

Perfect binder Alegro



Finishing 4.0 with Motion Control

The market for perfect bound products is changing. Runs for print products made on traditional offset presses are becoming increasingly smaller. At the same time, print runs in digital printing are on the rise, requiring the right technology in finishing. The requirements for perfect binding machines in the mid-performance range are therefore quite diverse. On the one hand, the jobs must be processed efficiently and cost-effectively, and on the other hand, it is essential to have a wide range of applications in print finishing. The Alegro Perfect Binder with the innovative Motion Control Technology meets these high demands. It enables the shortest job-processing times for increased profitability. At the same time, it forms the basis for a very wide range of applications in which the Alegro stands out with its special sizes and production methods. The machine concept is extremely flexible and can be adapted to changing requirements. With its full automation and networking function, the Alegro is well-equipped for the demands of conventional print finishing and digital printing.



HIGHLIGHTS



Top quality

Stations with individual drives with servo technology, e.g. inside the pressing station, ensure perfect binding quality



Wide range of application

Large format range, cold glue, EVA, PUR, two-shot, covers with flaps, layflat brochures, Offset-, digital and hybrid application etc.



Less maintenance

Thanks to the reduction of mechanical components such as shafts, gears and chains

Your **strong partner.**

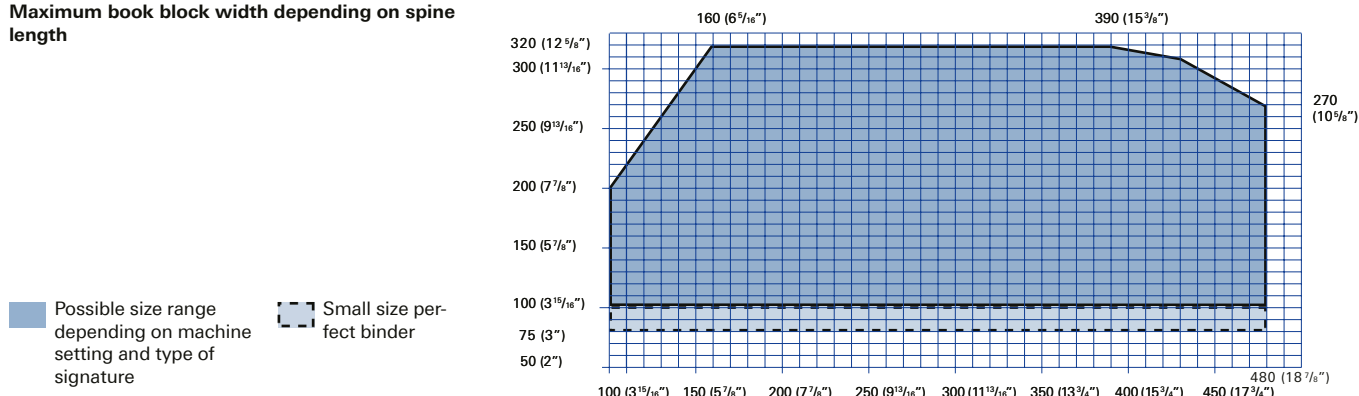
MÜLLER MARTINI

TECHNICAL DATA

Machine speed*	Mechanical speed Alegro	1 200 - 7 000 cycles/h (with ZTM 3694)
	Mechanical speed Alegro	1 200 - 6 000 cycles/h (with ZTM 3692)
	Mechanical speed Alegro Digital**	1 200 - 5 000 cycles/h
Clamps	Numbers of clamps	19 or 27
	Clamp pitch	24"
	Maximum clamp opening	90 mm (3 9/16")

Book block size			Alegro Standard	Alegro Small size	Alegro Digital
Height	min.		100 mm (3 15/16")	100 mm (3 15/16")	100 mm (3 15/16")
	max.		480 ¹⁾ mm (18 7/8") ¹⁾	480 ¹⁾ mm (18 7/8") ¹⁾	450 mm (17 3/4")
Width	min.		100 (75) ²⁾ mm (3 15/16") (3") ²⁾	75 mm (3")	100 mm (3 15/16")
	max.		320 mm (12 5/8")	320 mm (12 5/8")	320 mm (12 5/8")
Thickness	min.		1 ³⁾ mm (0 1/16") ³⁾	1 ³⁾ mm (0 1/16") ³⁾	1 ³⁾ mm (0 1/16") ³⁾
	max.		65 ⁴⁾ mm (2 9/16") ⁴⁾	65 ⁴⁾ mm (2 9/16") ⁴⁾	65 ⁴⁾ mm (2 9/16") ⁴⁾
Grammage	Body paper	min.	28 gsm	28 gsm	28 gsm
		max.	240 gsm	240 gsm	240 gsm

