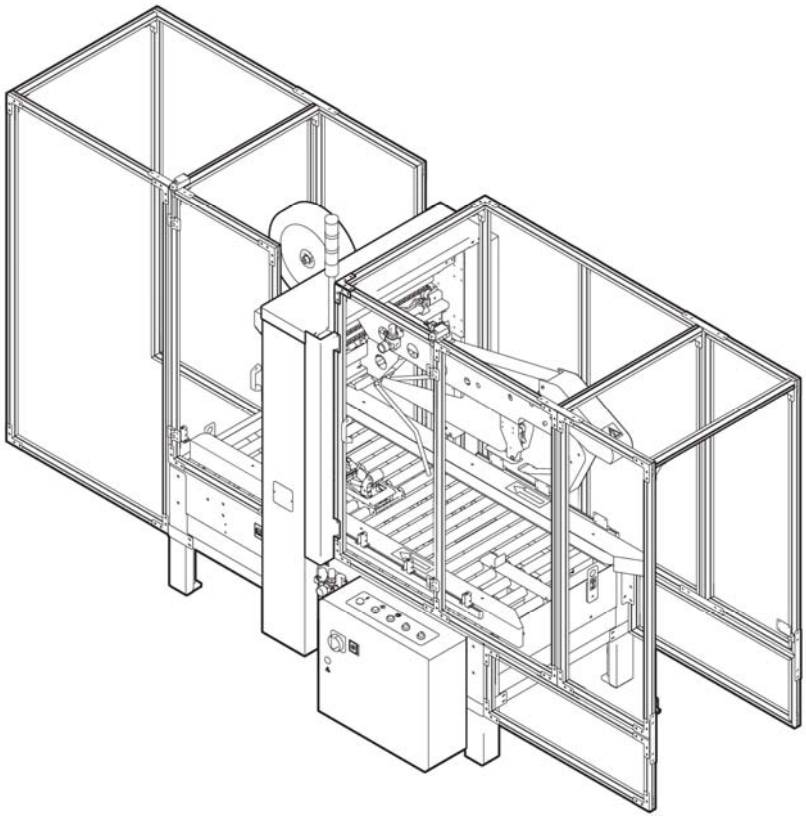
ROBOPAC

ENG

USE AND MAINTENANCE MANUAL

CE



Cardboard box taping machine

ROBOTAPE 50 CFA

Translation of the original instructions

Code: **3709303011.0**
Edition: **1217**

_____ SERIAL NUMBER _____

Caution

Read and understand these instructions before using the machine.
Keep this handbook for further consultation.

Summary

1. GENERAL INFORMATION
- 1.1. PURPOSE OF THE MANUAL
- 1.2. MANUFACTURER AND MACHINE IDENTIFICATION
- 1.3. TERMS AND DEFINITIONS
- 1.4. MODES OF REQUESTING FOR ASSISTANCE
- 1.5. ATTACHED DOCUMENTATION
- 1.6. HOW TO READ THE DIRECTIONS FOR USE

2. SAFETY INFORMATION
- 2.1. GENERAL SAFETY PRECAUTIONS
  - 2.1.1. EMPLOYER OBLIGATIONS
- 2.2. SAFETY WARNINGS FOR HANDLING AND INSTALLATION
- 2.3. SAFETY WARNINGS FOR USE AND OPERATION
- 2.4. APPROPRIATE USE OF THE MACHINE
- 2.5. SECURITY WARNING FOR REASONABLY FORESEEABLE IMPROPER USE
- 2.6. SAFETY WARNINGS ON RESIDUAL RISKS
- 2.7. SAFETY WARNINGS FOR REGULATIONS AND MAINTENANCE
- 2.8. SAFETY WARNING FOR ELECTRICAL EQUIPMENT
- 2.9. INFORMATION AND SAFETY SIGNALS
- 2.10. SURROUNDING AREAS

3. TECHNICAL INFORMATION
- 3.1. MACHINE GENERAL DESCRIPTION
- 3.2. DESCRIPTION OF THE OPERATION CYCLE
- 3.3. SAFETY DEVICE DESCRIPTIONS
- 3.4. DESCRIPTION OF THE ELECTRICAL DEVICES
- 3.5. PNEUMATIC DEVICE DESCRIPTION
- 3.6. ACCESSORIES AVAILABLE UPON REQUEST
  - 3.6.1. DESCRIPTION OF THE TAPING UNIT
- 3.7. TECHNICAL SPECIFICATIONS
  - 3.7.1. MACHINE DIMENSIONS
  - 3.7.2. TECHNICAL SPECIFICATIONS OF INFEED AND OUTFEED CONVEYORS (OPTIONAL)
  - 3.7.3. SIZES OF CONVEYORS (OPTIONAL)
  - 3.7.4. BOX DIMENSIONS
- 3.8. NOISE LEVEL
- 3.9. INSTALLATION ENVIRONMENT CHARACTERISTICS

4. INFORMATION ON HANDLING AND INSTALLATION OPERATIONS
- 4.1. RECOMMENDATIONS FOR HANDLING AND LOADING
- 4.2. PACKAGING AND UNPACKING
- 4.3. TRANSPORT AND HANDLING
- 4.4. MACHINE INSTALLATION
- 4.5. CARRIERS INSTALLATION (OPTIONAL)
- 4.6. RECOMMENDATIONS FOR CONNECTIONS
- 4.7. PNEUMATIC CONNECTIONS
- 4.8. ELECTRICAL CONNECTION

5. INFORMATION ON ADJUSTMENTS
- 5.1. RECOMMENDATIONS FOR ADJUSTMENTS
- 5.2. CONVEYOR BELT ADJUSTMENT
- 5.3. ADJUST THE TRANSPORT UNIT DRIVING CHAIN
- 5.4. ADJUSTMENT FLAP CLOSER DEVICE

5.5. ADJUSTMENT OF TRANSPORT ROLLER MOVEMENT BELT
5.6. SIDE PRESSER MOVEMENT CHAIN ADJUSTER

6. ABOUT THE USE

6.1. RECOMMENDATIONS FOR OPERATION AND USE
6.2. CONTROL DESCRIPTION
6.3. SWITCHING THE MACHINE ON AND OFF
6.4. EMERGENCY STOP AND RESTART
6.5. FORMAT CHANGE
6.6. WORKBENCH HEIGHT SETTING OF THE MACHINE
6.7. WORKBENCH HEIGHT SETTING OF CARRIERS (OPTIONAL)
6.8. CARRIER GUIDE EXCLUSION IN ENTRANCE

7. MAINTENANCE INFORMATION

7.1. MAINTENANCE INSTRUCTIONS
7.2. MAINTENANCE PERIOD TABLE
7.3. LUBRICATION POINT DIAGRAM
7.4. CONDENSATE DISCHARGE
7.5. CLEANING THE AIR FILTER
7.6. LUBRICANTS TABLE

8. TROUBLESHOOTING

8.1. TROUBLES, CAUSES AND REMEDIES
8.2. ALARM MESSAGES
8.3. MESSAGES

9. SPARE PARTS REPLACEMENT INFORMATION

9.1. RECOMMENDATIONS FOR REPLACING PARTS
9.2. REPLACEMENT OF CONVEYOR BELT
9.3. HOW TO REPLACE THE TRANSPORT UNIT DRIVING CHAIN
9.4. CHANGE THE SIDE PRESSERS HANDLING CHAIN
9.5. LIST OF THE RECOMMENDED SPARE PARTS
9.6. MACHINE DISPOSAL AND SCRAPING

10. ENCLOSED DOCUMENTATION

10.1. WARRANTY CONDITIONS
10.2. PNEUMATIC CIRCUIT DIAGRAM
10.3. T50 - T75 - T50/30 TAPING UNIT OPERATING MANUAL
10.4. CE STATEMENT OF CONFORMITY

1. GENERAL INFORMATION

1.1. PURPOSE OF THE MANUAL

- The manual is an integral part of the machine and is aimed to provide the operator the instructions for use in order to prevent and reduce the risks that arise from man-machine interface.
  The information have been written by the manufacturer into Italian (the original language) in full compliance with the professional writing principles and the regulations in force.
  The communication principles were chosen according to the target readers in order to ease the reading and understanding of the information.
  The information may be translated into other languages to satisfy the legal and/or market requirements.
  The manuals must be translated directly from the ORIGINAL INSTRUCTIONS, without modification.
  Each translation (including that provided by the purchasing agent or by the company that introduces the machine into the country in question) must specify the message "Translation of the original instruction".
- Keep this manual for the entire duration of its useful life in a well known and easy to access place, available for reference any time the need should arise.
- In order to easily consult the specific topics of interest, check the table of contents.
- Some information may not correspond completely to the actual configuration of the machine delivered.
- Any additional information does not affect the readability of the text and the safety level.
- The manufacturer reserves the right to modify the contents of the manual without prior notice provided that the safety level is not altered.
- The symbols described below are used to highlight the most important information or specifications.



Danger - Warning

Indicates critically dangerous situations that if neglected can result in serious personal safety and health hazards.



Caution - Warning

Indicates that suitable actions must be employed in order to avoid personal safety and health hazards and economic damages.



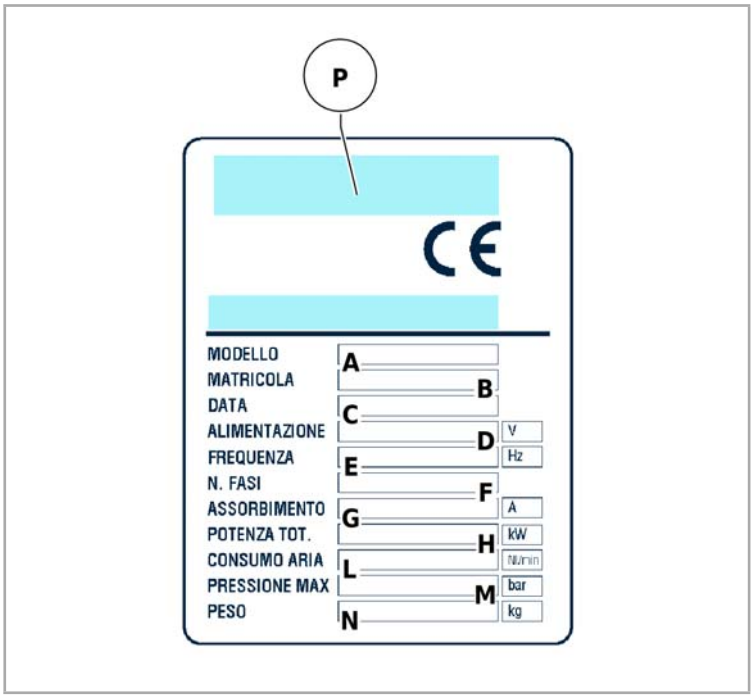
Important

Indicates particularly important technical information that should not be neglected.

