



FROM left - Marcel Binder and Dirk Handler of Küchler are joined by FlexWell director Bernd Raming and Hans Weller, the printer's pre-press operator

# Putting pre-press first

**GERMAN** label printer Erhard Küchler has invested in its pre-press operations, including the installation of a DigiFlex digital platemaking system, as it looks to optimize its production processes. David Pittman reports

Erhard Küchler, based close to Stuttgart in Germany, is a third-generation, family run label printer that has its fingers in many pies.

From its facility, the company produces a broad range of labels for different industries in short and wide-web formats, and using a host of processes, from offset to water- and UV-based flexo printing.

The wide variety of printing processes Küchler utilizes places a heavy burden on its pre-press operations, where more than a dozen different plate types need to be produced and exposed. Up until around a decade ago Küchler outsourced this, but has since brought its platemaking in-house. This saw it invest in a Heidelberg Suprasetter for its offset printing plates and a film-based process for all others.

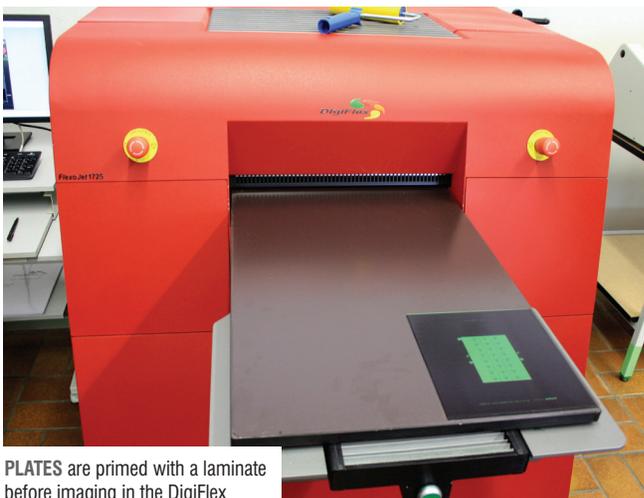
'Bringing platemaking in-house has allowed us to be much more responsive to our customers' needs,' says Küchler managing director Dirk Handler. 'We're able to respond directly to address issues and fix problems in minutes, rather than having to wait for a third-party to be involved.'

As part of the continuing evolution of Küchler, it is looking at new technologies to further optimize its production processes. This includes the latest developments in digital press technology, an area where it is keeping a keen eye on the latest in UV inkjet. 'We're always on the lookout for best practice systems, and want to invest in those that have the potential to boost our offering.'

Digital forms the basis of its latest investment in pre-press, where it has recently purchased a DigiFlex computer-to-plate (CtP) system. The DigiFlex system images analog plates digitally for flexographic, letterpress, dry-offset and rotary silk screen printing technologies, and has been designed to meet the market demand for better quality and faster delivery times.

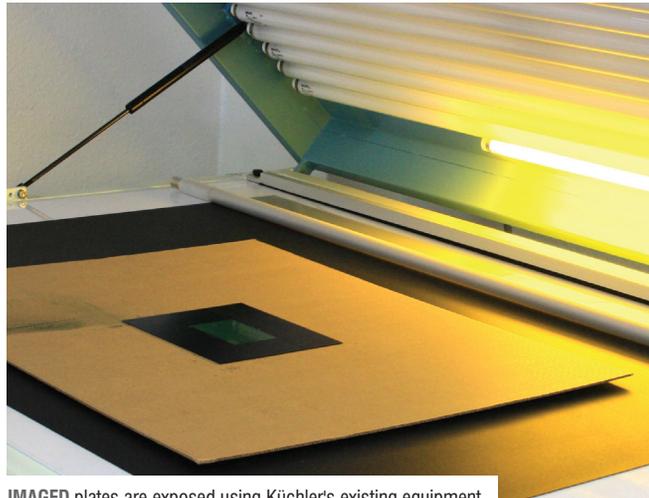
The DigiFlex system overall, and the specific FlexoJet 1725 installed at Küchler, uses a combination of ink and primer to digitally image plates. It is the chemical reaction between those two components that gels the ink and freezes the inkjet dot at a very small and precise size.

Further, the primer prevents the plate from being exposed to



PLATES are primed with a laminate before imaging in the DigiFlex

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IMAGED plates are exposed using Küchler's existing equipment



A HEIDELBERG SUPRASSETTER is used to produce offset plates at KÜchler

oxygen during the platemaking process, resulting in a flat-top dot and zero dot loss as opposed to laser-based digital platemaking processes where the dot tops are rounded due to air exposure. 'It also prevents ingress of dust and other atmospheric variables which you need to control when using analog platemaking,' says Handler. 'The laminate helps make it a reliable process.'

The FlexoJet 1725 was supplied to KÜchler by DigiFlex's European distributor Jet Europe and, more specifically, Jet's German agent FlexWell.

On demonstration, the DigiFlex system installed by KÜchler is quick and simple to operate. The plate, either rigid or flexible, is laminated with the primer at 90 degrees C, using a roll-fed laminator or a sheet-fed system depending on the plate size. This is then trimmed down to match the size of the plate before the cover sheet is removed and the plate is imaged inside the DigiFlex unit and dried. Exposure then takes place and the plate is washed off.

It is a very quick and clean operation from start to finish, and one that Handler is quick to praise for a number of reasons. Firstly, he says it has allowed KÜchler to achieve higher quality printing results without incurring the costs that it might otherwise have faced by implementing a High Definition platemaking process. 'Other HD processes are very expensive and more resource intensive, while this system is easy to use and requires minimal specialist training to achieve high-quality results.'

'The consistent dot shape greatly enhances quality, and high-quality printing is number one to all printers as it is what our customers want to see.'

Secondly, it has helped KÜchler achieve efficiency gains when dealing with such a wide number of plates, as well as not requiring the company to change or adapt any of its existing production processes or supply chain. 'Despite it being a digital process, we're imaging analog plates so are able to use all our existing supply channels and consumables with the system. We've also brought down our service costs as the unit automatically cleans itself each day, combined

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The FlexoJet 1725 has now replaced the film process that KÜchler previously used to image its non-offset plates, with the Heidelberg Suprasetter continuing to service the offset side of the company's printing operations. KÜchler has integrated the CtP system into its pre-press operations much quicker than initially planned. Installed in February 2013, KÜchler planned to run the new process alongside its existing platemaking equipment for a year, although imaging two-thirds of its non-offset plates using the CtP system. Although the film process is still available to the company's pre-press operations, it is rarely used, and within six weeks of installation the DigiFlex CtP system had taken on all of the work that was planned to be migrated to it.

'As we've not had to make wholesale changes to our pre-press process it has been quick to commission and implement,' says Handler. 'The process will continue to evolve as the technology develops. For instance, the laminator we use has not been specifically designed for the plate sizes we're producing, so there is some waste during that part of the process. In the future, I expect the equipment to be tailored to smaller sizes and eliminate this waste.'

'Overall, the environmental and economic gains of the DigiFlex system make good business sense for a medium-sized company like ours.'