# TECNOGRAF

# di Pulcini Vittorio

MACCHINE PER LEGATORIA DAL 1975 - BOOKBINDING MACHINES SINCE 1975





# GENERAL CATALOGUE

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  - SERIES MODULO 2X
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- BELT CONVEYORS, EMERGENCY BY-PASS AND FRICTION ROLLERS UPON REQUEST

# STACKERS FOR HIGH PRODUCTION

# STACKERS WITH ROTATION SERIES TECNO

The TECNO stacker is a simple, easy to use versatile stacker which offers a large variety of applications in the book industry and guarantees high performances on different types of products. The reliable compensating turning cage provides gentle handling and stacking of products such as book blocks, paperbacks and hardcover books. Incoming books or piles of books are delivered and placed into a rotating cage from the bottom. This operation eliminates any friction on the surface of books and prevents any risk of damage even in the presence of delicate materials such as small sizes, valuable endpapers and dust jackets. When required by the pre-set program (e.g. every two or three cycles), the cage turns 180 degrees to allow the opposing of the spines. When the stacking of the programmed number of products has been achieved, the pile is automatically transferred to a delivery conveyor for either removal or further processing.

# STACKER TECNO 55



#### **Main features**

- It is designed for perfect binding lines and three-knife trimmers up to a speed of 53 products (single or piles) per minute.
- It can be used for hardcover binding lines, shrink wrapping machines, spiral books, etc.
- It can be used as emergency exit.
- It is mounted on wheels for easy adjustment in height and deplacement from one production line to another.
- The delivery of products can be linear (standard) or 90 degrees left or right (optional), with the latter reducing significantly the operating space of the machine.
- The length of the outgoing conveyor is decided by customers at the time of order.
- Products entering the stacker should be better positioned back-front.

PLC power box with touch screen panel to set the functions of the machine.

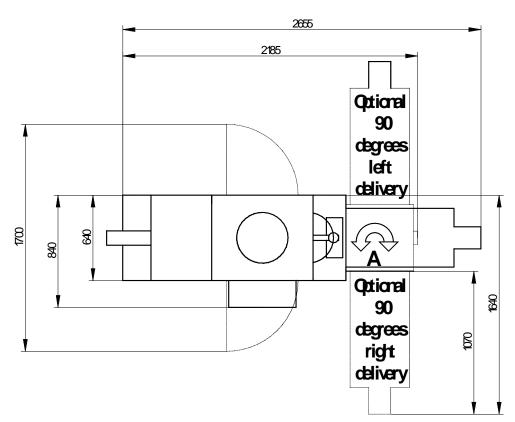
#### Standard devices

- Standard, easy to set off-setting device for those books whose spines must be off-set in pile (criss-cross system).
- An automatic by-pass unit makes it possible to use the TECNO stacker as an emergency exit. Should the following line stop, the second exit will be automatically activated and books diverted to a buffer area, without the need of stopping the production line.
- A thin-book holding device is available for use with thin and unstiff products.

#### **Optional extras**

- 90 degrees left or right delivery.
- Devices for small sizes down to a minimum of 75x105 mm.
- 90 degrees outgoing pile rotation (A).
- Quality control device for single product delivery.

#### Layout



#### **Technical Data**

Max size (spine across feeding direction)	380 x 300 mm
Min size (spine across feeding direction)	140 x 100 mm
Outgoing stacked pile height	Max 270 mm/min 10 mm
Thickness	Max 80 mm/min 3 mm
Speed	Max 53 p/min
Power	1 kW
Air requirements	45 nl/min - 6 Bar
Net weight	about 650 kg

# STACKER TECNO 60



#### **Main features**

- Same structure as TECNO 55.
- It is designed for stacking hardcover books up to a 60 products (single or piles) per minute.
- It can be used as emergency exit.
- It is mounted on wheels for easy adjustment in height and deplacement from one production line to another.
- The delivery of products can be linear (standard) or 90 degrees left or right (optional), with the latter reducing significantly the operating space of the machine.
- The length of the outgoing conveyor is decided by customers at the time of order.
- Products entering the stacker should be better positioned back-front.
- PLC power box with touch screen panel to set the functions of the machine.

#### Standard devices

- Standard, easy to set off-setting device for those books whose spines must be off-set in pile (criss-cross system).
- An automatic by-pass unit makes it possible to use the TECNO stacker as an emergency
  exit. Should the following line stop, the second exit will be automatically activated and
  books diverted to a buffer area, without the need of stopping the production line.
- Automatic timing to ensure adequate spacing between the products entering the stacker and avoid jamming.