1.2. MANUFACTURER AND MACHINE IDENTIFICATION

The illustrated identification plate is applied directly on the machine. It contains references and indispensable operating safety indications.

A) Machine model.
B) Machine's serial number.
C) Year of manufacture.
D) Power supply voltage.
E) Power supply frequency.
F) Power supply phases.
G) Electrical power consumption.
H) Total installed power.
L) Air consumption.
M) Max. air supply pressure.
N) Machine weight.
P) Manufacturer's name.



1.3. TERMS AND DEFINITIONS

Some recurring terms found within the manual are described in order to provide a more complete image of their meanings.

- **Routine maintenance**
  Group of functions necessary to maintain suitable machine operations and efficiency. Normally the manufacturer, who defines the necessary skills and intervention procedures, plans these operations.
- **Non-routine maintenance**
  The whole of the operations necessary to keep the operating and efficiency capacity of the machinery. These operations are not scheduled by the manufacturer and must be carried out by the maintenance technician.
- **Qualified technician**
  a person authorised and chosen from those who have the requirements, skills and information necessary for installation, use and extraordinary maintenance of the machine.
- **Operator**
  A person authorised and chosen from those who have the requirements, skills and information necessary for installation, use and ordinary maintenance of the machine.
- **Maintenance technician**
  A person authorised and chosen among those who have the requirements, skills and information necessary to perform ordinary and extraordinary machine maintenance. He is expected, therefore, to possess precise information and skills with particular expertise in the field of intervention.
- **Format Change**
  series of operations to carry out on the machine before starting to work with the machine with different characteristics respect to the previous ones.
- **Training**
  training process aimed to transfer to the operator the knowledge, skills and behaviour required to operate the machine autonomously, properly and safely.
- **Installer**
  technician chosen, among those that meet the requisites, and authorised by the manufacturer or by its representative, to install and test the machine or the system in question.
- **Assistant**
  employee assigned to assist the production processes of the machine or system in question.

– **Production manager**
A qualified and skilled technician with experience in the operation and use of machinery in the relevant manufacturing field.
According to the production needs, the Supervisors may use the machine themselves or give the task to another Operator.

1.4. MODES OF REQUESTING FOR ASSISTANCE

The distribution network **ROBOPAC** is at your service for any problem that requires technical support, to order spare parts, and for whatever new type of need that can help develop your business.
Report the data displayed on the ID plate, the estimated hours you have used the machine, and the type of flaw you have uncovered when requesting technical support.
Contact one of our authorized dealers at the listed address for all your needs.

ROBOPAC S.p.A.
VIA FABRIZIO DA MONTEBELLO, 81
47892 GUALDICCIOLO, REPUBBLICA S.MARINO (RSM)
Phone 0549 (international ++378) 910511
robopacmachinery@robopac.com
http://www.robopac.com

1.5. ATTACHED DOCUMENTATION

The machine is provided with the documentation listed below, in the absence of a different trade agreement.
- CE statement of conformity.
- Warranty conditions (included in this booklet).
- Instructions for unpacking and installation.
- Quick start guide.
- Manuals of installed commercial devices (if necessary for machine use).
- USB flash drive that contains the information listed.
  - Use and maintenance manual translated into various languages.
  - Spare parts catalogue.
  - Wiring diagram and list of components.

1.6. HOW TO READ THE DIRECTIONS FOR USE

The handbook is divided in chapters, each of which describes a specific category of information.
Each operator who interacts with the machine, apart from reading all the documentation, must read and learn the information concerning his specific qualification.
Refer to the name preceding the title of the chapters, present in the summary, to search for the subjects to consult.
These instructions are the result of an automatic system of assembly of text and illustrations, therefore, it is possible to find, as pages change, some interruptions of the flow of text and charts.
Keep this manual for the entire duration of its useful life in a well known and easy to access place, available for reference any time the need should arise.
Keep the instructions for use and the attached documentation for future consultation.

2. SAFETY INFORMATION

2.1. GENERAL SAFETY PRECAUTIONS

- Carefully read the “Directions for use”, paying particular attention to the “Residual risks”.
- Pay attention to the safety warnings.
- Use the machine only for the use for which it is designed.
- Sometimes, accidents can be caused by a "careless" use of the machine by the operator.
- Pay maximum attention.
- Preserve the readability of the information signs and observe the indications given.
- Do not tamper with the safety devices and protections.
- The personnel authorised to carry out any operation on the machine has to be adequately trained.

2.1.1. EMPLOYER OBLIGATIONS

- The operator must possess the required training and meet the suitable conditions for carrying out the activities in safety conditions.
- The employer must inform the operator on the INCORRECT USES predictable and on the persistent Residual risks.
- The operator must be capable of reading and understanding the user manual and must easily identify the safety signs.
- The employer must adequately document the training obtained by the operators.

2.2. SAFETY WARNINGS FOR HANDLING AND INSTALLATION

- The personnel authorised to handle the machine (loading and unloading) must possess particular expertise in the field of intervention.
- Carry out handling (loading and discharge) according to the information delivered together with the product.
- During handling use one or two assistants, if required. This operation may generate unpredictable risks.
- In order to minimise the risks related to assistants' involvement, you must inform them priorily on the type of work and the behaviour to be used.
- The machine must be handled with the aid of specific means (crane, forklift etc.) by qualified personnel capable of observing the safety requirements.
- When using the lifting means, insert and/or fasten the devices (hooks, forks etc.) ONLY into the points provided on the package and/or the machine.
- Transport the machine suitable means of adequate capacity.
- The minimum and maximum temperature (during transport and/or storage) must fall within the range allowed in order to prevent damaging the electrical components.
- Install the machine ONLY in spaces free of explosion and /or fire risks.
- Avoid the spaces exposed to atmospheric and corrosive agents.
- Assess, prior to installation, if it is necessary to draw up a "safety plan" in order to protect the safety of the personnel involved.
- Ensure suitable safety conditions for carrying out works at height in areas difficult to reach or however dangerous.
- Install the machine according to the minimum perimeter indicated by the manufacturer and the surrounding activities.
- Should the machine interface directly/indirectly with other machines or production lines, draw up the installation design of the machine.
- The design must include all the operating conditions in order to comply with the standards in force on safety at work place.
- Check that the installation space is properly ventilated in order to avoid air concentration unhealthy for the operators.
- Apply the most suitable solutions for reducing the noise levels and the acoustic pollution to minimum.
- Carry out the electrical connections professionally and in full compliance with the instructions provided by the manufacturer and the specific regulations in force.

- The electrical connections must be carried out EXCLUSIVELY by operators with particular expertise in the field of intervention.
- The operator must test the machine and check, through a general test, that the machine can be commissioned without any risk for the operator.
- Dismantle all the packaging components in compliance with the standards in force in the country of installation.

2.3. SAFETY WARNINGS FOR USE AND OPERATION

- The operator must be trained and possess the proper knowledge required to carry out the specific tasks and must meet the conditions required for the safe use of the machine.
- When using the machine for the first time, the operator must read the manual and identify the controls and simulate some operations, especially the start-up and shutdown.
- The machine has been designed and built to satisfy all the operating conditions of the Manufacturer, and those alone.
- Use the machine ONLY with the original safety devices installed by the manufacturer.
- DO NOT tamper with, remove or bypass the safety devices installed on the machine.
- DO NOT modify the constructive and functional characteristics of the machine.
- ALWAYS wear the individual safety devices indicated in the "Instructions for use" and provided by the standards in force regarding the safety at workplace.
- ALWAYS keep the surrounding areas in suitable conditions and free of obstacles in order to minimise the risks, especially near the control station.
- The machine must be used by one operator ONLY, that must be assigned and authorised by the employer.
- The involvement of one or more assistants when performing some operations or maintenance interventions may present unpredictable risks.
- In order to minimise the risks related to assistants' involvement, you must inform them priorily on the type of work and the behaviour to be used.
- Make sure that no foreign persons are present within the machine operating area during its production activity and maintenance.
- Do not use the machine if the scheduled maintenance work has not been regularly carried out.
- DO NOT continue to use the machine if malfunctions have been detected.
- Stop the machine immediately and restart it only after the normal conditions of use have been restored.
- DO NOT carry out interventions different from those indicated in the user manual without the written consent of the manufacturer.
- Do not carry out interventions with the machine on, but only carry them out after having stopped the machine and put it in safety conditions.
- DO NOT clean or wash the machine with aggressive products to avoid damaging the components.
- Replace the components ONLY with ORIGINAL PARE PARTS or with SIMILAR design and functional features.
- Do not abandon the work post or leave the machine unguarded at the end of the work activity without having first stopped it and put it in safety conditions.

2.4. APPROPRIATE USE OF THE MACHINE

The machine should be used only for sealing with adhesive tape products packed in cardboard boxes of various sizes.

2.5. SECURITY WARNING FOR REASONABLY FORESEEABLE IMPROPER USE

- The predictable incorrect use consists of: “the use of the machine different from the indications given in the manual, that may stem from the easily predictable human behaviour”.
- The machine must be used ONLY for the uses intended by the manufacturer.
- DO NOT allow the machine to be used by operators that are not properly trained, informed and unauthorised.
- Packages that contain liquid or inconsistent products must ensure that they do not leak.

