



Ingolf Fritzsche

Muller Martini Sets New Standards with the SigmaLine Compact

With the new SigmaLine Compact from Muller Martini, digital print shops benefit from one of the most flexible and innovative solutions that can be installed in the smallest of spaces. In the production of books, brochures and magazines, Finishing 4.0 thus meets sustainability.

When you hear the word SigmaLine, many of you automatically think of drupa 2004, because a good 19 years ago, Muller Martini presented a unique and innovative total solution for book-on-demand production as a world premiere. I was not yet at Muller Martini at that time. But many of my colleagues today have told me that the limited tickets for the SigmaLine demonstrations were in great demand.

The huge interest confirmed to us that we had already struck a chord with our innovative solution. Many of our customers recognized early on that the SigmaLine produced the ever-smaller runs economically and opened up prospects for new business models for them. The first SigmaLine was sold directly at the drupa booth and went into operation in North America.

From the SigmaLine to the SigmaFolder II and the SigmaLine III...

It's been a long time – and digital book production has changed rapidly over the past two decades. While the first SigmaLine exclusively used single-color digital presses, printing systems have made enormous progress in terms of print quality over the years. To keep pace with this, the SigmaLine has been continuously developed. A bouquet of new possibilities was opened up in 2014 with the introduction of the variable SigmaFolder II, which, in addition

to the then already established applications in the 42- to maximum 60-inch range, also processed web widths in the 20- to 30-inch range – and any gradation in between.

Thanks to the modular construction system, it was possible to choose from various elements such as split & merge, different former folds, cross-cutting, cross-folding and sword fold modules. In 2020, we launched the SigmaLine III, which now enables variable folding and a dynamic mode for cutting – with the innovative air knife technology patented by Muller Martini as a technological highlight. Folding was stabilized and sheets could be collated into a signature. The production speed of up to 1000 feet or 305 meters per minute allows the highest output of digitally produced book blocks on the market.

...towards the SigmaLine Compact

Now, as a logical further development of its predecessor models, comes the SigmaLine Compact. With it, Muller Martini is setting a further milestone in digital book block production. Designed for processing digitally printed rolls of up to 22.5 inches, the SigmaLine Compact is the perfect solution for any digital printer who produces pre-products for softcover, hardcover, thread-sewn and saddle-stitched print products in their Smart Factory. By covering all postpress options. It sets new standards in terms of flexibility and, in conjunction with our [Connex workflow system](#), takes Finishing 4.0 – as we call our finishing strategy in reference to Industry 4.0 – to a new level.

Connex is particularly important in this context. Connex is the workflow system developed by Muller Martini that has always been an integral part of all SigmaLine configurations and the backbone of any digital print production. Connex ensures a completely automated production flow without manual intervention from prepress (keyword automatic imposition process) to the end-product. Digital printers therefore produce more books and/or brochures per shift with fewer staff, giving them a significant economic advantage – this is Smart Factory in action.

Unique in the market

The highlight of the SigmaLine Compact is the folding process. While all known digital folders work with a sword, former or plow fold unit, the SigmaLine Compact uses Muller Martini's patented air knife technology for signature production. We have continuously improved air fold technology in recent years and use the same technology in the 22.5-inch line as in the high-speed area of the SigmaLine III. In this respect, the SigmaLine Compact is unique on the market.

The SigmaLine Compact is particularly impressive thanks to its minimal changeover times. For example, it takes less than ten seconds to change the folding scheme from two-up to three-up. It therefore not only sets new standards in terms of simpler operation and lower maintenance, but also increases productivity and significantly reduces make-ready and changeover waste.

The fact that less than ten meters of waste is generated when the folding scheme is changed is one of the most important arguments in view of the current high material and energy prices. In addition, it requires a production area of just 40 square meters. Like its predecessors, the SigmaLine Compact features a very high level of integration with a wide range of digital web presses.

Adapted to the digital printing and publishing market

The SigmaLine Compact is perfectly suited for all digital web presses up to a roll width of 571 mm (22.5"). In the joint partner meetings with the digital press manufacturers, we had

adapted the further development to the digital printing and publishing market.

Another advantage is that the SigmaLine Compact does not reduce the web speed of the paper if, for example, the fold catalog or the cut-off length is changed. All changes are made at the calibrated speed of the digital press. This means that no additional paper is needed for the calibrations or speed adjustments. This advancement alone saves printers unnecessary service and maintenance time, and we minimize production downtime.

I have been in contact with our partners in the digital printing industry for years and know that companies active in digital printing are waiting for this and other innovations – there is no question about it.

Or do you still have questions? Then contact [me](#) and I will be happy to answer them.

Key figures of the SigmaLine Compact

- **Roll width:** from 11 to 22.5 inches (571 mm)
- **Production speed:** up to 650 feet (200 m/min)
- **Changeover times for a folding catalog change:** less than 10 seconds
- **White paper during changeover process:** between 5 and max. 10 m
- **Production area:** 40 m²

Yours,
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