#### **Optional extras**

- 90 degrees left or right delivery.
- Devices for small sizes down to a minimum of 75x105 mm.
- 90 degrees outgoing pile rotation (A).
- Quality control device for single product delivery.

#### Layout

Tecno 60 has the same size as Tecno 55.

#### **Technical Data**

Max size (spine across feeding direction)	380 x 300 mm
Min size (spine across feeding direction)	140 x 100 mm
Outgoing stacked pile height	Max 270 mm/min 10 mm
Thickness	Max 80 mm/min 3 mm
Speed	Max 60 p/min
Power	1 kW
Air requirements	45 nl/min - 6 Bar
Net weight	about 650 kg

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# STACKER TECNO 100



#### **Main features**

- TECNO 100 is the fastest and most versatile of the TECNO stackers.
- It is designed for hardcover books, soft cover books, three knife trimmers, spiral books, shrink wrapping machines and many other products.
- It can deliver up to 120 products (single or piles) per minute.
- It can be used as emergency exit.
- It is endowed with a pre-stacking device which stacks the products in piles of two or more before entering the machine, with a consequent doubling in performances.
- If the pre-stacking device is not activated, speed sets at 53 prod/min.
- It is mounted on wheels for easy adjustment in height and deplacement from one production line to another.
- The delivery of products can be linear (standard) or 90 degrees left or right (optional), with the latter reducing significantly the operating space of the machine.
- The length of the outgoing conveyor is decided by customers at the time of order.
- Products entering the stacker should be better positioned back-front.
- PLC power box with touch screen panel to set the functions of the machine.

#### Standard devices

An automatic by-pass unit makes it possible to use the TECNO stacker as an emergency

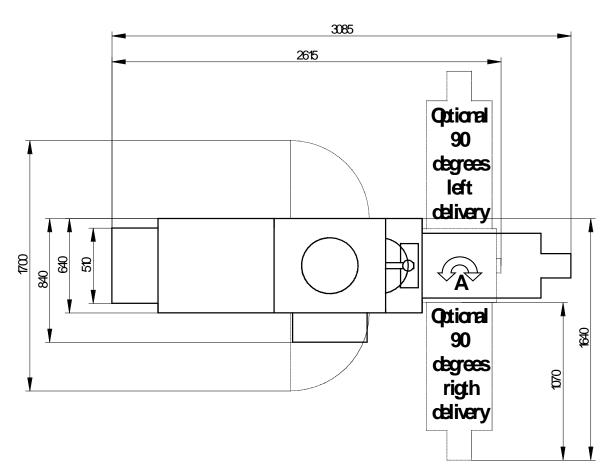
exit. Should the following line stop, the second exit will be automatically activated and books diverted to a buffer area, without the need of stopping the production line.

- A thin-book holding device is available for use with thin and unstiff products.
- Standard, easy to set off-setting device for those books whose spines must be off-set in pile (criss-cross system).

#### **Optional extras**

- 90 degrees left or right delivery (see layout).
- Devices for small sizes down to a minimum of 75x105 mm.
- 90 degrees rotation of outgoing piles (A).
- Quality control device for single product delivery.

#### Layout



#### **Technical data**

Max size (spine across feeding direction)	380 x 300 mm
Min size (spine across feeding direction)	140 x 100 mm
Outgoing stacked pile height	Max 270 mm/min 10 mm
Thickness	Max 80 mm/min 3 mm
Speed	Max 120 p/min
Power	1.25 kW
Air requirements	50 nl/min - 6 Bar
Net weight	about 830 kg

## STACKER TECNO 160



#### Main features

- It is designed for stacking hardcover books up to a speed of 120 products (single or piles) per minute.
- Products enter the machine with spine parallel to the feeding direction and are delivered with spine across feeding direction.
- It is endowed with a pre-stacking device which stacks the products in piles of two or more before entering the machine, with a consequent doubling in performances.
- If the pre-stacking device is not activated, speed sets at 60 prod/min.
- It is mounted on wheels for easy adjustment in height and deplacement from one production line to another.
- The delivery of products can be linear (standard) or 90 degrees left or right (optional), with the latter reducing significantly the operating space of the machine.
- The length of the outgoing conveyor is decided by customers at the time of order.
- Products entering the stacker should be better positioned back-front.
- PLC power box with touch screen panel to set the functions of the machine.