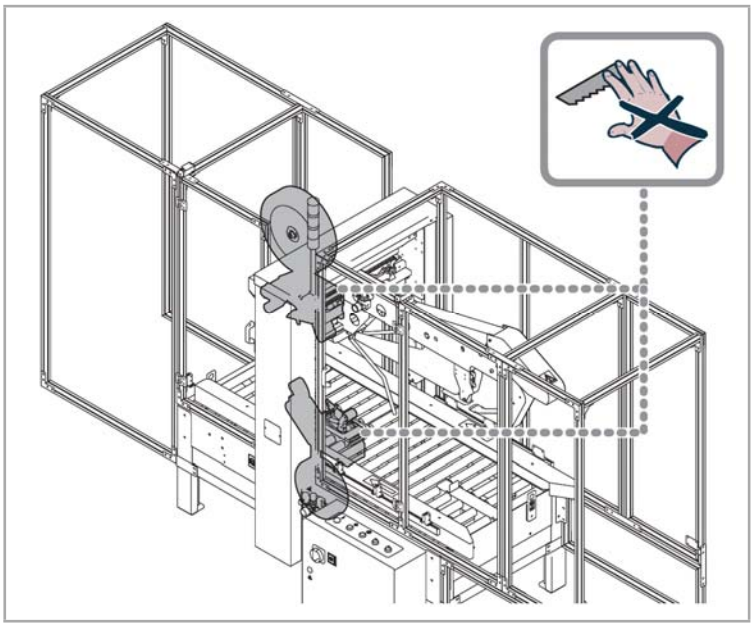
- Do not tape loose, irregularly shaped and not properly collected products, so as to avoid inadequate packaging.
- Do not use the machine to wrap and stabilise living beings (animals and humans).
- Do not use the machine with adhesive tape different from that provided by the Manufacturer.
- Do not use the machine as a workbench.
- DO NOT use or let the machine be used for purposes or in ways not provided by the manufacturer.
- DO NOT use or make use of machines with defective, deactivated and/or not perfectly installed safety devices.
- DO NOT continue to use the machine if malfunctions have been detected.
  Stop the machine immediately and restart it only after the normal conditions of use have been restored.
- NEVER carry out an intervention with the machine enabled but ONLY after having stopped it properly, under safety conditions.
- NEVER use the machine without wearing the Personal Protective Devices indicated by the manufacturer and required by current workplace laws.
- NEVER use the machine if the scheduled maintenance interventions have not been carried out accordingly.
- DO NOT clean or wash the machine with aggressive products to avoid damaging the components.
- DO NOT replace the components with non-original spare parts or with different design and constructive features.
- DO NOT leave the machine unattended at the end of the work without shutting it down first in safety conditions.

2.6. SAFETY WARNINGS ON RESIDUAL RISKS

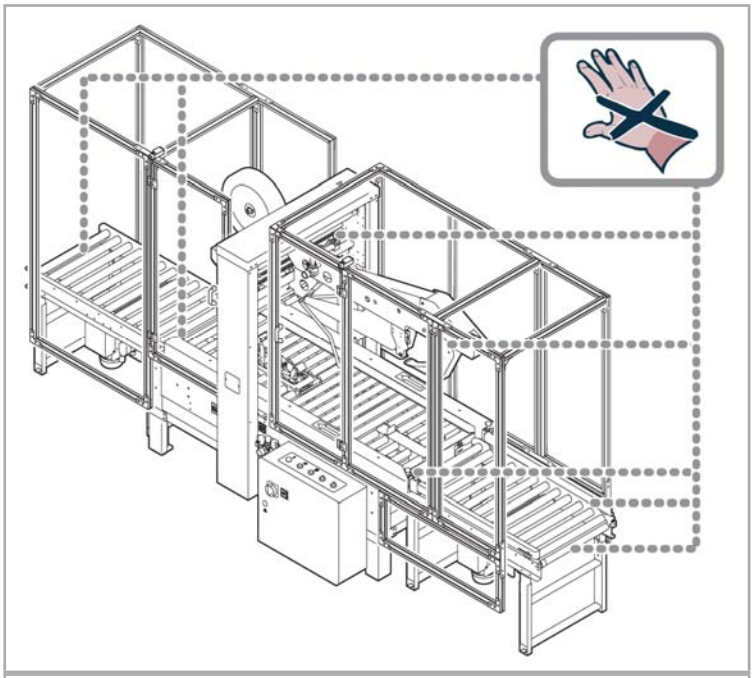
- The purpose of this information is to make the user aware to pay special attention in order to foresee any risk.
- When designing and building the machine, the manufacturer has paid particular attention to the RESIDUAL RISKS that may affect the safety and health of the operators.
- The residual risks are: “all the risks that persists although all safety solutions have been applied and integrated during machine design”.
- The manufacturer has complied with the specific standards in force and applied all the "good manufacturing regulations".

The list specifies the residual risks specific for this type of machine.

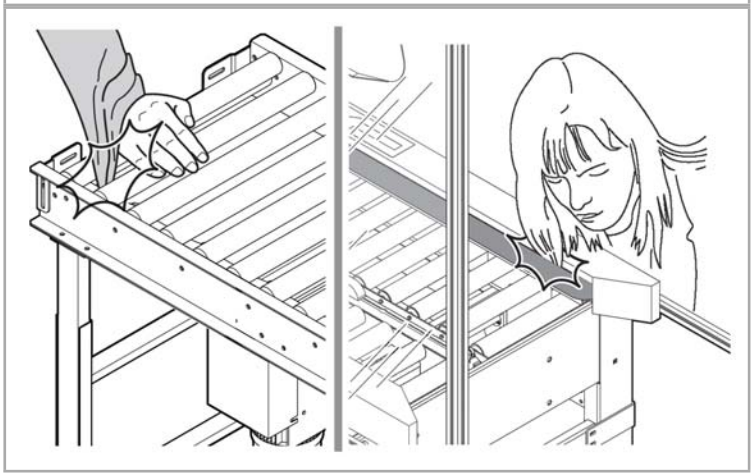
- Danger of arms cutting: do not put your hands inside the taping unit.



– Danger of arms crushing: do not put your hands inside the moving organs.



– Danger of entanglement: Do not get close to the conveying belts to avoid getting entangled with parts of the body or clothes.



2.7. SAFETY WARNINGS FOR REGULATIONS AND MAINTENANCE

— Keep the machinery in maximum efficiency condition and perform all the scheduled maintenance operations provided for by the manufacturer.
Proper maintenance will provide the best performance, a longer life span and constant compliance with safety requirements.

Important

Maintenance work and adjustments shall be carried out by qualified, authorised personnel.

— Take all necessary precautions (suitably mark the working area and the exits, ensure proper visibility, provide all necessary supporting equipment, etc.) to ensure safe operation.
— Delimitate the work area to minimise the risks, as per the workplace safety and health regulations.
— Enable all machine safety devices before performing any maintenance and regulation operations.
— Maintenance work in hard to access areas shall be carried out only after having removed any existing risks.
— DO NOT use products that contain corrosive, toxic and inflammable substances.
— Wear the Individual Protection Devices provided by the laws on workplace safety and indicated in the "Instructions for use" and/or affixed to the machine.
— Replace the components only with original spare parts or with parts with similar design and functional characteristics so as to keep the intended safety level unchanged.
— Use lubricants (oils or grease) recommended by the manufacturer or with similar chemical-physical features.
— Do not dump into the environment polluting liquids, worn parts and maintenance waste.
— Dispose of the same in compliance with current regulations on the matter.
— Select the components according to the chemical and physical features of the material and carry out the differentiated waste disposal as per the standards in force.
— Follow the procedures in this chapter.
— Non compliance with the instructions given may cause risks for safety and health of the persons and economic damages.

2.8. SAFETY WARNING FOR ELECTRICAL EQUIPMENT

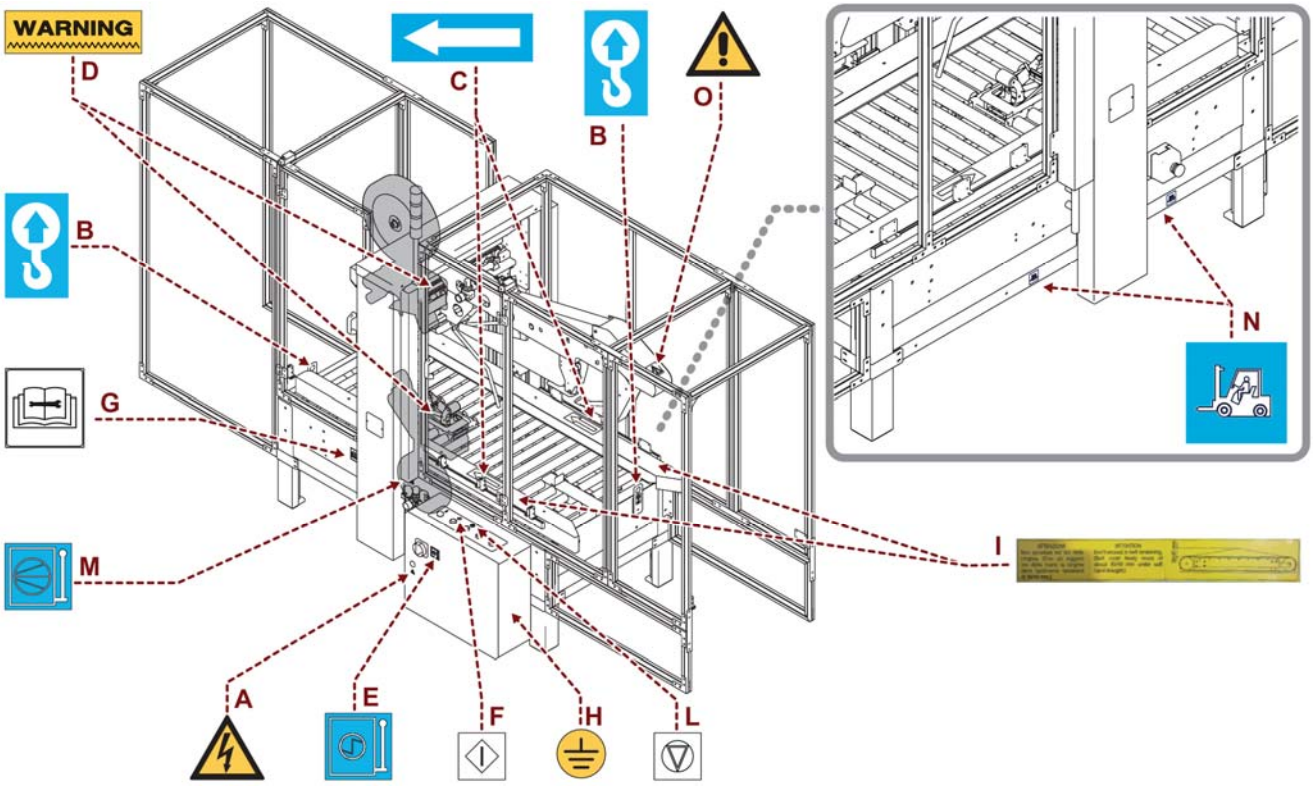
The electrical system has been designed and built in compliance with applicable legislation.
This legislation also specifies the ambient conditions required for operation.
The following list specifies ambient conditions necessary to ensure correct electrical system function.

