

Tigra

the ideal upgrade for efficient
perfect binding

MÜLLER MARTINI

Tigra – a cost effective perfect binding line with exceptional advantages for small to medium size operations

The Tigra is an efficient, compact perfect binder for use with in-line gathering machine Model 1571. The gathering machine assures efficient operation and very quick makeready. The perfect binder utilizes menu-guided controls for ease of operation and fast changeover. It produces high-quality books, magazines, catalogues and other adhesive bound products through a series of production steps: combination of milling/roughing of the spine, cam-controlled spine and side gluing, and accurate cover infeed and positioning. The Tigra Perfect Binder is the most efficient adhesive binding system for the entry-level to mid-range market.

Gathering machine



Criss-cross delivery (optional)



Hand feeding at the infeed



Hook clamp

Control panel



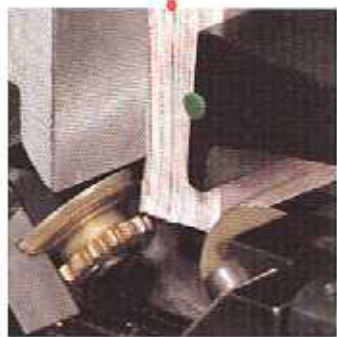
Delivery



Cover nipper



Spine preparation



Hotmelt side gluing



Hotmelt spine gluing



Cover feeder

The Gathering Machine 1571

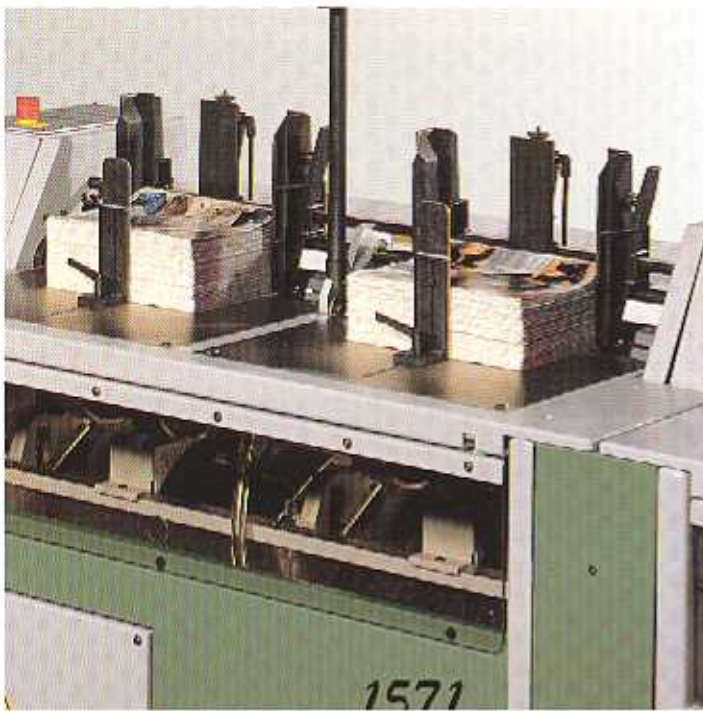
can be used for a wide range of sizes, from small books to A4 oblong, and a variety of paper stocks and types of signatures.

Sequential start-up maximizes productivity, since only complete book blocks enter the perfect binder.

ASAC (Automatic Self Adjusting Caliper) is standard, while ASIR (Automatic Signature Image Recognition) is offered as an option.

The gathering machine can be set up independently of the perfect binder and also operated separately by integrating an optional criss-cross delivery.

The optional set-up motor enables independent makeready of the gathering machine and the binder.



The feeder hoppers can be set up and changed over quickly and conveniently loaded from either side.



The hand feeding station allows easy feeding of pregathered book blocks. When no book block is fed, a sensor inhibits the feeding of downstream signatures from the gathering machine which assures reliable, efficient operation.



The Criss-Cross Delivery 1536

allows the use of the Tigra binding line for separate, simultaneous gathering and binding of two different jobs.

Low silhouette design enables convenient take-off of gathered sections.

The display on the console provides for easy supervision of the gathering operation and criss-cross delivery.

Tigra Binding System

Hand feeding at the infeed

of pregathered sections or sewn book blocks makes it easy to process very short runs and samples.