#### Standard devices

- An automatic by-pass unit makes it possible to use the TECNO stacker as an emergency exit. Should the following line stop, the second exit will be automatically activated and books diverted to a buffer area, without the need of stopping the production line.
- A thin-book holding device is available for use with thin and unstiff products.
- Standard, easy to set off-setting device for those books whose spines must be off-set in pile (criss-cross system).

#### **Optional extras**

- 90 degrees left or right delivery (see layout).
- Devices for small sizes down to a minimum of 75x105 mm.
- 90 degrees outgoing pile rotation (A).
- Quality control device for single product delivery.

#### Layout 2775 2305 **Qticnal** 90 510 degrees Left 8 left infeed delivery 1090 430 8 2080 **Optional** Right 8 90 infeed degrees right delivery

# **Technical data**

Max size (spine across feeding direction)	380 x 300 mm
Min size (spine across feeding direction)	140 x 100 mm
Outgoing stacked pile height	Max 270 mm/min 10 mm
Thickness	Max 80 mm/min 3 mm
Speed	Max 120 p/min
Power	1.25 kW
Air requirements	50 nl/min - 6 Bar
Net weight	About 860 kg

# STACKERS WITHOUT ROTATION MODEL MODULO 2X

Modulo 2X (M2X) is a small, more versatile and easy to use stacker. It is mainly used to unload free standing gathering machines of different manufacture (Muller-Martini, Kolbus, Annovazzi, Compagnoni, Horizon, Smyth, etc.) and shrink wrapping machines. However, it can also be placed after hardcover casing-in lines, perfect binding lines, sewing machines, punching machines, three-knife trimmers, emergency lines and for many other applications. It can also be used as a three-knife trimmer feeder.

Products get stacked through a fall from the top down. The machine is endowed with a prestacking device which increases significantly the speed of production.

When the stacking of the programmed number of products has been achieved, the pile is automatically transferred to the delivery conveyor for either removal or further processing.

According to the customer's request, the delivery of products can be either linear or 90 degrees left or right (the latter reduces significantly the operating space of the machine and can be endowed with the criss-cross system).

# STACKER M2X LINEAR



#### **Main features**

- It is designed to unload gathering machines, shrink wrapping machines, hardcover casing-in lines, perfect binding lines, sewing machines, punching machines, etc.
- It is designed to load three-knife trimmers.
- It is mounted on wheels for easy adjustment in height and deplacement from one production line to another.
- The length of the outgoing conveyor is decided by customers at the time of order.
- Products entering the machine can be positioned with spine either across or parallel to feeding direction.
- PLC power box with touch screen panel to set the functions of the machine.

#### Standard devices

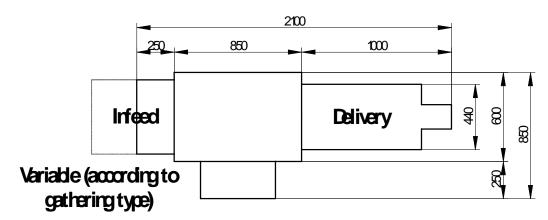
Pre-stacking device.

• Upper ingoing conveyor belt to unload gathering machines and staplers.

### **Optional extras**

- Max size 520x380 mm.
- Min size 80x100 mm.
- Stacked pile height 160 mm.
- Product laying device.

#### Layout



#### **Technical data**

Max size (spine across feeding direction)	370 x 370 mm
Min size (spine across feeding direction)	100 x 100 mm
Outgoing stacked pile height standard	Max 140 mm/optional 160
Speed	Max 120 p/min
Power	0.5 kW
Air requirements	6 nl/min - 6 Bar
Net weight	about 250 kg

# STACKER M2X 90°



#### **General features**

- It is designed to unload gathering machines, shrink wrapping machines, hardcover casing-in lines, perfect binding lines, sewing machines, punching machines, etc.
- It is designed to load three-knife trimmers.
- It is mounted on wheels for easy adjustment in height and deplacement from one production line to another.
- 90 degrees left or right delivery.
- The length of the outgoing conveyor can vary according to customer's need.
- Products entering the machine can be positioned with spine either across or parallel to feeding direction.
- PLC power box with touch screen panel to set the functions of the machine.