— Ambient temperature must be between **0°C**°C and **40°C**.
— Relative humidity must be between **50%** (measured at **40°C**) and **90%** (measured at **20°C**).
— The installation area must not be subject to or contain sources of electromagnetic interference or radiation (X rays, laser light etc).
— The installation area must not contain potentially explosive or flammable mixtures of gases or dust.
— No contaminant or corrosive products (acids, chemicals, salts etc.) may be used during production and maintenance. Any products used must be kept away from electrical components.
— The ambient temperature during storage must be between **- 25°C** and **55°C**.
— Electrical equipment may be exposed to temperatures up **70°C**, provided that exposure does not exceed **24** hours.
— The electrical system will function correctly up to an altitude of **1000 m** above sea level.

If any of the aforementioned conditions cannot be met, any additional measures necessary to ensure safe operating conditions (e.g. special electrical components, air conditioning systems etc.) must be defined during the contractual stage.

2.9. INFORMATION AND SAFETY SIGNALS

The figure indicates the position of the safety and information signs affixed to the machine.



For each sign is specified the relative description.

A) Electrical hazard sign.
Do not access this area: risk of electrical shock or electrocution.

B) Information sign.
Indicates the points for lifting with a hook device (do not use).

C) Information signal: indicates the operating direction of the conveying belt.

D) Danger signal: indicates danger of hands cutting.

E) Information sign: it indentified the power cut-off switch.

F) Information sign: machine Start symbol.

G) Mandatory sign: it indicates the obligation to read the entire documentation before using the machine.

H) Information sign: it indicates the connection point for earthing the machine.

I) Information sign: it indicates the tension to be applied to the conveyor belt (the adhesive is located inside the casing).

L) Information signal: machine Stop symbol.

M) Information signal: identifies the pneumatic disconnecting switch.

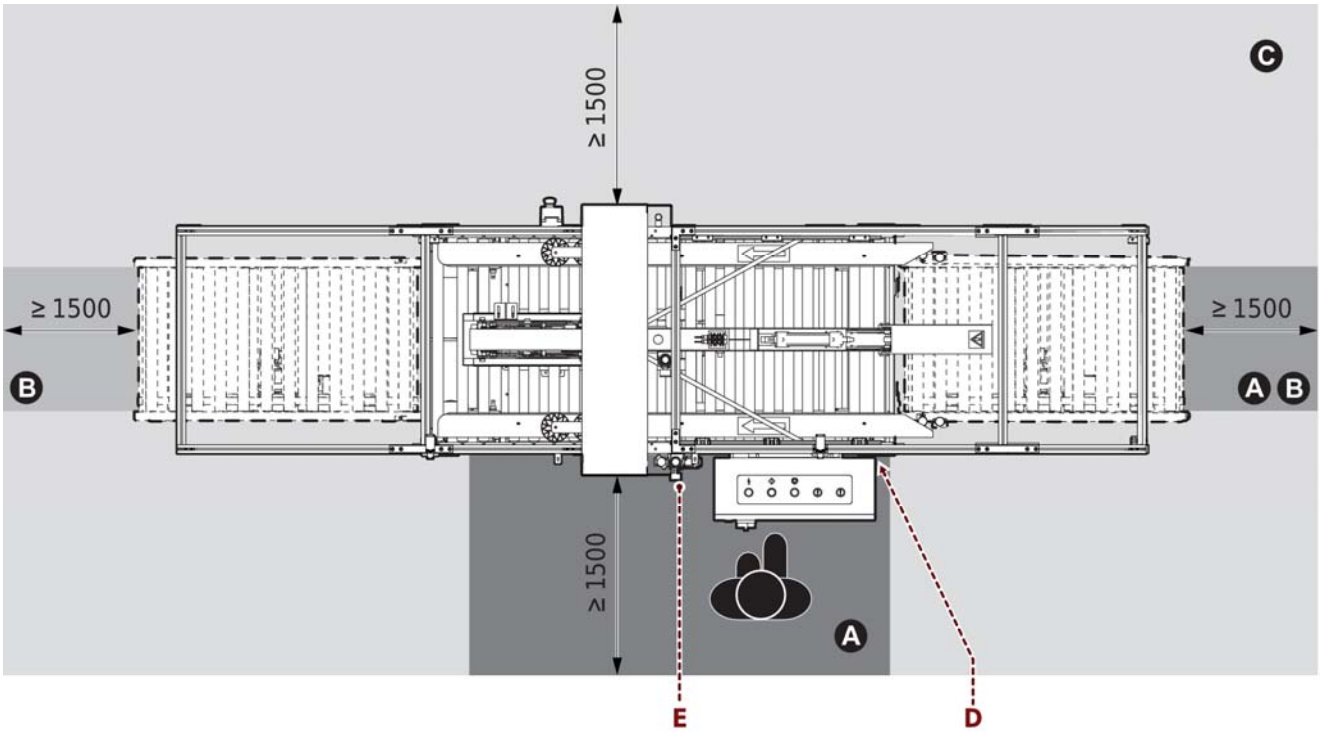
N) Information signal: indicates the lifting points with a fork device.

Important

Check that the plates are clearly readable, and, if necessary, replace them with new ones that shall be positioned in the same places as previously.

2.10. SURROUNDING AREAS

The illustration depicts the perimeter work areas of the machine.



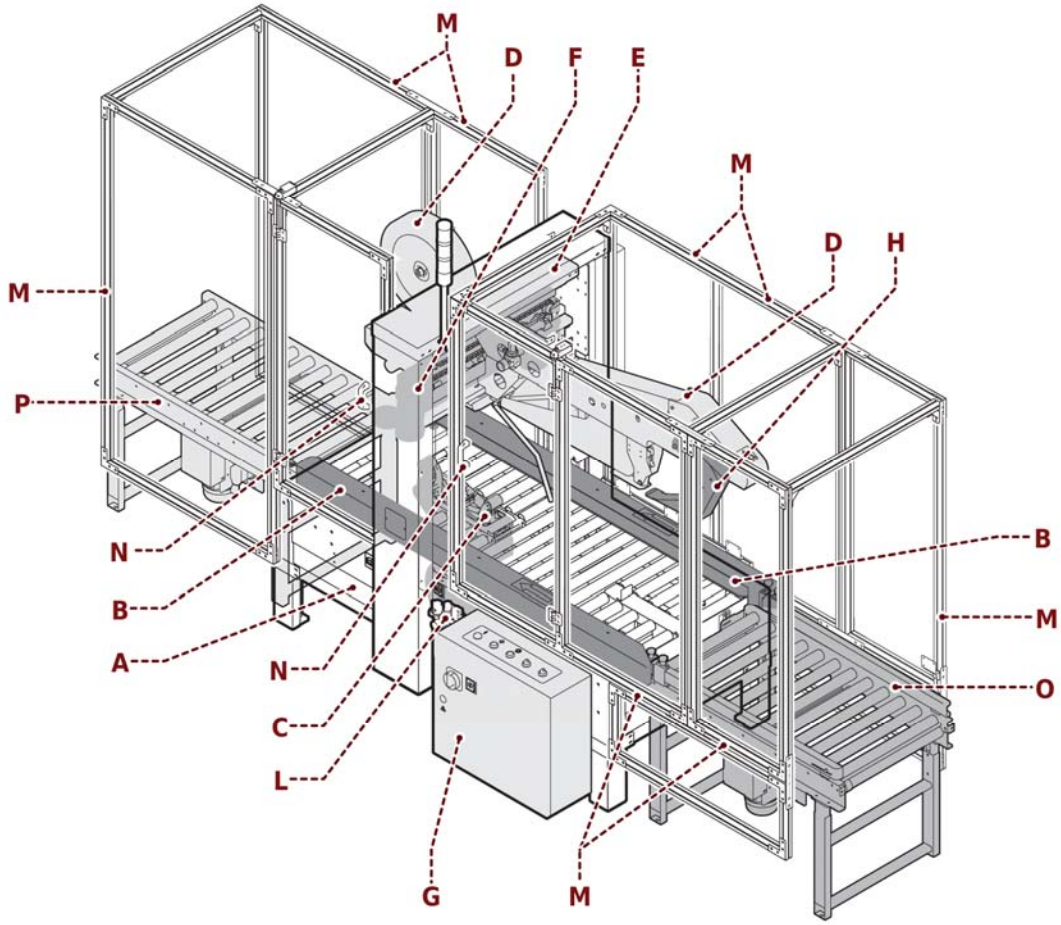
A) Operator's working area.
B) Box loading/unloading area.
C) Sorrounding area.
D) Electric power point.
E) Compressed air connection point.

3. TECHNICAL INFORMATION

3.1. MACHINE GENERAL DESCRIPTION

- The auto-sizing taping machine with manual adjustment is a machine designed and built to close, with adhesive tape, products packaged in cardboard boxes in various formats.
- Use machine only for the purposes set forth by the manufacturer. improper use of machine can cause risks to safety and health of persons, further to economical damage.
- The machine enables sealing small casings with the dimensions indicated in chapt. “Technical specifications”.
- It can house two taping units **T50** or **T75** that use wide adhesive tape rolls **25÷50 mm** and **25÷75 mm** respectively, available on the market.
- The packs that contain liquids or insubstantial materials must be suitable for the product and must be perfectly closed and tight in order to prevent any leaks of the content.
- It is equipped with a series of safety devices designed to avoid anyharm befalling the operator or other persons who come into contactwith the machine in any way. The machine is produced in a range ofdifferent models in order to suit market requirements.
- This machine is normally installed in workshops or industrial environments protected from the atmospheric agents.
  Use of this machine in explosive environments or when exposed to the elements is strictly forbidden.
- Only one operator is required to use it to load and unload the boxes and change the coil.

The illustration shows, in a purely indicative manner, the main features.