The straight-line infeed into the perfect binder has a built-in jogger.

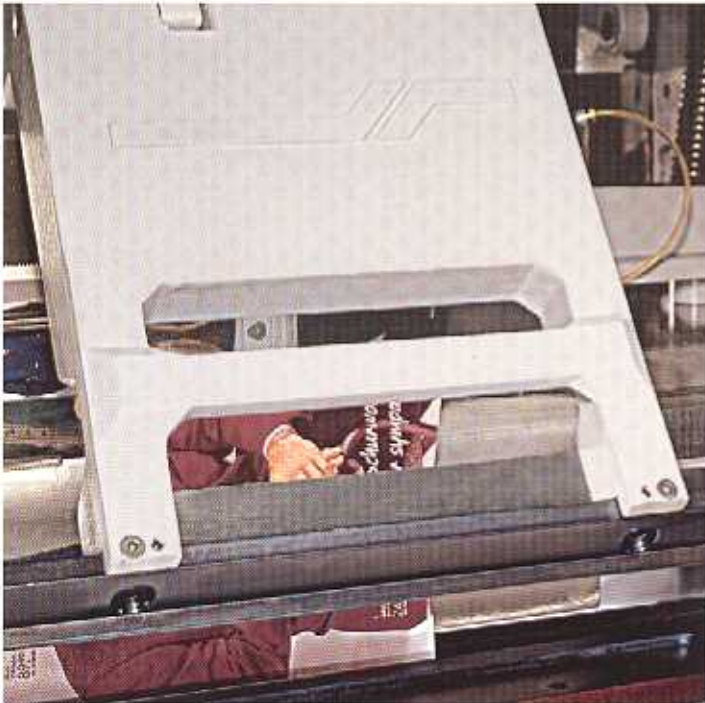
The leveling shelf is height-adjustable and settings can be selected on a scale.



The book clamp

automatically adjusts to any book thickness and applies uniform pressure to each book.

The closing of the clamps is achieved by Muller Martini's patented, cam-controlled design.



Milling/spine preparation station

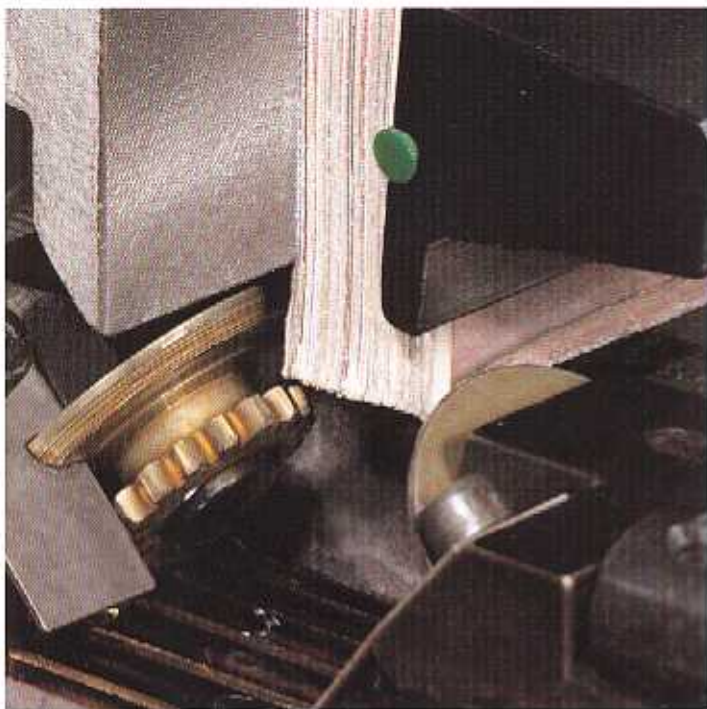
The pressing disc provides additional pressure to hold books securely in the clamps.

The book spine is prepared with individually replaceable milling knives and rougher/notcher blades.

The powerful exhaust removes paper chips and dust to assure superior binding quality.

For the processing of sewn products, the milling station can be quickly lowered.