#### Standard devices

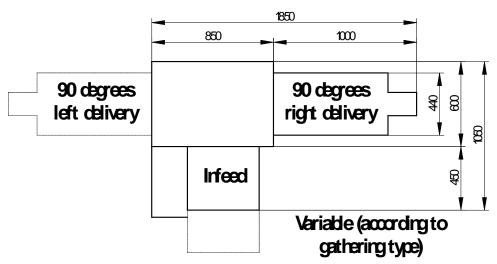
- Pre-stacking device.
- Upper ingoing conveyor belt to unload gathering machines and staplers.

#### **Optional extras**

- Criss-cross mode.
- Product-laying device.
- Stacked pile height 160 mm.

- Max size 520x380 mm.
  - Min size 80x100 mm.

#### Layout



#### **Technical data**

Max size (spine across feeding direction)	360 x 360 mm
Max size for both standard gathering and criss-cross mode	450 x 360 / 420 x 360 mm
Min size (spine across feeding direction)	100 x 100 mm
Min size for both standard gathering and criss-cross mode	150 x 100 / 180 x 100 mm
Outgoing stacked pile height standard	Max 140 mm/optional 160
Speed	Max 120 p/min
Power	0.5 kW
Air requirements	6 nl/min - 6 Bar
Net weight	about 300 kg

# STACKERS FOR LOW PRODUCTION

# STACKER COMBI



#### **General description**

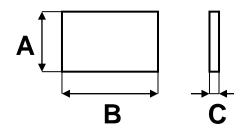
The stacker Combi is compact and cheap and is endowed with a 90 degrees rotating station. With a maximum speed of 1200 products per hour, it is designed to be installed on low-production lines. Products are turned 90 degrees (alternately clockwise and counterclockwise) by a foldaway pneumatic system and then get stacked through a fall from the top to the bottom of the stacker. The delivery conveyor's standard length is 1200 mm, but other sizes can be provided upon customer's request.

#### Main features

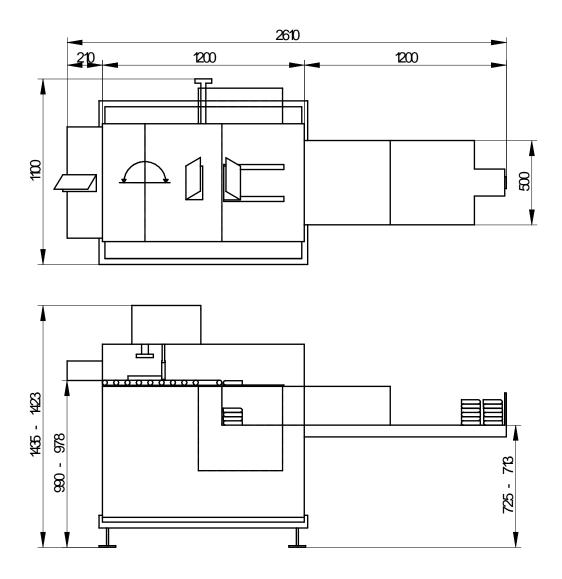
- Steel structure.
- Foldaway 90 degrees rotating station and rotating idling board for a gentle handling of products.
- Pre-stacking device.
- Product-laying device which drives heavy products into the station and reduces the height of drop to prevent any possible damage.
- It is possible to switch-off the rotating system to increase speed up to 120 products per minute and make the COMBI work like an M2X linear.
- Customised length of the outgoing conveyor.

### **Technical data**

Max size	450 (B) x 350 (A) mm
Min size	100 (B) x 100 (A) mm
Outgoing stacked pile height	Max 160 mm
Thickness (C)	Max 80 mm/min 3 mm
Speed	Max 1200 p/hour
Power	0.5 kW
Air requirements	10 nl/min - 6 Bar
Net weight	about 400 kg



# Layout



# BLOCK BOOK FEEDER

# BOOK BLOCK FEEDER BOOKPACER



#### **General description**

Small-sized and easy to use book block feeder without auto-load system. It is designed to feed hardcover casing-in lines, perfect binding lines, shrink wrapping machines, book presses, etc. The maximum speed is 8500 cycles per hour. The length of the outgoing conveyor belt meets customer's request.