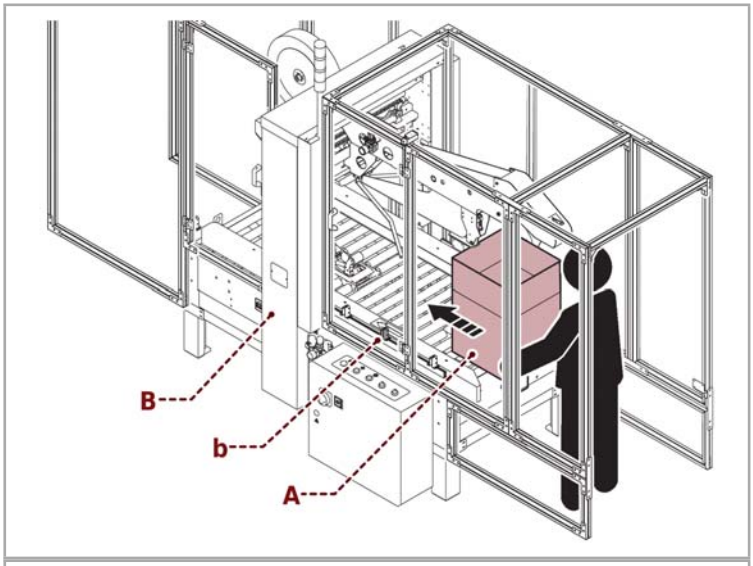


A) Base
B) Transport unit: it transports the box during the taping phase and aligns it in the middle of the taping units.
C) Bottom taping unit: accomplishes the taping operation of the bottom part of the box.
D) Top taping unit: accomplishes the taping operation of the top part of the box.
E) Lifting table: it places the top taping unit at boxes height.
F) Side pressers: keep the side layers of the box leaned up during the taping.
G) Electric panel
H) Flap closing device
L) Compressed air treatment/adjustment unit
M) Fixed guards: avoid access to the inner parts of the machine.
N) Movable safety guards: avoid access to the inner parts of the machine.
O) Entrance carrier (optional): allows to transport and space the product to be taped; consists of a motorized roller conveyor.
The carrier comes with guides that can be connected to the machine’s conveyor belts and allow the box to be taped to reach the centre of the machine surface.
P) Output carrier (optional): allows to transport the taped product ready to be taken at the exit; consists of a motorized roller conveyor.

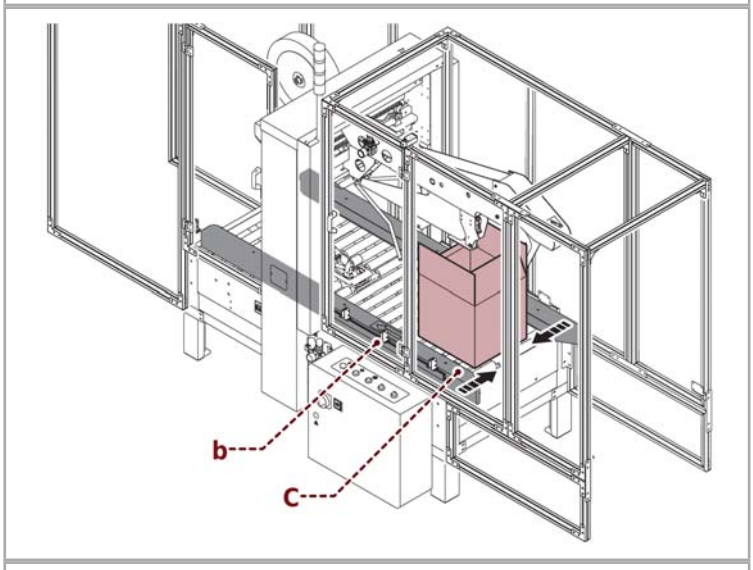
3.2. DESCRIPTION OF THE OPERATION CYCLE

1. Switch the machine on (see “Switching the machine on and off”).

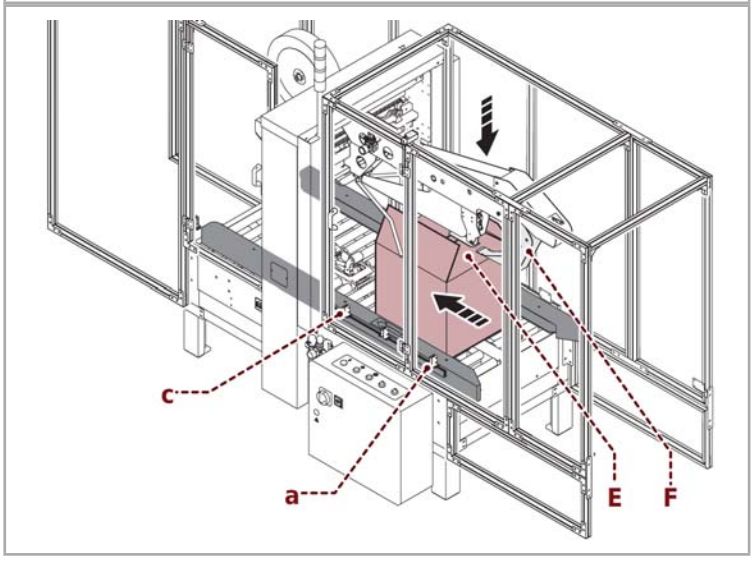
2. Place box **(A)** at the inlet of machine **(B)**, between the conveyor belts.
If the machine is equipped with the "entrance carrier" option, position the box above it: the box will advance until it covers the **(b)** "tape closure" photocell.



3. The **(b)** photocell detects the box, the carriers (if present) stop, the **(C)** conveyor belts automatically adapt to the width of the box to be taped and begin to move the box on.



4. The box moves forward and activates the **(c)** photocell, the carriers and conveyor belts are stopped, the bridge comes down and the conveyor belts are re-started.
Once it meets photocell **(a)**, the flap closure **(F)** comes down to close the **(E)** layer.



5. The box continues to move forward to close the other flaps and to be sealed with adhesive tape.

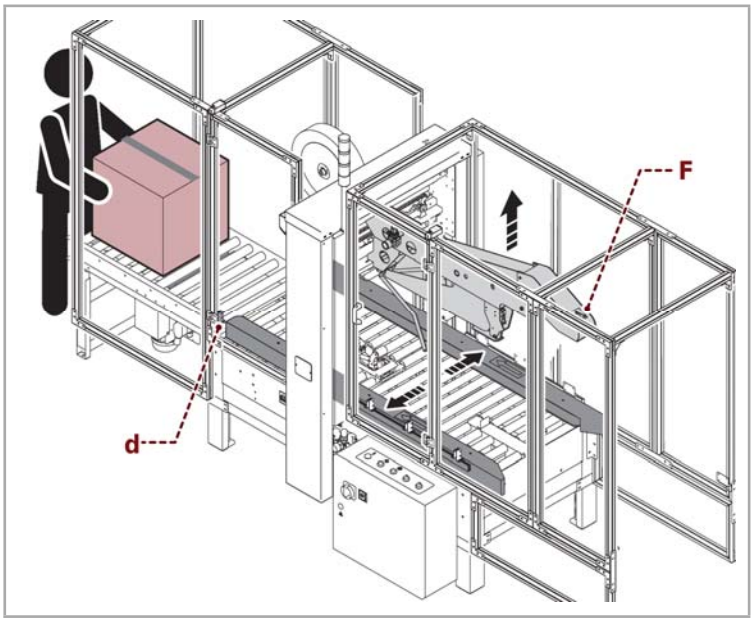
6. The taping machine automatically closes the top and bottom part of the box.

Caution

Depending on the options chosen on the control panel, the machine can tape only the lower part of the box or let the box pass by without taping it.

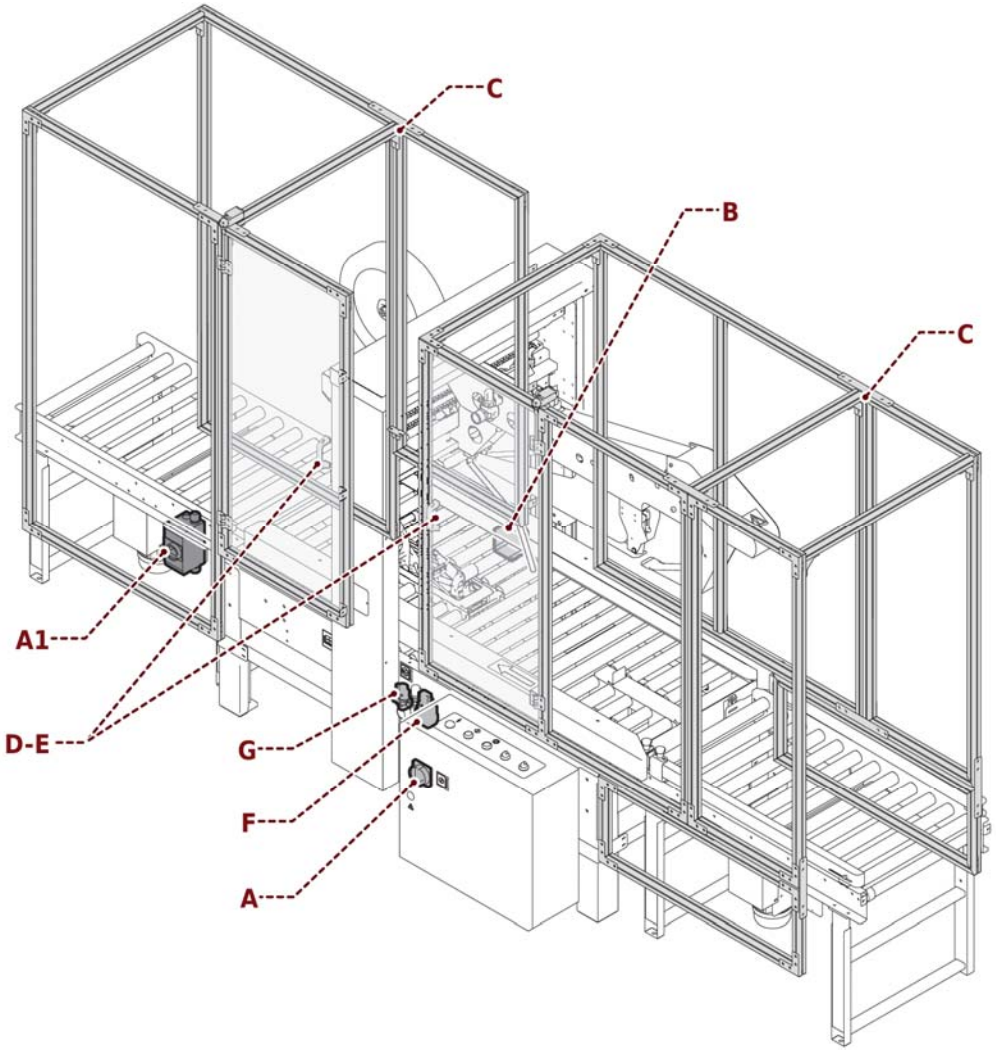
7. The **(F)** flap closing unit goes up automatically.
The box comes out of the tapes and meets the **(d)** "unload" photocell.
The side pressers open, the lift bridge rises, the tapes open.

