



Raffael Kuhn

## From the black box to the multifunctional SigmaLine III

**The world premiere SigmaLine, which was presented with a bang at drupa 2004, has been continuously developed by Muller Martini and is now a multifunctional digital book block solution. A pre-gathering function and a mode for dynamic trimming have also been integrated.**

Which of you still remembers the world premiere in 2004 – presented at the drupa stand of Muller Martini? Back then, the SigmaLine was presented to visitors in a kind of black box as a unique and innovative total solution for Book on Demand. I myself was only in 6th class at the time, but my colleagues told me that the limited tickets for the demonstrations were in great demand. The huge interest confirmed that we were right on target with this innovative solution. Many customers recognized early on that the SigmaLine produced the increasingly frequent short runs economically and opened up prospects for new business models. The first SigmaLine was then sold directly at the drupa stand and put into operation in North America.



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### **New Business Models**

Whereas the first version of the SigmaLine was used exclusively with single-color digital presses, the printing systems have made enormous progress over the years. Today, the quality is digital, and products printed in color can hardly be distinguished from those produced by other printing processes. What is still the same as in the past: exciting business models are emerging daily in this incredibly agile market segment that meet the trend towards shorter runs and flexible, individual or personalized productions – from publishing as well as self-publishing.

### **Second development step**

To keep pace with these developments, the SigmaLine has been continuously enhanced. The introduction of the variable [SigmaFolder II](#) opened up a wealth of new possibilities for our customers. Since 2014, in addition to the then already established applications in the 42 to 60-inch range, this machine has also been processing web widths in the 20 to 30-inch range – as well as any gradation in between. Thanks to the modular construction kit system, it was possible to choose from various elements such as split & merge, different former folds, cross-cutting, cross-fold and sword fold modules.

After our customer Webcrafters in Madison, the capital of the U.S. state of Wisconsin, had already invested in a SigmaLine in 2011, three years later they decided to install a second line with the new Sigma Folder II. John Filsinger, Executive Vice President & Chief Operations Officer of Webcrafters said: „As print runs continue to decline, we need a second system to meet the increasing demand for digitally printed products in shorter runs. The SigmaLine II has been running 20 to 35 percent faster than the first since day one. But Muller Martini is offering us upgrades for the first SigmaLine, which will boost performance“.

### **Connex Integration**

Incidentally, the [Connex](#) workflow system has always been an integral part of all SigmaLine configurations and forms the backbone of every digital print production. It includes an automatic impositioning process and links this with digital printing and finishing. Connex controls and monitors all the processes required for production and thus offers a continuous workflow from PDF to the finished print product at the highest level of automation.

The level of automation of the book block solution, which is unique on the market, also remains high. This means it can be adapted to new market challenges at any time. And virtually no manual intervention is required – Finishing 4.0 at its best.

### **SigmaLine III – the latest generation**

With this large backpack of experience, we are now ready for our customers with the latest SigmaLine III. We have again integrated the features currently demanded by the market into this current machine generation. The SigmaLine III now enables variable folding and a dynamic cutting mode.

The highlight for me is quite clearly the innovative air knife technology. Previously, folding on the SigmaLine was done with a mechanical blade. Now the fold is triggered by an air pressure impulse. Thanks to the air knife, production is much more stable at high speeds. The fold is more perfect and there are fewer stoppers. We can therefore produce much faster: at up to 1000 feet or 305 meters per minute. This is the highest output of digitally produced book blocks on the market.

Thanks to its variability, the air knife technology also offers extended production possibilities. Several signatures can be pre-collected in the longitudinal folder before being folded together. This allows several separate signatures to be combined into a single signature. For example, three 8-page signatures can be turned into one 24-page signature – an ideal pre-product for thread or saddle stitching. This multifunctional application thus gives our customers a much higher level of investment protection.

Another great new feature is the dynamic trimming mode. Previously, the cutting/perforating/cutting process always resulted in a cross fold. Now the SigmaLine III can cut twice in succession. This means that the cross fold can be bypassed. Thanks to the dynamic mode, the page divisibility of the book blocks can now be halved so that there are fewer blank pages. Previously, it was possible for a 16-sheet to have up to 15 empty pages. Now there are 8-sheet books with a maximum of 7 empty pages.

### **Your investment is protected**

Besides all the new features you need to know the following: Like its predecessor models, the SigmaLine III has a very high level of integration with digital web presses. In the rapidly evolving environment with shorter life cycles of digital presses, the book block solution fully exploits its open concept with the Generic Digital Press Interface. So, if you are also looking for a suitable finishing solution for your digital print production, I can warmly recommend the SigmaLine III.

Sincerely,  
Your Raffael Kuhn  
Product Manager Digital Solutions Muller Martini

*PS: In this [news](#) you can read how our American customer Core Publishing, which belongs to the Thomson Reuters Group, is optimizing its book production with the new SigmaLine III.*