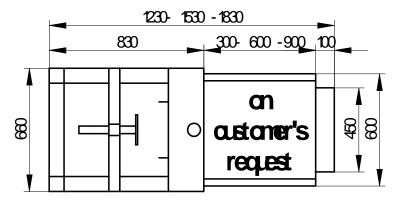
#### **Main features**

- Steel structure.
- Steel chromium-plated feeder plate to provide gentle handling of products.
- Suction system with 8 suction cups for thin products and different setting options.
- Interchangeable chromium-plated steel pushing devices which adapt to different thicknesses of products.
- Speed switch:
  - Single: the BOOKPACER is used as a standalone unit and speed is adjusted only through a potentiometer.
  - o Tandem: the BOOKPACER is used to feed another machine. Speed is set automatically depending on the main machine by means of a tachometer dynamo.
- Rollers extracting products are endowed with rubber wheels.
- The upper roller can be disabled to prevent any possible damage to the product spine.
- Reclining outgoing conveyor belt with slide and runners to deliver products to the next machine.
- PLC power box and inverter.

## **Optional extras**

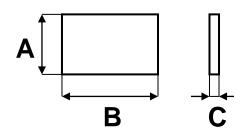
Max size 520x315.

### Layout



#### **Technical data**

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Max size	415 (B) x 315 (A) mm
Min size	110 (B) x 80 (A) mm
Outgoing stacked pile height	Max 350 mm
Thickness (C)	Max 80 mm/min 2 mm
Speed	Max 8500 cycles/hour
Power	1.25 kW
Air requirements	3 nl/cycle - 6 Bar
Net weight	about 380 kg



# BOOK BLOCK FEEDER BOOKPACER WITH TOPFEEDER



#### **General description**

Compact book block feeder with auto-load system TOPFEEDER (standard size 1.5 m). It is designed to feed hardcover casing-in lines, perfect binding lines, shrink wrapping machines, book presses, etc. The maximum speed is 8500 cycles per hour. The length of the ingoing and outgoing conveyor meet customer's request.

#### Main features

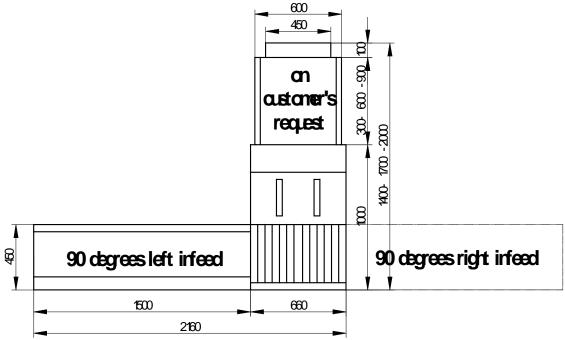
It has the same structure as the BOOKPACER but is endowed with the TOPFEEDER auto-load system characterised by:

- Infeed friction conveyor (1.5 m standard length) with automatic bypass.
- Chromium-plated rollers for the entrance of products and slide for their transfer to the pre-stacking chamber.
- 90 degrees right or left infeed.

#### **Optional extras**

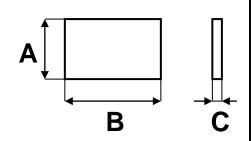
Maximum size 520x315.





#### **Technical data**

Max size	415 (B) x 315 (A) mm
Min size	110 (B) x 80 (A) mm
Outgoing stacked pile height	Max 220 mm
Thickness (C)	Max 80 mm/min 2 mm
Speed	Max 8500 cycles/hour
Power	1.5 kW
Air requirements	5 nl/cycle - 6 Bar
Net weight	About 680 kg



# STACKERS TO UNLOAD FOLDING MACHINES

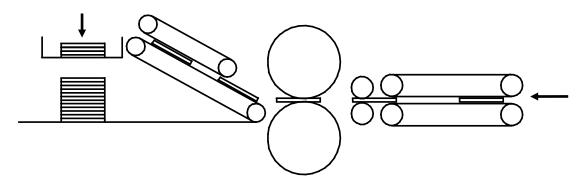
# STACKER MO.CA



#### Main features

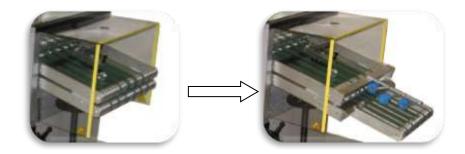
- Steel structure.
- It is mounted on wheels for easy deplacement from one production line to another.
- Gradual pressing system.
- Adjustable infeed conveyor from 540 to 970 mm (or from 410 to 1100 mm on request).
- Non-torsion of signatures.
- Non-scratching of products.
- Quality control device for single product delivery...
- Two main pressing cylinders (150 mm diameter).
- Fast automatic regulation of rollers pressure
- Pre-stacking chamber with signature counting for uniform piles.
- Stacking chamber of 160 mm.
- Product-laying device (reduces the height of drop to prevent any possible damage).
- 90 degrees left or right delivery.
- Pressing device on delivery.
- Control touchpad panel to set the speed of the calender and the number of signatures at both pre-stacking and delivery.

