

Digital Solutions

SigmaLine III



Flexible book block solution from 18" to 42"

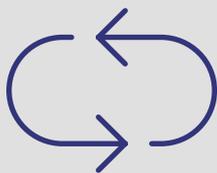
The SigmaLine III is the ideal solution for processing paper from digital web printing systems. The high-performance system can produce single signatures, pre-gathered book blocks as well as pre-gathered signatures.

The SigmaLine III is characterized by a unique flexibility and a high degree of automation. With the multi-feature system, intermediate products for book production, saddle stitching or thread sewing can be produced accordingly up to run length of 1. It also excels with minimum changeover times between format- or job changes as well as minimal personnel requirements for operating the line.

With its maximum mechanical output of up to 1000 feet per minute (305 m/min) it enables the highest possible output of digitally produced book blocks on the market. The SigmaLine III can be integrated to a various number of digital presses and comes with an included imposing tool that manages the pre-press stage.



HIGHLIGHTS



On-the-fly

Cut-off changes
Folding scheme changes
Production possibilities
without interruption



Variable Data Printing

Many full variable
production possibilities



Imposition

Automated on-the-fly
PDF imposition for each job

Your **strong partner.**

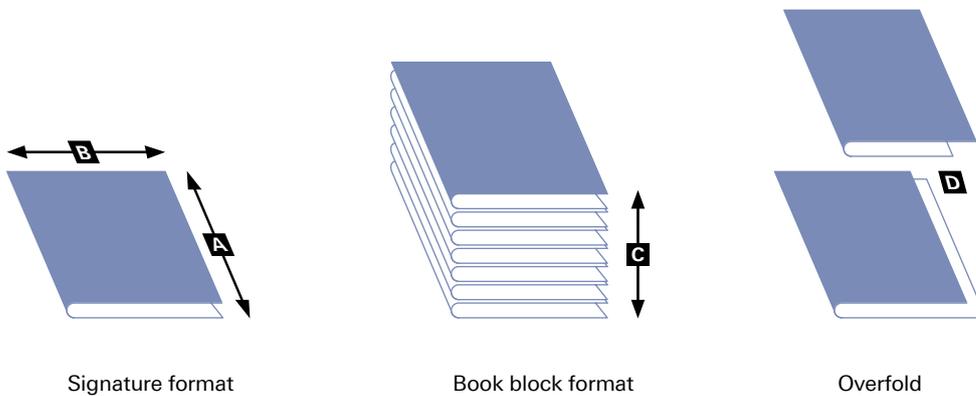
MÜLLER MARTINI

TECHNICAL DATA

Machine Speed	Paper speed	max	305 m/min (1'000 fpm)
	Signatures	max	36'000 cycles/h
	Book Blocks	max	4'000 cycles/h
Paper characteristics	Grammage	min	40 g/m2
		max	135 g/m2
	Thickness	min	0.05 mm
		max	0.2 mm
Signature format		A	B
		min	140 mm (5 1/2")
	max	340 mm (13 3/8")	286 mm (11 1/4")
	Thickness	min	0.15 mm (0 1/70")
		max	4 mm (0 3/16")
	Optional overfold (D)	max	10 mm (0 3/8")
	Optional gluing	Recommended head and foot trim	8 mm (0 3/8")
Book block format	Thickness (C)	min	7 Signatures at full speed*
		max	100 mm (4")

* Values above only represent max. mechanical values. Max. possible production speed is depending on paper characteristics, folding scheme, cut length, color application on the paper and paper condition after the digital press.

PRODUCTS



IMPOSITION REQUIREMENTS

The SigmaLine requires a defined space for barcodes on each signature for identification and orientation purpose.

Barcode Specifications:

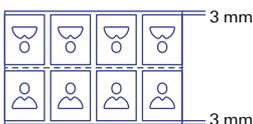
Barcode Layout



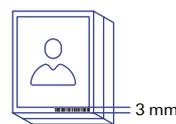
Description: The defined space beside the barcode shown above must be blank.

Layout Specification:

Signature



Book Block

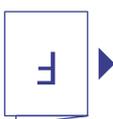


Additional Codes:

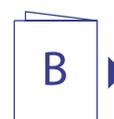
Other additional Codes (Cover Matching, quality checkmarks etc.) can be positioned to the customers requirements, unless it affects any specifications shown above. Any additional barcode require a defined space and therefore additional trim-off might be necessary. Depending on the Digital Printing Machine, extra space for quality bar might be required.

Product orientation at the outfeed:

Front page facing up



Bottom page facing up



* Above shown requirements are defined for SigmaLine only. Other systems within the production process might require additional barcodes or restrictions and must be specified in advance.