8. The operator picks up the box exiting the machine.
The cycle ends and the machine is ready to start a new one.



3.3. SAFETY DEVICE DESCRIPTIONS

The figure shows the positioning of the devices on board of the machine.



A-A1) Main disconnecting switch (lockable): used to activate and deactivate the machine's electrical power supply.
It comes with a padlock to prevent unauthorised personnel from activating the power supply.

B) Emergency button; the machine stops immediately when this button is pressed in emergency situations.
To reset, rotate the button in the direction indicated by the arrow.

C) Fixed guard: outside structure which prevents the operator accessing.

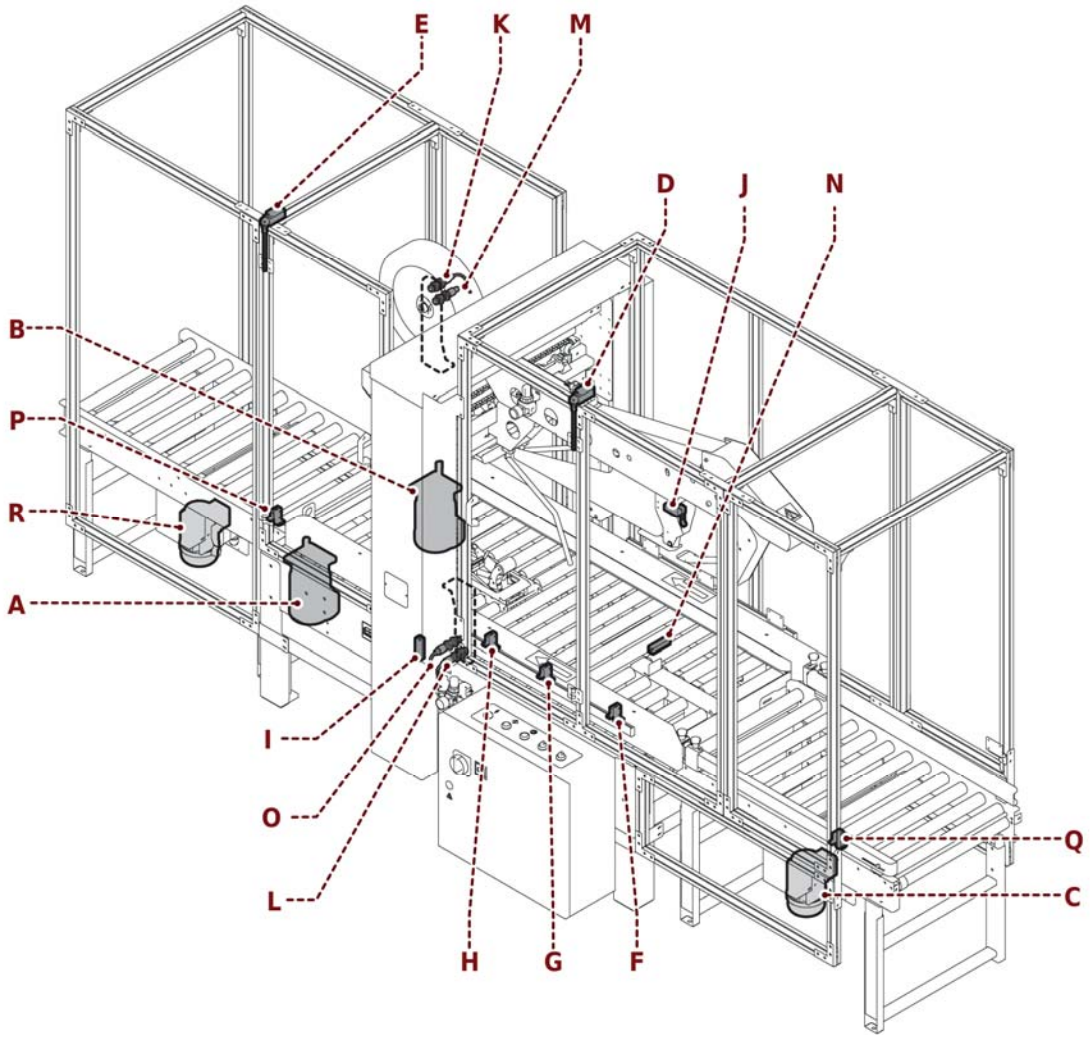
D-E) Interlocked mobile guard: allows the operator to access the interior of the operating area.
It is a door associated with an electric interlock device. Upon opening the machine stops immediately.
Its restart is only possible upon closing of the door and restoring of the cycle.

F) General exhaust solenoid valve: closes the compressed air inlet line when the machine is not electrically powered or when it is stopped in emergency conditions.

G) General disconnecting switch (can be padlocked): used to activate and deactivate the pneumatic supply. Can be padlocked and prevents the pneumatic activation by unauthorised persons.

3.4. DESCRIPTION OF THE ELECTRICAL DEVICES

The figure shows the positioning of the devices on board of the machine.



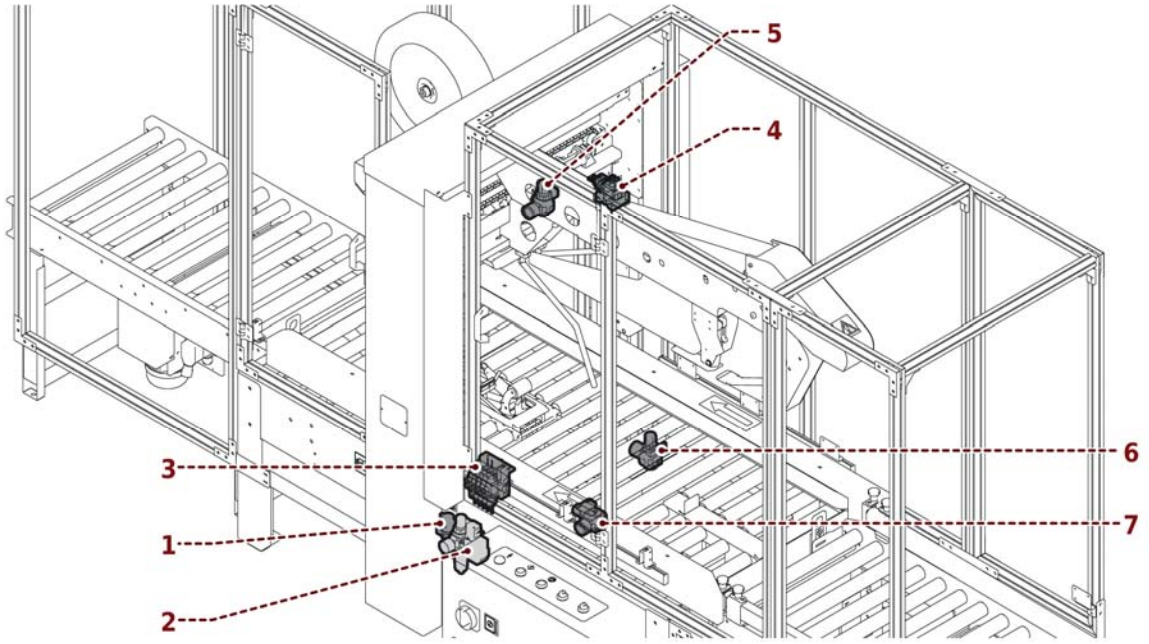
A) gear motor: it enables the movement of the left conveyor belt.
B) gear motor: it enables the movement of the right conveyor belt.
C) Gear motor: activates the movement of the entrance carrier (Optional).
D) "Entrance guard" limit switch: detects the opening of the protective guard upon entry.
E) "Exit guard" limit switch: detects the opening of the protective guard upon exit.
F) “Flap cover” photocell: detects the passage of the product and commands the functioning of the rear flap cover.
G) “Tape closure” photocell: detects the passage of the product and commands the closure of the conveyor belts.
H) “Downward bridge” photocell: detects the passage of the product and commands the descent of the lifting bridge.
I) "Bridge up" sensor: detects the complete lifting of the lifting bridge.
J) "Bridge down" limit switch: detects the descent of the lifting bridge on the product.
K) "Upper head tape deficiency" photocell: detects that the tape on the upper taping unit head is running out.
L) "Lower head tape deficiency" photocell: detects that the tape on the lower taping unit head is running out.
M) "Upper head tape breakage" sensor: detects the breakage/end of the tape on the upper taping unit.
N) “Open tapes” sensor: detects the complete opening of the conveyor belts.
O) "Lower head tape breakage" sensor: detects the breakage/end of the tape on the lower taping unit.

P) "Unload" photocell: detects the output of the product from the machine and commands the end of the cycle.
Q) "Input" photocell: detects the entry of the product into the machine.
R) Gear motor: activates the movement of the roller conveyors of the out-feed conveyor (Optional).

Important
For further details see the electrical diagram.

3.5. PNEUMATIC DEVICE DESCRIPTION

The figure shows the positioning of the devices on board of the machine.



1) Tap: to eliminate the pneumatic pressure inside the machine.
2) Reducing valve with filter and manometer: this is needed to regulate the system's general pressure. Turn knob to change the pressure values indicated on the pressure gauge.
3) Solenoid valves bank:
- Solenoid valve: To eliminate the pneumatic pressure inside the machine in case of an emergency Stop.
- Solenoid valve: activates the up/down bridge lift actuator.
- Solenoid valve: activates the bridge lift brake actuator.
- Solenoid valve: activates the "stopper" device actuator.
- Solenoid valve: activates the tape opening/closure actuator.
- Solenoid valve: activates the tape brake actuator.

4) Solenoid valves bank:
- Solenoid valve: activates the side pressers actuator.
- Solenoid valve: activates the flap closure device actuator.