Maximum book block width depending on spine length



Cover size			Alegro Standard	Alegro Small size	Alegro Digital
Height	min.		100 mm (3 15/16")	100 mm (3 15/16")	100 mm (3 15/16")
	max.		480 ¹⁾ mm (18 7/8") ¹⁾	480 ¹⁾ mm (18 7/8") ¹⁾	450 mm (17 3/4")
Width (open)	min.		201 mm (7 15/16")	151 mm (5 15/16")	237 mm ⁵⁾ (9 5/16") ⁵⁾
	max.		705 mm (27 3/4") ⁷⁾	705 mm (27 3/4") ⁷⁾	705 mm (27 3/4")
Grammage	Cover paper	min.	90 gsm	90 gsm	90 gsm
		max.	450 ⁶⁾ gsm	450 ⁶⁾ gsm	450 ⁶⁾ gsm

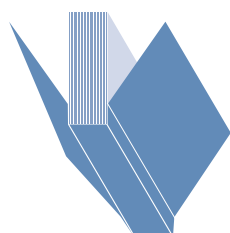
Spine preparation station	Milling depth	0 - 4 mm (0 - 0 3/16") (Shredder head) 0 - 6 mm (0 - 0 1/4") (Dust cutter)
Drum cover feeder	Pile height	max. 200 mm (7 7/8") (depending on material)
	Scoring	2 or 4 or 6 times scoring (depending on equipment level)
Book hang-out		7 - 17 mm (0 1/4 - 0 11/16")

* The maximum possible net output depends on several parameters. The characteristics of the paper being processed – such as the paper texture, the grammage, the folding quality, the electrostatic behavior and the size – affect product processing as do environmental factors, the expertise of the machine operator, etc.

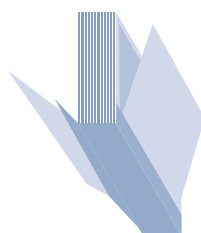
** Thickness variation from clamp to clamp max. 6.5 mm

1) With gate folding station 460 mm (18 1/8"), 2) Book block without cover, 3) 1 mm (0 1/16") without scoring, 3 mm (0 1/8") with scoring, 4) With small size kit the maximum block thickness is 62 mm (2 7/16"), 5) Cover leg width minimal 118 mm (4 5/8"), 6) Stream cover feeder and wide drum cover feeder 100 - 350 gsm, 7) When using a shingle feeder, the maximum cover width is 642 mm (25 1/4") and the maximum cover leg width is 305 mm (12 ").

PRODUCTS



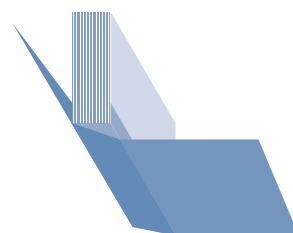
Softcover
book



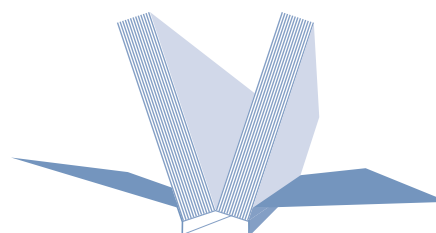
Hardcover
book block



Flex
brochures



Lay flat brochures
Swiss



Lay flat brochures
Otobind

BARCODE DATA

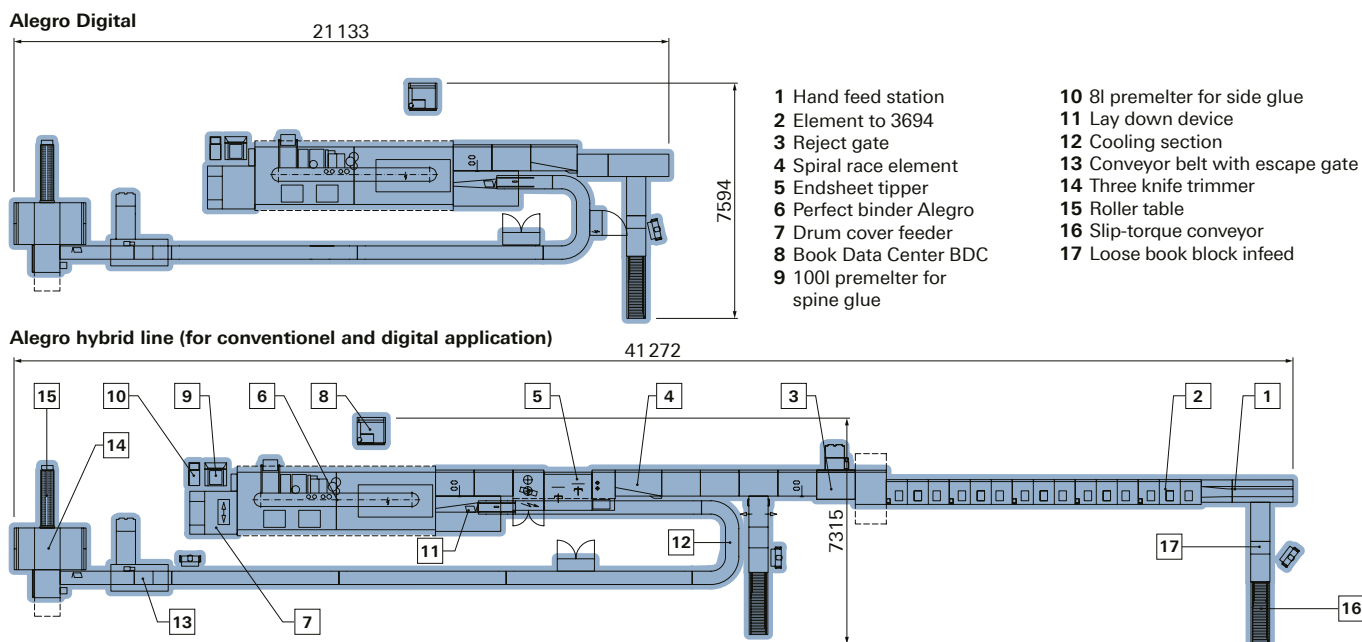
The following parameters can be encrypted in the barcode
Job-ID
Setup-ID (includes the Format-ID and the Book block thickness)