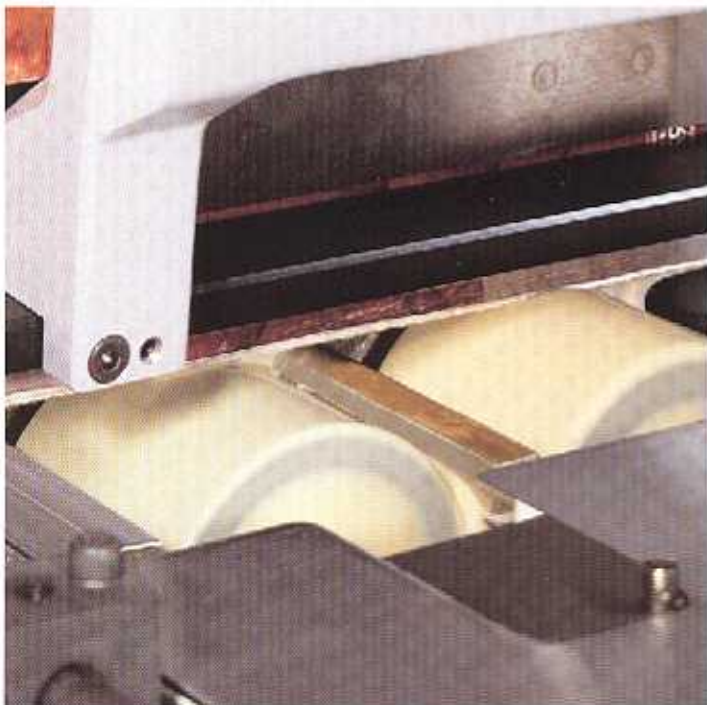


Hotmelt side gluing unit

has two driven applicator wheels which guarantee precise glue application. The glue length is adjustable from the control console for the production of books with short covers to prevent glue deposits in the machine downstream.

A built-in timer automatically switches on the glue pot heating prior to production start-up to ensure that the hotmelt is at the desired temperature when production starts.

For high-speed operations, a separate optional premelter is available which maintains a uniform glue level and temperature in the glue pot at all times.

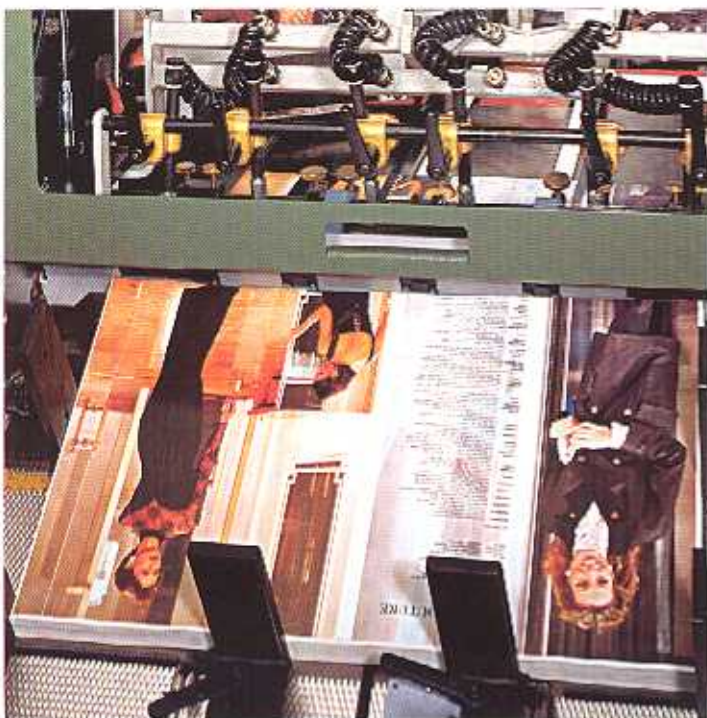


Hotmelt spine gluing station

is equipped with two applicator rollers and a counter rotating back-spinner. The back-spinner ensures precise, uniform glue application and superior binding quality.

The length of glue application is adjustable from the outside to process books with short covers and to prevent glue deposits on the machine downstream. Prior to production start-up, a built-in timer automatically switches on the heating of the glue pot, to ensure that the hotmelt is at the desired temperature when production starts.

