

## Strong growth in large-format digital printing – without staff recruitment



**WORKFLOW AUTOMATION.** The corporate name is no longer quite up-to-date. Because at Siepro KG located in Steinheim/Murr, (almost) everything has revolved for two years around large-format digital printing, less around screen printing products as before. The company is growing and growing – both online and offline – and the production area is reaching its limits. Without workflow and process automation, things simply couldn't go on...

The growth rates in large-format digital printing are impressive. The web-to-print business via online shops as a digital sales platform and a general increase in demand for large format printing for media and advertising applications are constantly increasing the number of print jobs.

The 20 employees of the large-format printer Siepro KG located in Steinheim/Murr have also been confronted with this challenge for some time. The Swabian specialist in the area of films and special printing, also "offline" very successful in the B2B area with considerable specialist know-how and consulting competence, supports global players such as Siemens, Meto, Fein and Weleda in the creation of their print products. Job growth is 20-30% per year, with 70% of orders still not coming in through the online channel, which has drastically reduced the profit margins for a standard product and the time it takes to produce it.

Nonetheless, Managing Director Michael Hiemann was expecting up to 250 print jobs per day in autumn 2016: The manual processes that still dominate in some cases (for example, in print data preparation or the "construction" of collective forms with Adobe Indesign) simply can't go on! "But how can manufacturing be best done so that the same team can guarantee increased throughput while maintaining optimum quality," asked the print and media technologist? It was necessary to automate individual work steps as well as entire production processes in order to be able to continue working economically and efficiently in the future.

**COMPLEX PRODUCTION ENVIRONMENT.** Siepro KG produces advertising, product and 3D gel stickers, stickers sheets, backlit films (consumption: now more than 60000 sq m per year), POS products such as wobblers or crowners, adhesive films, signs and floor stickers made of various materials. The print service provider's order volume is around 4000 jobs per month. The production of the 40 different products in the portfolio is carried out with 20 large format printing systems (mainly roll-to-roll) limited to a format width of 160 cm. The presses used include four Océ Colorado 1640 (UVgel technology), one Océ Arizona 1200 XT (UV printer) and machines from Epson (Surecolor S30600), Seiko, Oki and five Zünd cutter. In addition to screen and UV offset printing, Siepro KG has been using large-format digital printing for two years now.

Although more and more customers are migrating to the web, Michael Hiemann wants to continue to run his print shop on two tracks: This is because the more marginal B2B area with niche products that cannot be mapped online (high-end print products with special processing, die-cutting, bending), or with the series individualization of individual products, can be kept stable. Nevertheless, on the other hand, the expansion of the company's own online shop (sticker-drucken-lassen.de) and the partnership with one of the large online printers are also growing plans for the future. The topic of automation therefore burned ever more violently under the nails.

Due to the fact that Siepro certainly has one of the most complex combinations of production lines at the start for an automation process and at the same time pursues a challenging delivery management (with tight delivery times of 24h/48h/5days), the company finally came into discussion with the software company OneVision from Regensburg after a lengthy evaluation process. OneVision's Wide Format Automation Suite was to solve the problems. In the end Siepro and OneVision jointly developed the solution based on their experience with the individual adaptation requirements in Steinheim.

**FLOWING...** The software solution combines workflow management, prepress package and special technologies such as nesting (generation of collective forms) or an integrated cutting line manager in one system. All this was adapted to the special requirements of the Swabian large format printer, after of course all standard processes first had to be mapped for the use of the Wide Format Automation Suite. Siepro production is characterized by a wide variety of materials in various widths and complex interactions between the substrate and the inks used. For the 40 products that the print shop offers in its portfolio, 40 "production lines" were developed and stored in the system with contingencies (e.g. Print motif with white, kiss-cut processing, cut line merging, etc.), in order to be able to automatically assign them to the corresponding order at any time in comparison with the leading system, for example an MIS. Using an XML file, an order is now fed to the correct production line after internal matching with the substrate to be printed and the artwork is nested accordingly. The cutting data for the printed product are then retrieved by means of the barcode generated by the OneVision software, assigned to the corresponding Zünd cutter, where they are then automatically read in. The cutting plotter's camera system then correctly aligns the "sheet" for trimming. Manual is then only the step of binding the individual blanks separated from the collecting form.

The nesting itself is not only to be seen as a possibility for the material- and cost-saving arrangement of small-scale unshapely subjects, but also for combining different "rectangular" small orders such as stickers! The fact that the so-called automatic cut line merging ("cut line") could be developed together with OneVision significantly reduces waste at Siepro and simultaneously increases profit margins. With 20000 to 30000 stickers per day, this is an important topic for the company!

The nesting technology in the suite allows us to place complex shapes in such a way that we have not only reduced manpower, but also significantly reduced waste and cutting times," explains Michael Hiemann. "If an order had been printed ten meters before, it's now only nine!" This creates space for new print jobs. Depending on the production processes in the company, the optimization process for nesting is carried out according to space considerations (leaving as little free space as possible) or according to deadline (nesting is completed at the latest point in time). Michael Hiemann. "If an order had been printed ten meters before, it's now only nine!" This creates space for

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**DATA AND WORKFLOW UNDER CONTROL.** The Wide Format Automation Suite is based on an automated prepress stage with preflight, color management, the creation of print marks and barcodes as well as normalization according to print requirements – integrated into the already mentioned workflow management system. As a rule, we already received 90% well prepared data, the remaining 10% had to be improved manually," says Michael Hiemann. The PDF 2.0 compliant suite now takes care of all this. In view of the expected growth rate of Siepro in online printing, which will certainly be accompanied by a deteriorating data base, this is reassuring for the efficiency of the special printer.

And the close cooperation with OneVision continues for Siepro! Other topics are currently being worked on, including a barcode integration for Zünd. And Michael Hiemann has discovered an interesting printing substrate on the market which he would like to offer: There's a new window film that I can put on glass. It's not an adhesive film, it's working with a silicone film on the back." It looks like as if a 41st production line will soon have to be installed in the system at Siepro.

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*Author: Michael Schüle*