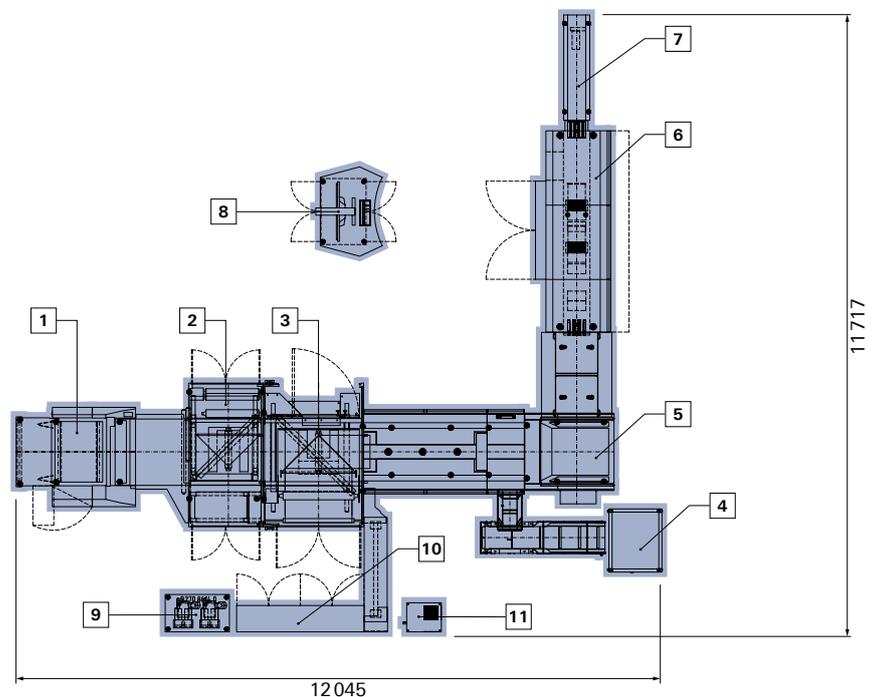
CONFIGURATIONS AND OPTIONS

Configurations	Folding schemes	Web width	
572 mm (22.5")	2-across	min	460mm (18.1")
		max	572 mm (22.5")
762 mm (30")	2-, 3-, 4-across	min	460 mm* (18.1")
		max	762 mm (30")
1067 mm (42")	2-, 3-, 4-, 5-, 6-, 7-, 8-across	min	460 mm* (18.1")
		max	1067 mm (42")
Press integration	Integration possibilities to different digital press vendors		
Optional features	JDF GrayBox, MIS interface integration for job data exchange		
	Variable Data Printing (VDP) functionality		
	Water scoring for closed spine		
	Workbook Perforation static or dynamic		
	Waste conveyor at SigmaFolder		
	Gathering function for nested signatures		

* Smaller format could have influence on web tension; must be verified first.

LAYOUT

- 1 Web buffer
- 2 Second former
- 3 Main former
- 4 Waste conveyor
- 5 SigmaFolder
- 6 SigmaCollator
- 7 Slip-Torque conveyor
- 8 SigmaControl
- 9 Air Center
- 10 Control Cabinet
- 11 Water cooling unit



SUPPLY VALUES

Electrical	Voltage	3 x 400 V AC 50/60Hz	
	Consumption	SigmaControl	2 kVA
		SigmaFolder III (incl. air center)	40 kVA
SigmaCollator		7 kVA	
Compressed Air	Pressure	6 bar / 87 psi	
	Consumption	SigmaFolder III	90 Nm ³ /h (54 cfm)
		SigmaCollator	15Nm ³ /h (9 cfm)

* Maximal values shown above, effective consumption is depending on web width, paper weight and folding scheme.

AMBIENT CONDITIONS

Temperature	Ambient temperature	Condition	Temperature range
	Operation*		+ 20 to + 40 [°C]
	Storage transport	Long-term	-25 to +55 [°C]
		Short-term <24 [h]	-25 to +70 [°C]
	Suggested operating range		+20 to +25 [°C]
Air Humidity	Relative Humidity	Condition	Humidity Range
	Non-condensing	max +35 [°C]	max 50%
	Higher relative humidity is acceptable only at lower temperatures	For example, at 20 [°C]	max 90%
	Suggested operating range		40 to 50%

* An air conditioning unit (optional) must be used for operating temperatures of 35° C or higher.

Connex

Networking processes, connecting systems, showing production states, integrating machines in business processes – the Connex workflow solution is the answer to new requirements in a Smart Factory. Utilizing a modular system of standard modules allows highly customized applications, optimized for individual purpose.

Connex. Info

Dynamic production planning and continuous process optimization for shortest throughput times requires realtime production data of the shop floor. Connex.Info collects and visualizes machine states, production performance and job progress and forwards essential information to management information systems using standard interfaces.

Connex LineControl

Shorter job run lengths and an increasing number of jobs necessitate electronic support of the classic slip sheet. Connex LineControl interconnects production equipment with higher-level systems via standard interfaces and enables automatic presetting of the machines based on digital Job tickets. Minimizing manual data input saves time and reduces sources of errors, what significantly increases overall production performance.

MM SERVICES



MMSTARTUP

- Project management – comprehensive consultation for all needs
- Installation and commissioning – for a high level of process reliability right
- Machine relocations



MMSUPPORT

- Telephone support – 24/7 access to our technical hotline and spare parts
- Repair service – carried out professionally
- Remote services – efficient online troubleshooting



MMPARTS

- Spare parts – high availability at your local service center and quick access to all Muller Martini spare parts in the plants



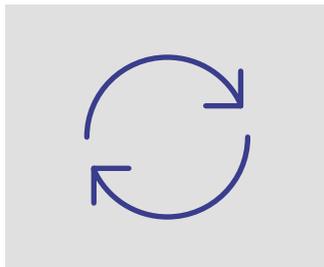
MMINSPECT

- Inspection – comprehensive analysis and extensive function testing
- Maintenance – regular, proactive maintenance pays off



MMIMPROVE

- Training – professional training at the Muller Martini training centers
- Production support – consultation on efficiency-enhancing programs



MMUPTODATE

- Updates – long-lasting efficiency and productivity
- Retrofits and extensions – to keep you competitive



MMSELECT

- Customized service contracts – efficient life cycle management to ensure the high reliability and uptime of your equipment



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