Pressing system and stacking with fall from the top to the bottom:

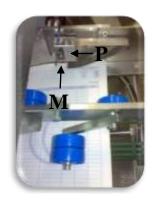


# **Optional extras**

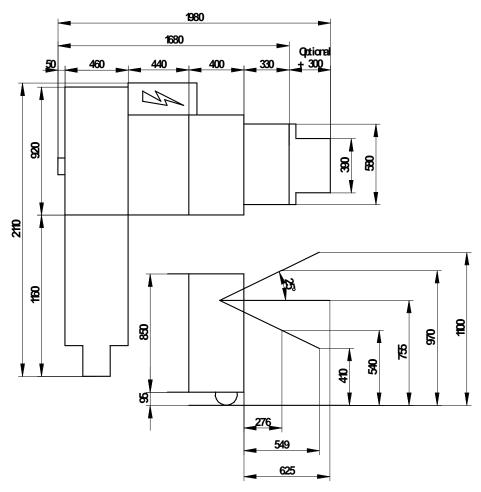
• +300 mm infeed conveyor.



• Photosensor (P) identifying marks (M) on last pages and ordering product ejection.



# Layout



# **Technical data**

Max size (spine across feeding direction)	340 x 520 mm
Min size (spine across feeding direction)	100 x 150 mm
Outgoing stacked pile height	Max 160 mm
Mechanical speed	Max 15.000 p/hour
Power	1.11 kW
Air requirements	6 nl/min - 6 Bar
Net weight	about 600 kg





#### **General description**

90 degrees left or right conveyor installed on a gathering line with perfect binding for the delivery of signature to a stacker. Outgoing stacked piles are ready to be unloaded or to be delivered to the sewing machines. The removal of components allows a fast recovery of the criss-cross mode and the continuation of perfect binding process.

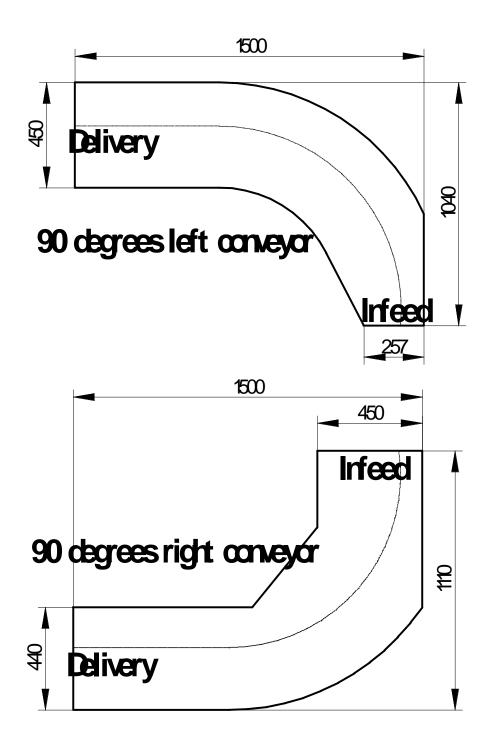
#### Main features

- Steel structure.
- Concurrent running with the perfect binding line.
- Hook device to eject products before they enter the perfect binding line.
- Set of metal sheets to modify the channel.
- Two versions available:
  - 90 degrees right
  - o 90 degrees left

### **Optional extras**

Custom extension of the curve (1500 mm standard).

#### Layout



# 90 DEGREES SWITCH DEVICES

90° SWITCH OF SINGLE BOOKS



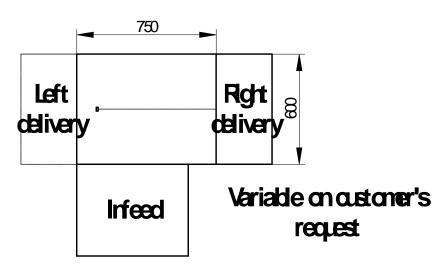
#### **General description**

90 degrees right or left switch device for single books with speed up to 70 products per minute. The product is switched by a motorized hook. The chromium-plated rollers carrying the product inside the machine stop and flatten to a smooth surface to prevent any damage to products.

#### **Main features**

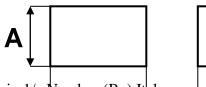
- Steel structure.
- Independent motorized infeed and delivery conveyor belts whose length depends on customer's request.
- Right or left delivery upon customer's request.
- Product switch by means of motorized hook.