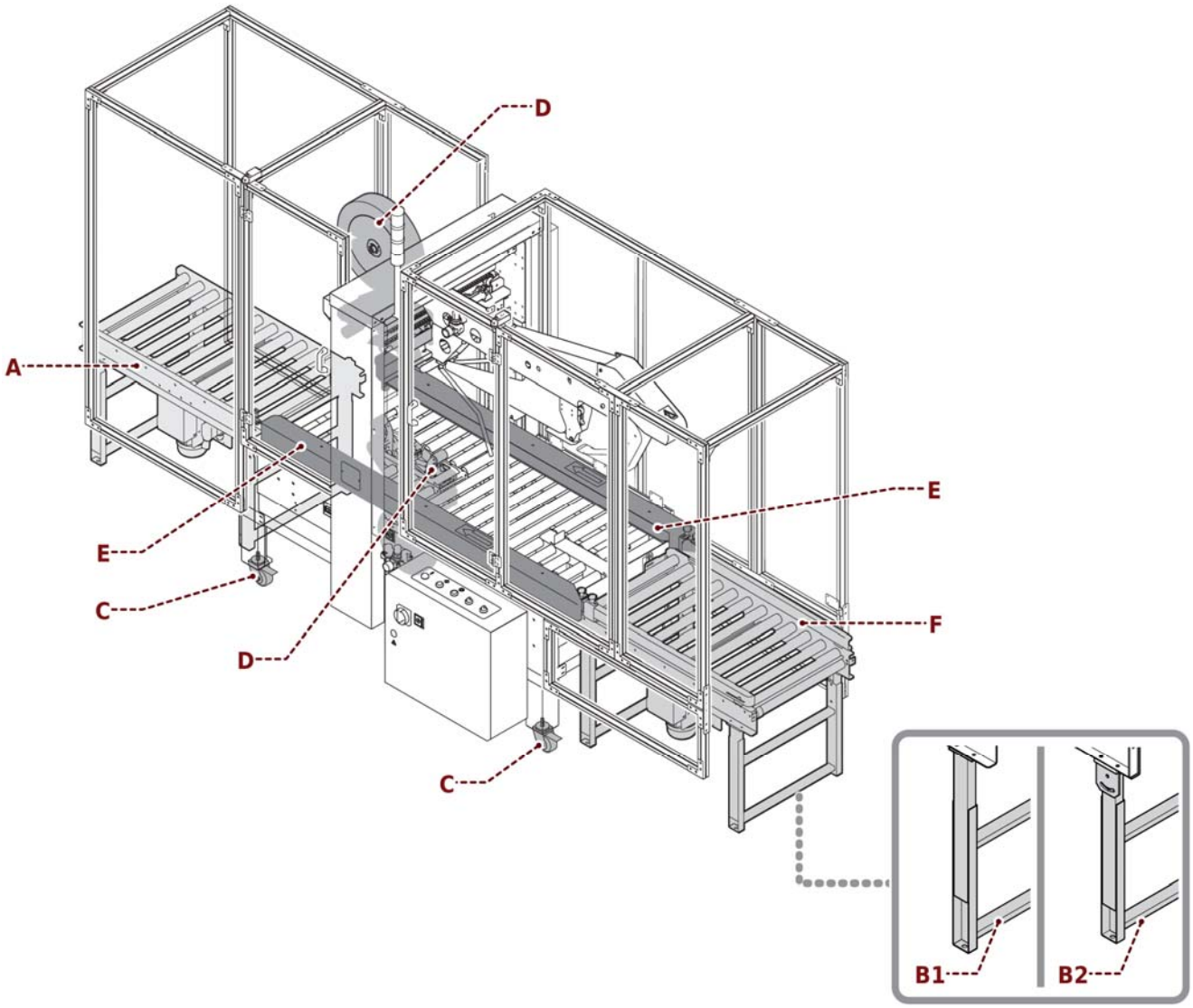
5) Reducing valve of the pneumatic cylinder flap closure.
6) Reducing valve of the pneumatic cylinder of the side guides.
7) Reducing valve of the pneumatic cylinder of the bridge lift.

Important
These regulators are calibrated by the manufacturer. Do not modify them.

Important
For further details see the pneumatic diagram.

3.6. ACCESSORIES AVAILABLE UPON REQUEST

To enhance the performance and to increase the versatility of the machine, the manufacturer furnishes the accessories listed below.

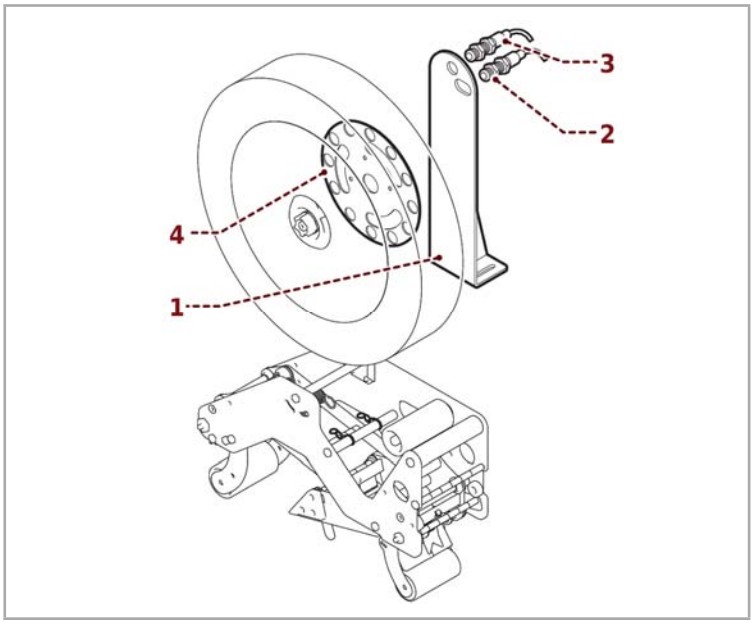


A) Out-feed product conveyor **(L=1000 W=500)**.
B1) Feet for height adjustable carriers.
B2) Feet for height and tilting adjustable carriers.
C) Casters.
D) Taping units **T50 - T75 - T75/30**.
E) Conveying unit increase in height **(H=75 mm)**.
F) Motorized product entrance carrier with self-centring **(L=1000 W=500)** system.
— Single phase motor **230V - 50Hz**.

3.6.1. DESCRIPTION OF THE TAPING UNIT

The taping unit in question serves to tape cardboard boxes of pre-defined sizes.
For any information regarding the taping unit, refer to the specific manual attached to this publication.
Compared to the taping unit described, the one installed on the machine has some more components described below.

1) Sensors support plate.
2) Lack of adhesive tape sensor (upper and lower).
3) Adhesive tape breakage/end sensor (upper and lower).
4) Slotted plate.



3.7. TECHNICAL SPECIFICATIONS

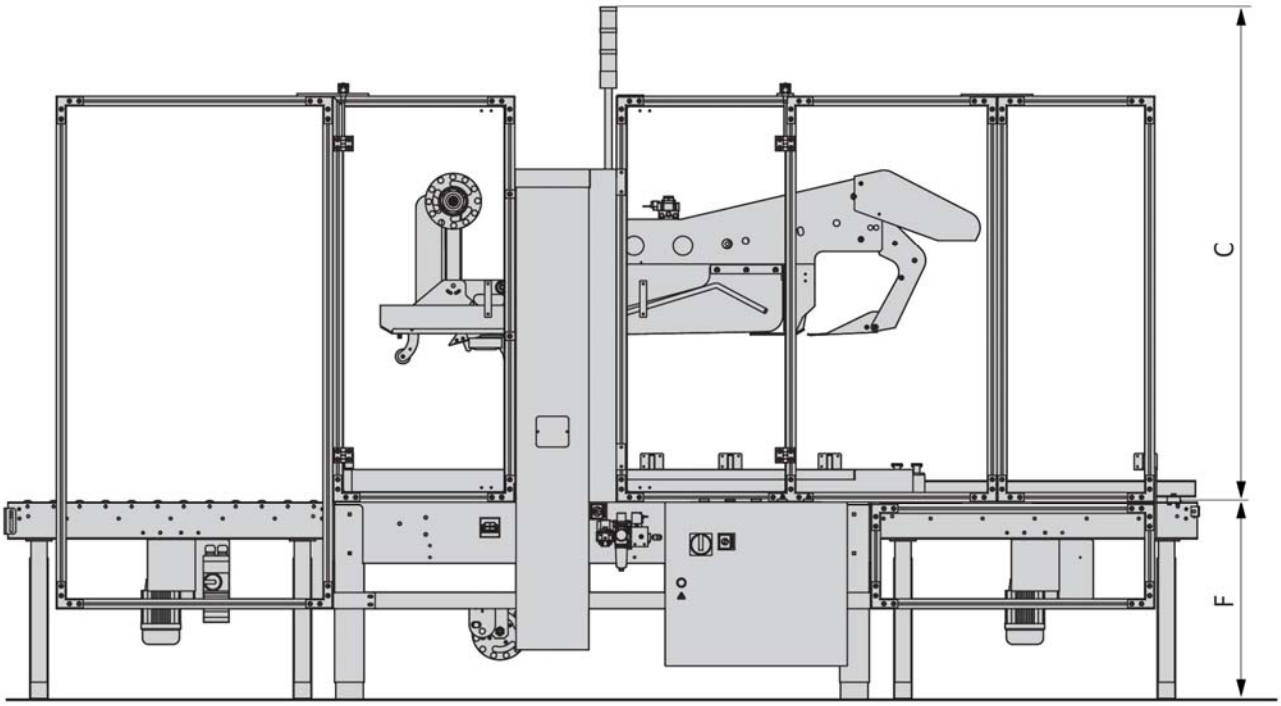
The figure and table specify the dimensional characteristics and technicaldata of the machine.