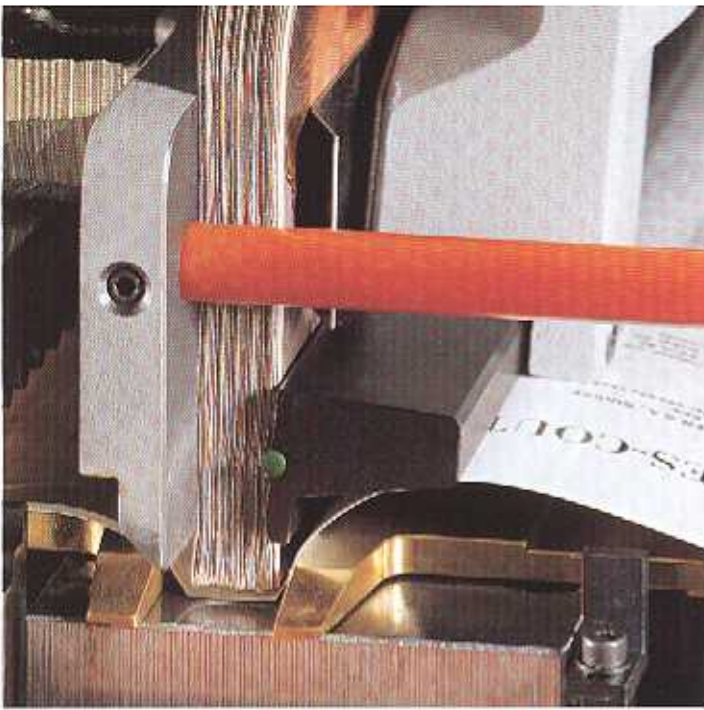
For high-speed operations and bulky books, a separate optional premelter is available which maintains a uniform glue level and temperature at all times.



The pile cover feeder

loads from the top and feeds from the bottom for continuous, non-stop operation.

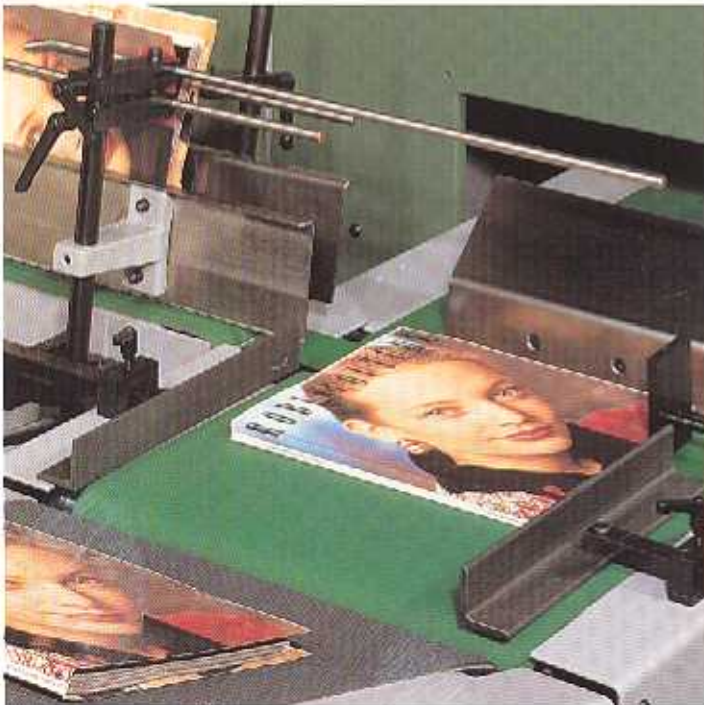
Scoring position and depth of the built-in two or four-line scoring devices are adjustable on the fly. The cover feeder can be quickly changed over without tools. Scales and digital displays are provided for precise adjustment.



The cover nipper

moves with the book. The heavy-duty design and cam-controlled pressing plates ensure square, tight backbones.

Accurate cover infeed and alignment guarantee cover register to within half a millimeter ($\pm 1/32''$).