#### Layout



#### **Technical data**

Max size	380 (B) x 380 (A) mm
Min size	100 (B) x 100 (A) mm
Thickness (C)	Max 80 mm/min 3 mm
Speed	Max 70 p/min



Power	1 kW
Net weight	about 180 kg



# 90° SWITCH OF BOOK PILES



#### **General description**

Firstly manufactured as an integral part of the most recent TECNO models, it is now available as a single unit for two different applications:

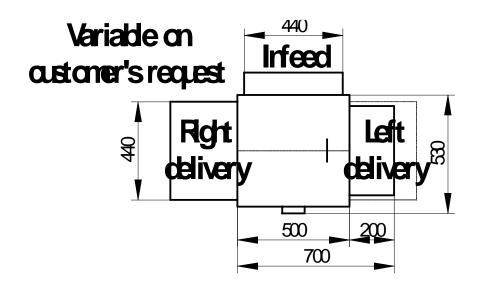
- in-line for the switch of book piles.
- after an old-design TECNO stacker lacking the 90 degrees delivery device.

Both applications reduce significantly both the size and the operating space of the machine. The switch of products is achieved through a small shovel installed on a conveyor slide. The chromium-plated rollers carrying the product inside the machine stop and flatten to a smooth surface to prevent any damage to products.

#### **Main features**

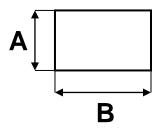
- Steel structure.
- Right or left delivery upon customer's request.
- Product switch by means of a small shovel installed on a conveyor slide.
- Power box with possibility of connection to a Tecno stacker.
- Length of both ingoing and outgoing conveyors upon customer's requests.

#### Layout



#### **Technical data**

Max size	380 (B) x 380 (A) mm
Min size	100 (B) x 100 (A) mm
Outgoing stacked pile height	300 mm
Speed	Max 50 p/min
Power	0.25 kW
Air requirements	3 nl/cycle - 6 Bar
Net weight	about 180 kg



# **BOOK TURNING-OVER MACHINES**

## 180 DEGREES TURNING-OVER MACHINE RIBA



#### **General description**

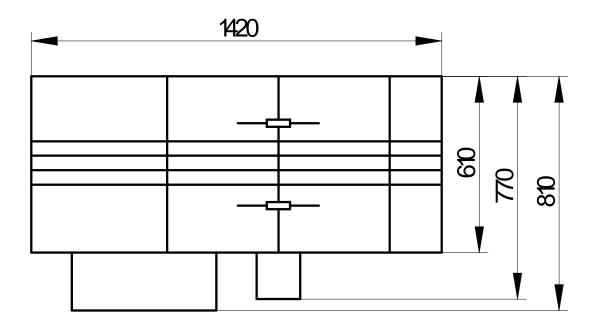
RIBA is a conveyor belt which turns over products 180 degrees. The product enters the RIBA with the front page facing upwards and is delivered with the same page facing downwards. One main application of the RIBA is through its installation before a labelling machine, as the former allows the latter to apply labels on the spine of books.

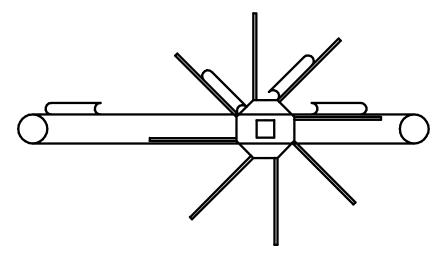


#### **Main features**

- Steel structure.
- Star rotating device with chromium-plated arms and clutch brake.
- It is possible to remove the chromium-plated arms to avoid product overturn.
- It is possible to remove some of the arms to allow alternating product overturn.

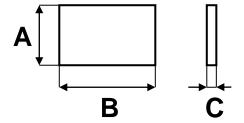
#### Layout





#### **Technical data**

Max size	420 (B) x 300 (A) mm
Min size	100 (B) x 300 (A) mm
Power	0.75 kW
Net weight	about 300 kg



# WIRE-O'S MACHINES

# TURNING-OVER CONVEYOR TORSION



#### **General description**

The conveyor belt TORSION causes a 180 degrees rotation of products around their own axis of symmetry. It is mainly used in tandem with the cover turning machine SCORPION to unload spiral books.

#### Main features

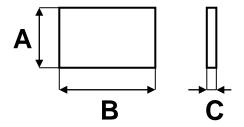
- Steel structure.
- Double crossed overlapping belt running on tracks.
- Adjustable infeed thickness.