Supported barcode type
1D Barcodes (Code 128)

CONFIGURATIONS AND OPTIONS

Configurations	Inline with gathering machine and downstream with a customer specific cooling line into a three knife trimmer Digital package with Block thickness variable workflow and Touchless Workflow	
Optional features	Drum gathering machine 3692 (6000 c/h) / 3694 (7000 c/h)	PUR roller system, interchangeable via trolley
	Timed infeed BSZ 3720 for book blocks (Alegro Digital)	PUR nozzle system, interchangeable via trolley
	Reject device 3715 / 3717	Glue application control for PUR nozzle system
	Criss cross delivery 3635 / Universo 3644	Various premelters
	Book block feeder BBA 3642 (with Autoload as option)	Cross feed mull station
	Endsheet feeder A461	2nd pressing station
	BDC – book data center	Drum cover feeder wide with gate fold device
	Hotmelt roller system, interchangeable via trolley	Stream cover feeder
	Cold glue roller system, interchangeable via trolley	Diverse quality controls like block width control, block thickness control, barcode and imaging recognition system

LAYOUT



UTILITY REQUIREMENTS

Electrical	Main control cabinet operating voltage	400 V ± 10%, 50/60 Hz, 3 PH + PE
Pneumatical	Hotmelt premelter side gluing station	Compressed air
		4 Nm³/h 6 bar (2.4 cfm / 87 psi) (unoiled, cleaned)
	PUR premelter RobaPUR 2 MOD	Compressed air
		1 Nm³/h 6 bar (0.6 cfm / 87 psi)
	PUR premelter MOD 35/40	Compressed air
		0.4 Nm³/h 6 bar (0.24 cfm / 87 psi)
	Mull station	Compressed air
		60 Nm³/h 6 bar (36 cfm / 87 psi)
		Vacuum
Exhaust		32 Nm³/h 60% (18.8 cfm / 60%)
	Drum cover feeder	Compressed air
		20 Nm³/h 6 bar (12 cfm / 87 psi)
		Vacuum
		20 Nm³/h 60% (12 cfm / 60%)
	Stream cover feeder	Compressed air
		36 Nm³/h 6 bar (21.6 cfm / 87 psi)
		Vacuum
		20 Nm³/h 60% (12 cfm / 60%)
Weight	Milling station	Air volume
		1500 m³/h (885 cfm)
		Low pressure air
		min. 1500 Pa (6")
	Spine preparation per exhaust manifold	Air volume
		500 m³/h (295 cfm)
		Low pressure air
		min. 1800 Pa (7.2")
Exhaust	Brush station	Air volume
		700 m³/h (413 cfm)
		Low pressure air
		min. 1500 Pa (6")
Exhaust	Gluing station / IR-drying per exhaust manifold	Air volume
		1200 m³/h (708 cfm)
		Low pressure air
		min. 150 Pa (0.6")
Weight	Basic machine	7.150 kg

Subject to dimensional, construction and equipment changes

AMBIENT CONDITIONS

Temperature	Ambient temperature	Condition	Temperature range
	Operation*		+5 to +35 [°C]
	Suggested operating range		+18 to +23 [°C]*
Air Humidity	Relative Humidity	Condition	Humidity Range
	Non-condensing	max +35 [°C]	max 50%
	Suggested operating range		40 to 50%

* Cooling equipment is required for temperatures of +35 [°C] and 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 Cloud

Connex Info Cloud enables you to produce your print products even more (cost)efficiently, to analyze your production in a targeted manner, to identify optimization potential for your production, and to increase your planning reliability. Because it is important to know which order is currently being produced where, how much has been produced and what the idle times, setup times or stop times look like.

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



MM STARTUP

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



MM SUPPORT

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



MM PARTS

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



MM INSPECT

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



MM IMPROVE

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



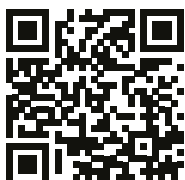
MM UPTODATE

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



MM SELECT

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



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