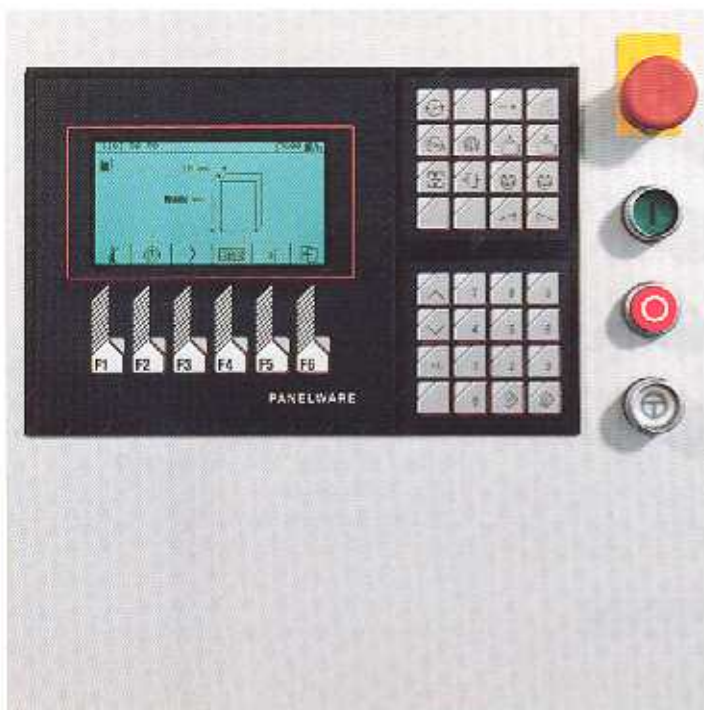
Delivery

Books exit the binder on their spines and are gently conveyed to the delivery.

The laydown device positions hotmelt-bound products for in-line processing through conveyors.

A packer-box delivery is available as an option for gentle stacking of cold glue-bound products on their spines.

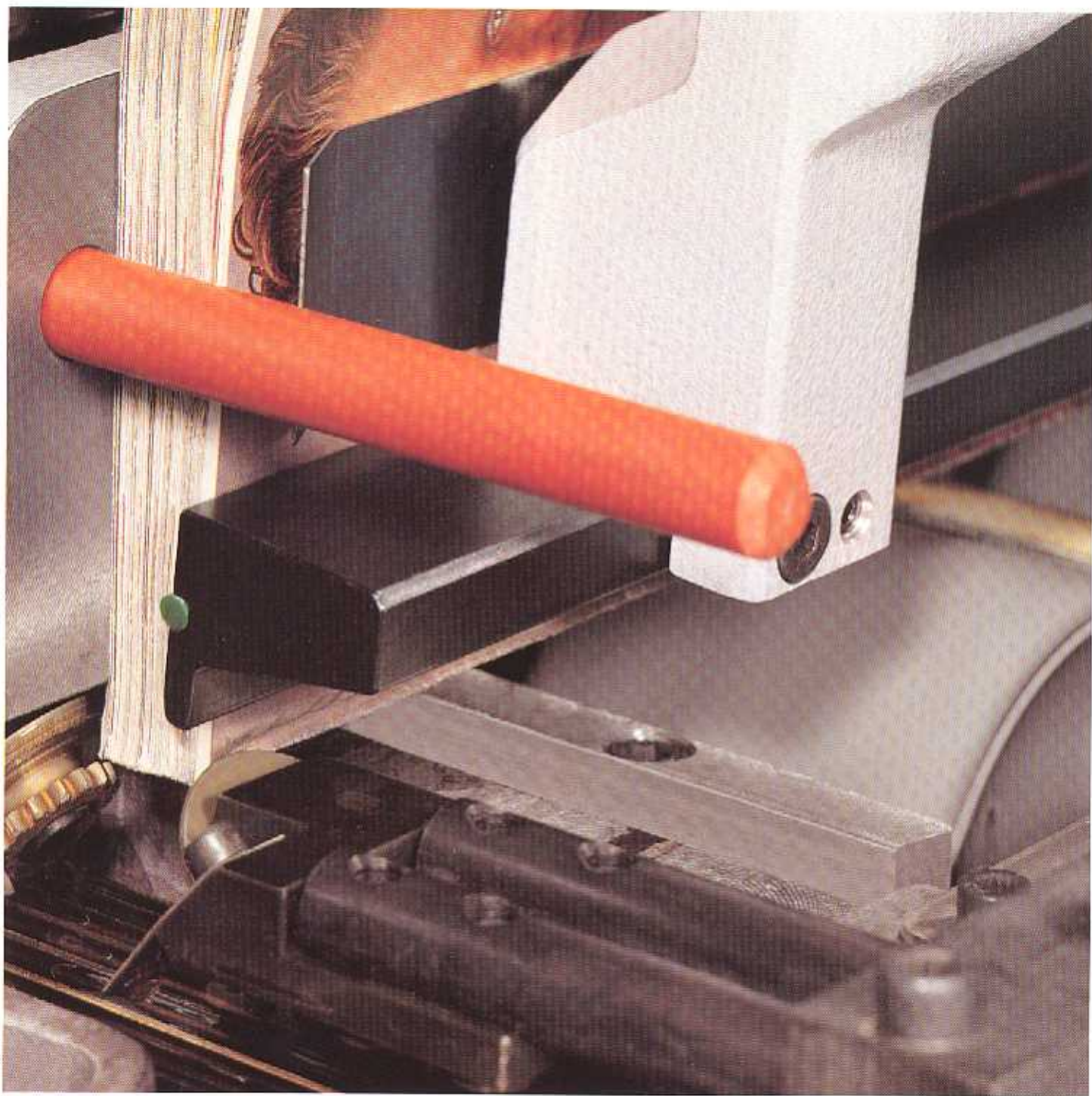
An optional bypass belt is also available for combined production of hotmelt and cold glue bound products.



