has 55 employees and publishes 14 medical journals and numerous books each year, generating annual turnover of € 8.5 million.

cautious about working with such a new type of plate. But this scepticism has vanished completely. The plates have proven to be excellent", explains Oskar Amann. The Bavarian printers have achieved run lengths of over 750,000 with the violet plate. Erwin Erler adds, "Fujifilm guarantees a run length per plate of 250,000; we have gone far above that even without baking".

Additionally, states Erwin Erler, printers can hardly tell whether the plate has been conventionally produced or made using CtP. Apart from the fact that Fujifilm's CtP plate carries approx. 5% less water. An this, says Erler, applies to both sheet fed and web media printing presses. "In a mixed production run, using both conventional and CtP plates, no changes need to be made to the press – apart from water reduction and the fact that register is achieved faster."

Fujifilm Luxel Vx-9600 CTP

The Fujifilm Luxel Vx-9600 CTP, which was presented at Ipex this spring, is based on Fujifilm's proven Luxel P-9600 CTP. The latest generation of violet lasers are so powerful that violet light photopolymer plates have become practical for the first time; this brings great benefits in terms of processing and the cost of developer and disposal. The new CtP plate-setter, which can be fitted with up to two violet lasers, is the continuation of Fujifilm's successful CtP systems with a different light source. Fujifilm's Luxel Vx-9600 CTP is only available as a fully automated platesetter without an integrated punch, which gives web printers like Mayr Miesbach the advantage of being able to optimally utilize the plate format and then punch offline. The Luxel Vx-9600 CTP has a maximum plate size of 1,158 mm x 957 mm and provides web printers with the decisive advantage of

being able to handle both portrait and landscape formats.

FOGRA Certificate

"We looked closely at CtP technologies before the last drupa", explains Oskar Amann. "On close inspection, some developments did not seem to have matured enough for us, the profile of several technologies did not seem to be secure and stable enough, and various other processes appeared to be too slow and too expensive". To get a final word on this topic Mayr Miesbach decided to have the new Fujifilm CtP platesetter certified by Fogra, a graphic technology research organisation based in Munich. "Fogra is the only organisation with the expertise to do this. What we wanted was an effective, detailed inspection of the system", explains Oskar Amann. After three days of meticulous testing Fogra certified the platesetter, stating that the Luxel Vx-9600 CTP displayed no negative risk factors whatsoever. The tests were run on Fujifilm's Celebrant workflow, the system's imaging time and the visual qualities using a new testing method. The UGRA/FOGRA digital plate control wedge, register, tonal transfer, reproducibility and long-term stability gave no grounds whatsoever for concern or criticism. "From our point of view", says Oskar Amann at the end of the interview, "I would recommend certification for any company."

All you need to know about CTP.

On September 2002, more than 170 visitors attended an afternoon seminar that had been organised by Fuji Photo Film (Europe) GmbH jointly with Walter Gerke GmbH & Co. KG, a Fujifilm dealer in Northern Germany. The forum focused entirely on CtP issues and was executed in a very impressive venue, the Peppermint Event Pavilion of Expo Park in Hannover. Obviously the high reputation of the speakers whom Fujifilm could win for this seminar stipulated the big interest. CtP technology has been adopted widely in the German printing industry, but there are still many questions related to new technologies, to workflow and to quality assurance. These topics were addressed by three experts well known in the industry. Ulrich Schmitt from FOGRA in Munich (the organisation that executed certification of the new Fujifilm violet CtP system at customer Mayr Miesbach, cf. article on pages 7 and 8) gave a lecture on quality assurance and standardisation with CtP. PDF "guru" Bernd Zipper who is deeply involved in establishment of PDF standards spoke about PDF in pre-press workflow, and finally Michael Mittelhaus discussed the benefits of new CtP technologies for the printing industry, amongst them the new technology of imaging violet photopolymer plates as a highly viable alternative to thermal CtP or the usage of silver halide plates. After the lectures, there was enough time for discussion with the experts, an offer that was well accepted by the audience. PDF files of the presentations – in German language only – are available. If you would want to obtain a copy, please send a request to Peter Röttsches at Fujifilm's headquarters in Düsseldorf, e-mail: proettsches@fujifilm.de.