

**Bischof + Klein GmbH & Co. KG**

# Significant savings



**Much reduced ink wastage, shorter set-up times and optimized ink preparation processes: the OSC team of Siegwerk Druckfarben AG & Co. KGaA joined forces with flexible specialists Bischof + Klein to exceed expectations. Bischof + Klein has substantial benefits from the improvements and is implementing knowledge gained in other corporate areas.**

The final results are unequivocal: savings of more than half a million Euros over a period of two years in ink preparation, liquid waste volumes down by 44 per cent to date, overall set-up times for gravure cut by 11 per cent and for flexo-printing by 13 per cent. Management at Bischof + Klein is totally satisfied with the two projects realized by the Siegwerk On-Site Consulting (OSC) team for B+K, a customer of long standing. The experts first took an in-depth look at the structures and processes of ink preparation and at the set-up procedures for gravure and then suggested measures for optimization. Claus Biller, in charge of foil finishing at Bischof + Klein: "The results of this project with Siegwerk go beyond our expectations - this kind of cooperation is fun." Bischof + Klein (B+K) is famed in Europe as one of the leading full service suppliers

of flexible packaging made of plastics and paper, as well as technical foils. The company is domiciled in Lengerich and operates six production sites in Germany, France, Great Britain, Poland and Saudi Arabia with 2300 employees.

#### Different standards

The main challenges at B+K included different standards as applied in ink preparation and in the print shop when assessing the quality of the prepared inks, explains Michael Bosse, manager of B+K's print operations. The consequence was a high level of ink wastage. Michael Bosse and Claus Biller thought there were savings to be made and so they didn't hesitate when their ink supplier made a consulting offer: to send an On-Site Consulting team to Lengerich. Agreement was quickly rea-

ched and the OSC team soon delivered its first audit. This audit was enough for the Siegwirk experts to map out “significant saving potentials”, say Sascha Kurth and Frank Dauth, Siegwirk’s OSC project managers. Bischof + Klein were generating more than eight kilograms of ink and solvent wastage per printing unit: the target was to reduce this to four kg. The audit also indicated that the set-up procedures at B+K were open to improvement – resulting in the creation of a second part-project. Michael Bosse saw the work of the external OSC team as positive from the start: “Having an external and objective viewpoint together with comparative indus-



try values is extremely useful.” When the first figures were presented, “it was quickly obvious which economic significance optimizing inks has for the entire workflow.” The project group then focussed on measures to improve ink preparation: using one of Siegwirk’s own database tools, the waste volumes were initially recorded and documented in order to identify waste streams. These data provided key indicators of where the waste was coming from, and reasons for its disposal. The Siegwirk experts established justification categories for wastage

streams and applied very specific leverage: the number of justifications was reduced.

### Standardized return inks

At the same time, return ink standardization was introduced. This is a well functioning process at many Siegwirk clients. B+K now has just five standardized return inks and their use “functions extremely well,” says Michael Bosse, print shop manager. A further key element of the new processes is a new output control for ink preparation. Each ink delivery to the print shop is now checked and recorded by B+K. This provides security for both parties – the ink experts and the printers, explains Michael Bosse: “Both sides now have the same robust facts upon which to base their arguments when there are differences of opinion about quality.”

### Sense of responsibility

In Michael Bosse’s opinion, staff in ink preparation and the print shop quickly adjusted to the new processes. Although the organization is leaner now, that also produces advantages: “The sense of responsibility has increased markedly on both sides.” Although some staff were initially a little reserved about the projects, “as soon as they saw that definite progress was being made they all began to pull together,” says Michael Bosse.

### Surprised about set-up times

The same applies to the set-up time optimization process for gravure. Here again, many were surprised after the project team completed their first status quo analysis of one of the print presses. A time and motion study in the set-up workshop using video cameras quickly made clear that tools and



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materials were not best positioned, and that a printer had to walk more than two kilometres per set-up procedure. “An impressive figure”, says Sascha Adels, pre-press group leader for flexo-print consumer packaging at B+K and in charge of the set-up time project. A bundle of measures is now targeting the cutting of set-up times. Optimizing ink preparation was a key step in achieving better results in ink set-up times.

### 33% time saving

The project team was able to improve mechanical set-up times by adapting work preparation: this included general LEAN measures such as cleanliness and orderliness, centralization of maintenance and set-up area restructuring. As Sascha Adels says: “Set-up areas are places where one can save a great deal of money.” The new procedure at B+K is for one person to be responsible for setting up and washing. A 33 per cent time saving was achieved thanks Siegwerk’s suggestion to have clean trolleys ready in the corridor when setting up a machine. And finally, the Siegwerk experts also recommended that B+K should replace the existing washing machine because of insufficient capacity. Sascha Adels: “We responded by installing two new washing machines, a move which amortized itself within a very short time.” The results of the OSC project at B+K far exceeded all expectations. During 2010, the first project year, the volume of wastage was reduced to 57 per cent and in 2011 the 44 per cent mark was reached; in 2012 the wastage is to be further cut to just 40 per cent of the original volume. In quantitative terms, B+K reduced its wastage to three kilograms per print unit during the second year of the project, bettering the target

of four kg. In monetary terms, more than half a million Euros were saved in the first two-year period by Bischof + Klein simply from not throwing ink away. And the results achieved for the set-up times, of minus 11% and minus 13% “are a huge benefit”, says Adels. Sascha Adels, Michael Bosse and Claus Biller therefore have nothing but praise for the work of their external consultants: “The OSC experts from Siegwerk focused on the issues “competently, constructively and openly” to the benefit of B+K, we never had the feeling that they were working with the interests of a supplier in mind, comments Michael Bosse.

### Processing is next

The measures suggested by OSC are having a long term impact at B+K: ink streams used in their operation are still recorded using the Siegwerk tool, soon to be replaced with a barcode system. In a follow-on project, B+K is currently further optimizing its set-up areas.



Processing is next in line. Thanks to the OSC project we now have methodological competence which can also be applied to other areas, says Sascha Adels. “We have definitely been infected by the process-optimization virus.”





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