PLC control system

assists the operator with menu-guided controls for quick changeover.

The control system displays production data and faults. It has self-diagnostic capability to detect open guards, or any switches or sensors which are activated.



Tigra Perfect Binding Line an efficient production system for small to medium runs

This brochure may show components which are not included in the standard equipment but are available as options only.

In some cases protective covers have been removed or opened for illustrative purposes. They must be in place during machine operation.

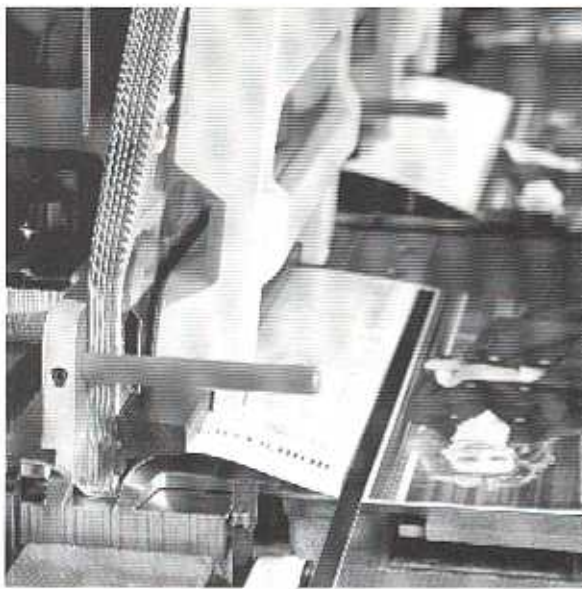
Design, specifications and measurements subject to change.

Sales and Service

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Tигра Perfect Binder

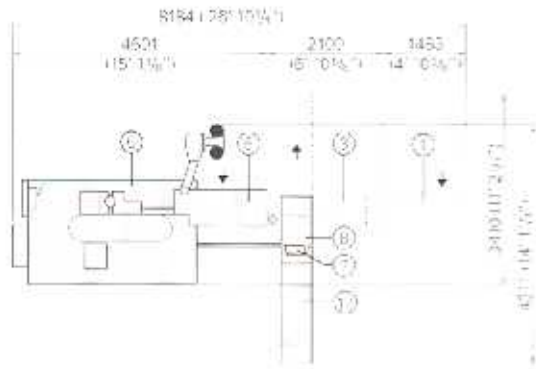
Specifications

Mechanical speed		1000 - 3600 c/hr.	
Sizes, untrimmed	A Book spine length	max. 370 mm / 14 1/2" min. 120 mm / 4 3/4"	
	B Book width	max. 285 mm / 11 1/4" min. 100 mm / 4"	
	C Book thickness	max. 40 mm / 1 1/2" min. 3 mm / 1/8"	
Cover open	Spine length	max. 380 mm / 15" min. 120 mm / 4 3/4"	
	Book width	max. 620 mm / 24 3/8" min. 203 mm / 8"	
Raceway clearance of infeed		60 mm / 2 3/8"	
Power consumption	Basic equipment	14.4 kW	
	Premelter 22 ltr (45 lbs.) for spine gluing unit	4.2 kW	
	Premelter 4.5 ltr (10 lbs.) for side gluing unit	0.9 kW	
	Laydown device	0.4 kW	
Air requirements	Hotmelt	Air-blow	45.0 Nm ³ /h at 0.6 bar / 27 cfm at 9 psi
		Compressed air	8.0 Nm ³ /h at 6.0 bar / 5 cfm at 87 psi
	Cold glue	Air-blow	80.0 Nm ³ /h at 0.6 bar / 47 cfm at 9 psi
		Compressed air	12.0 Nm ³ /h at 6.0 bar / 7 cfm at 87 psi
	Vacuum		12.5 Nm ³ /h at 60% / 7.5 cfm at 60%
Number of feeder stations		max. 24	
Number of clamps		9	