#### **Optional extras**

Length of the infeed conveyor upon customer's request.

#### **Technical data**

Max size	380 (B) x 310 (A) mm
Min size	100 (B) x 100 (A) mm
Thickness (C)	Max 40 mm/min 3 mm
Speed	Max 13000 p/hour
Power	0.25 kw
Weight	About 250 kg



# **BOOK COVER TURNING MACHINE SCORPION**





#### **General description**

It is designed specifically to turn the cover of spiral books as required by law. A suction cup adheres to the cover and turns it 180 degrees. A specific belt closes it at the bottom.

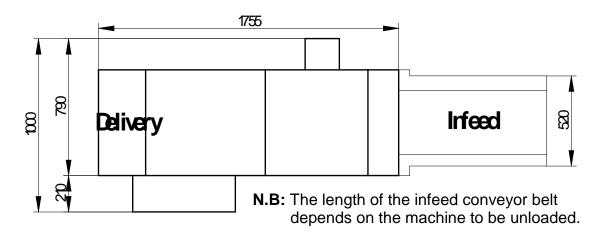
#### Main features

- Steel structure.
- 180° rotating arm endowed with an automatic suction cup which opens the book cover.
- Side ventilation system and comb to separate the pages before the cup.
- Bypass belt system to re-close the cover.
- Infeed conveyor belt whose length depends on the machine to be unloaded.

#### **Optional extras**

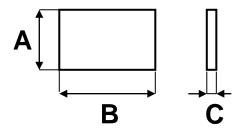
 Non-standard sizes are available upon request after the manufacturer has tested feasibility.

#### Layout

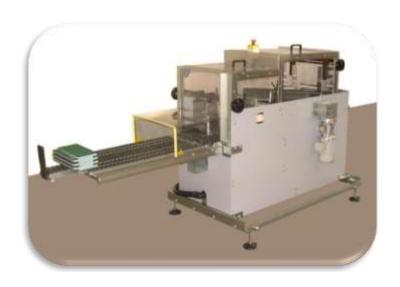


#### **Technical data (Standard)**

Max size	380 (B) x 310 (A) mm
Min size	100 (B) x 100 (A) mm
Thickness (C)	Max 250 mm
Speed	Max 1800 p/hour
Power	0.5 kW
Air requirements	10nl/min - 6 Bar
Net weight	About 380 kg



# STACKER MODEL ECON

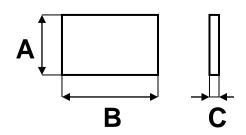


#### **General description**

Born from the merging of the turning-over machine RIBA and the stacker M2X linear, ECON is the only stacker of the series MODULO allowing the turnaround of products. Designed specifically for spiral products, it can be installed on any type of lines. Incoming products are alternately turned over (see RIBA) before entering a chamber where they get stacked with the classic fall from top down and ejected by means of a motorized hook (see stacker M2X linear).

#### **Technical data**

Max size	450 (B) x 350 (A) mm
Min size	100 (B) x 100 (A) mm
Outgoing stacked pile height	Max 160 mm
Thickness (C)	Max 80 mm/min 3 mm
Speed	Max 120 p/min
Power	0.5 kW
Air requirements	10 nl/min - 6 Bar
Weight	About 530 kg

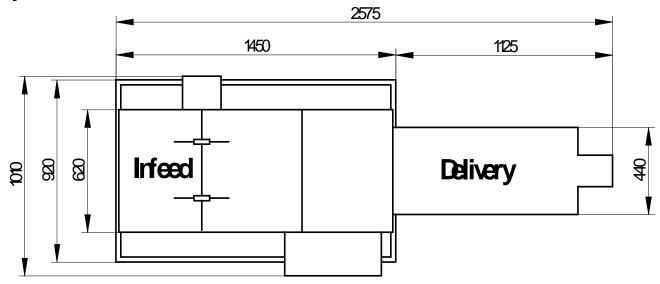


#### **Main features**

Steel structure.

- Rotating device with alternating chromium-plated arms and clutch brake.
- It is possible to switch off the turning-over of products.
- Alternated upsetting of products (once put of two times).
- Belt running on tracks.
- Length of the outgoing conveyor upon customer's request.

### Layout





# **TECNOGRAF**

di Pulcini Vittorio

MACCHINE PER LEGATORIA DAL 1975 BOOKBINDING MACHINES SINCE 1975