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.
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.

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**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.

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**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 (±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
### Mechanical speed
1000 - 3600 c/hr.

### Sizes, untrimmed
<table>
<thead>
<tr>
<th>Component</th>
<th>Max. (mm)</th>
<th>Min. (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Book spine length</td>
<td>370</td>
<td>120</td>
</tr>
<tr>
<td>B Book width</td>
<td>285</td>
<td>100</td>
</tr>
<tr>
<td>C Book thickness</td>
<td>40</td>
<td>3</td>
</tr>
</tbody>
</table>

### Cover open
<table>
<thead>
<tr>
<th>Component</th>
<th>Max. (mm)</th>
<th>Min. (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spine length</td>
<td>380</td>
<td>120</td>
</tr>
<tr>
<td>Book width</td>
<td>620</td>
<td>203</td>
</tr>
</tbody>
</table>

### Raceway clearance of infeed
60 mm / 2 5/8"

### Power consumption
<table>
<thead>
<tr>
<th>Equipment</th>
<th>Power (kW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic equipment</td>
<td>14.4</td>
</tr>
<tr>
<td>Premelt 22 ltr (45 lbs.) for spine gluing unit</td>
<td>4.2 kW</td>
</tr>
<tr>
<td>Premelt 4.5 ltr (10 lbs.) for side gluing unit</td>
<td>0.9 kW</td>
</tr>
<tr>
<td>Laydown device</td>
<td>0.4</td>
</tr>
</tbody>
</table>

### Air requirements
<table>
<thead>
<tr>
<th>Component</th>
<th>Flow rate (Nm³/h)</th>
<th>Pressure (bar)</th>
<th>Cfm (psi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotmelt</td>
<td>45.0</td>
<td>0.6</td>
<td>27</td>
</tr>
<tr>
<td>Air-blow</td>
<td>8.0</td>
<td>6.0</td>
<td>5</td>
</tr>
<tr>
<td>Compressed air</td>
<td>80.0</td>
<td>0.6</td>
<td>47</td>
</tr>
<tr>
<td>Cold glue</td>
<td>12.0</td>
<td>6.0</td>
<td>7</td>
</tr>
<tr>
<td>Air-blow</td>
<td>12.0</td>
<td>6.0</td>
<td>7</td>
</tr>
<tr>
<td>Compressed air</td>
<td>12.5</td>
<td>60%</td>
<td>7.5</td>
</tr>
</tbody>
</table>

### Number of feeder stations
max. 24

### Number of clamps
9

Other sizes on request.
Design specifications and measurements subject to change.