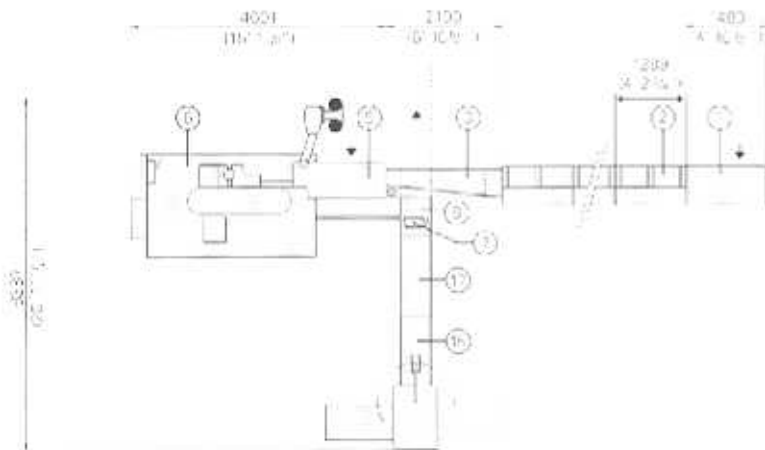
Other sizes on request.

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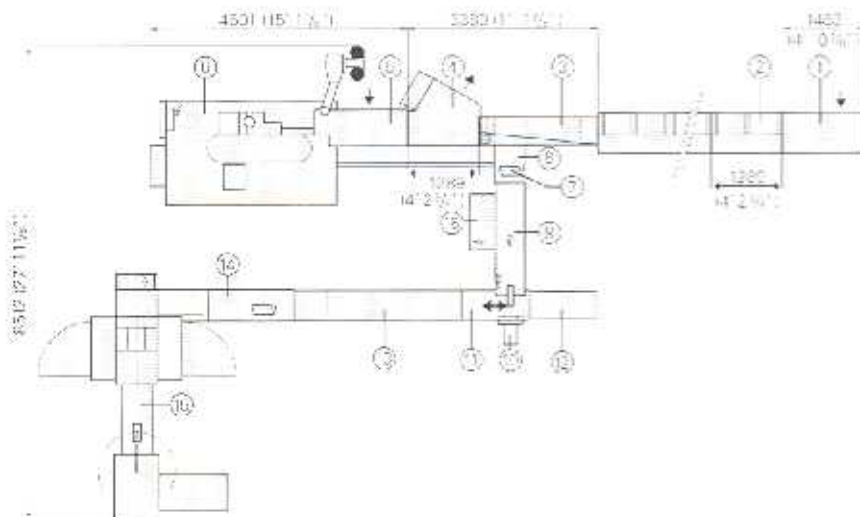
Tigra Perfect Binder, hand-fed



Tigra Perfect Binder with gathering machine



Tigra Perfect Binder with gathering machine and three-knife trimmer



- 1 Tensioning unit with hand feeding station 1571
- 2 Gathering machine 1571
- 3 Spiral raceway
- 4 Criss-cross delivery 1536
- 5 Hand feeding station
- 6 Tigra Perfect Binder 1570
- 7 Laydown device
- 8 Conveyor belt
- 9 Telescopic belt 1541 with accelerator
- 10 Backstop
- 11 Conveyor belt 1541, reversible
- 12 Roller table 1527
- 13 Conveyor belt 1541
- 14 Merit Three-Knife Trimmer 3671
- 15 CB-12 Counter Stacker 1534
- 16 Conveyor belts operator console
- 17 Conveyor belt

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