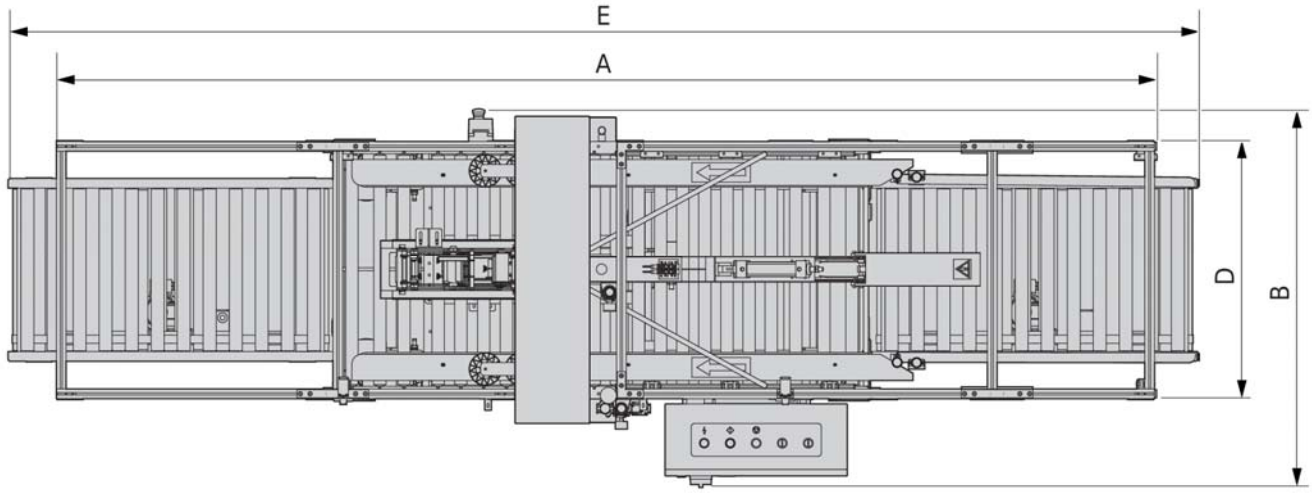
Description		*ROBOTAPE 50 CFA*
Infeed speed.		22 m/min
Net weight of standard machine (with 2 T50).		510 kg
Supply voltage (Standard).		400V 3Ph 50Hz + N + T
Installed power.		0,4 kW (0,6 kW*)
Conveyor belts height (Standard).		50 mm
Conveyor belts height (Optional).		75 mm
Ambient operating temperature.		0÷40 °C
Protection grade.	Electrical system.	IP 54
Protection grade.	Electric motors.	IP 54
Operating pressure pneumatic system.		6±1 bar (0,6±1 MPa)
Air consumption per cycle (Pneumatic system).		8 Nl
Consumption air/min (Pneumatic system).		50 Nl/min
Taping unit for adhesive tape up to 50 mm with end section 50/70 mm (top/bottom or only top).		([1])
Taping unit for adhesive tape up to 50 mm with end section 30 mm (top/bottom or only top).		([1])
Taping unit for adhesive tape up to 75 mm with end section 50/70 mm (top/bottom or only top).		([1])
Min working height (mm) without/with wheels.		570/675
Max working height (mm) without/with wheels.		750/855
Boxes/minute (with mm W300xh300xL500 boxes).		8

([1]) Available

* With “motorized roller conveyor entrance” optional.

3.7.1.MACHINE DIMENSIONS





Description	*Value (mm)*
A	3382
B	1160
C	1515
D	796
E*	3656
F	min. 570 max. 675
F (Optional)	min. 750 max. 855

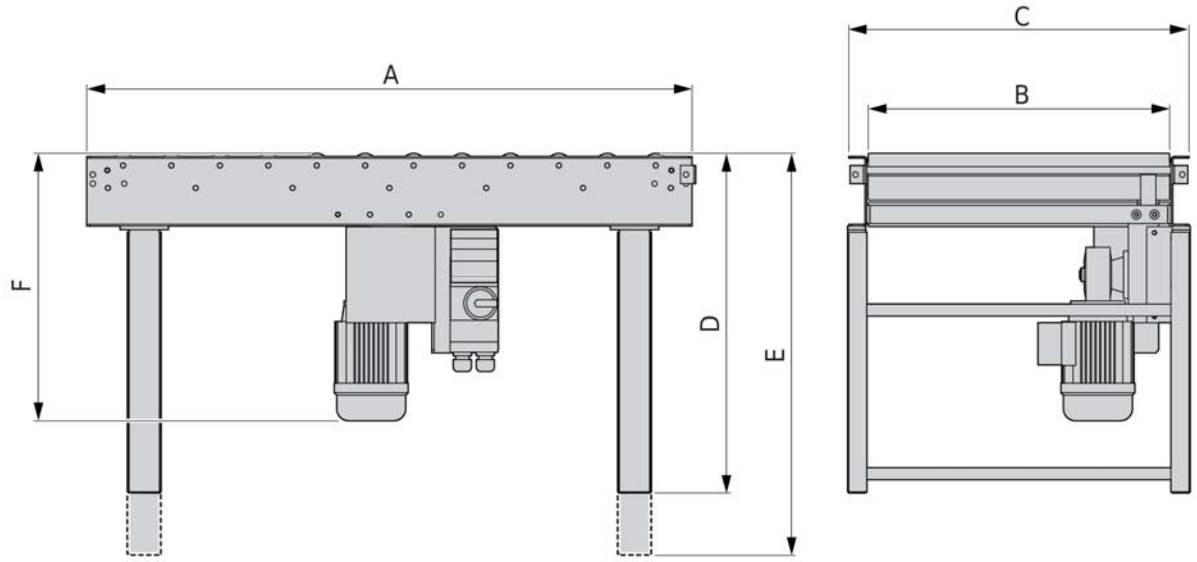
* With optional carriers.

3.7.2.TECHNICAL SPECIFICATIONS OF INFEED AND OUTFEED CONVEYORS (OPTIONAL)

The following table shows the technical specifications of the conveyors.

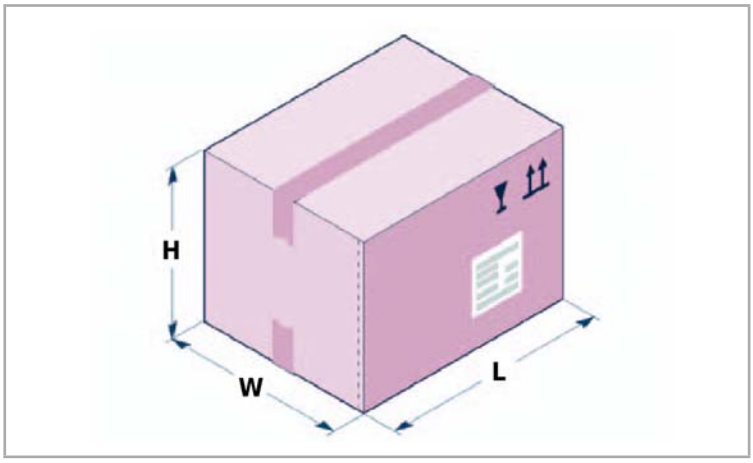
Description	*Carrier*
Forward speed.	20 m/min
Supply voltage.	400V 3Ph 50Hz + T
Installed power.	0,18 kW
Ambient operating temperature.	0÷40 °C
Useful transport width.	500 mm

3.7.3.SIZES OF CONVEYORS (OPTIONAL)



Description	*Value (mm)*
A	1000
B	500
C	562
D	562
E	892
F	443

3.7.4.BOX DIMENSIONS



Description	ROBOTAPE 50 CFA
L min.	150 mm
L max.	650 mm
W min.	110 mm
W max.	500 mm
H min.	110 mm
H Max.	500 mm
Max weight.	50 kg

3.8. NOISE LEVEL

The noise levels were measured in compliance with the:
- ISO 4871
- ISO 11201
- ISO 3744 standards

Important

The noise level can vary according to the type of adhesive tape used.

Description	Lm dB (A)	Lw dBw (A)	Lw mW (A)	Lop dB (A)	Lpf dB
Empty operation	xx.x	xx.x	xx.x	xx.x	-
Functioning in working conditions	xx.x	xx.x	xx.x	xx.x	77,6

Lm - Average level of pressure on the measurement surface.
Lw - Acoustic power output.
Lop - Level at the operator's place.
Lpf - Surface sound pressure level.
xx.x - Values being determined.

Caution - Warning

Prolonged exposure over **80 dB (A)** may cause health problems. The use of appropriate protection systems is recommended (headphones, ear plugs, etc.).

3.9. INSTALLATION ENVIRONMENT CHARACTERISTICS

Careful consideration must be given to the place where the machine is to be installed, in order to ensure that it may be easily operated, without creating any unnecessary risks for personnel. Therefore we suggest the following prerequisites.

- suitable room temperature (See "technical specifications").
- A suitably aired place so that when the machine is working, the degree of humidity is not unpleasantly high/low from the point of view of the operator.
- A sufficient lighting in order that a pleasant, relaxing working environment is created for the operator.
- a boundary area that must be left around the machine for safety rea-sons (See "surrounding areas").
- a flat surface, steady and without vibrations with adequate weight supporting capacity, also in consideration of the palletised loads to be wrapped.
- The area must be equipped with a power supply socket.

Danger - Warning

Use of this machine in explosive environments or when exposed to the elements is strictly forbidden.

4. INFORMATION ON HANDLING AND INSTALLATION OPERATIONS

4.1. RECOMMENDATIONS FOR HANDLING AND LOADING

Important

Accomplish handling and loading according to the instructions supplied by the manufacturer to be found on the machine and in the operating instructions. The person authorized to accomplish these operations must, if necessary, organise a "safety plan" to guarantee safety to the persons directly involved.

Use normal lifting equipment and means of transport, in accordance with the instructions to be found on the packaging itself.

Those persons responsible for lifting and transportation operations must decide which are the most suitable means according to the machine's destination.

Carefully read the "Instructions for use" specified in the manual and those applied directly to the machine and/or the package.

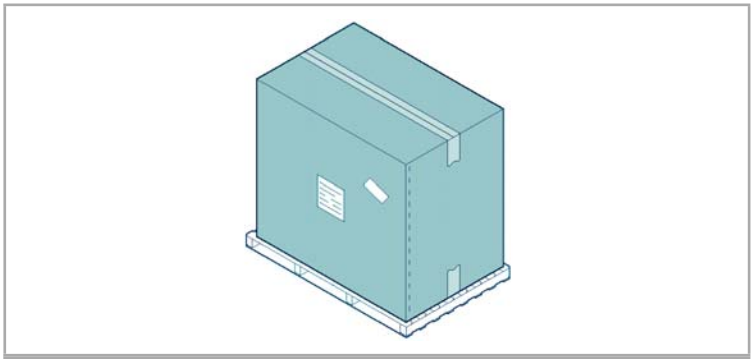
Provide suitable safety conditions in compliance with the regulations on workplace safety to prevent and minimise the risks.

Pay attention to the SAFETY WARNINGS, do not use the machine for UNSPECIFIED PURPOSES and assess the possible RESIDUAL RISKS.

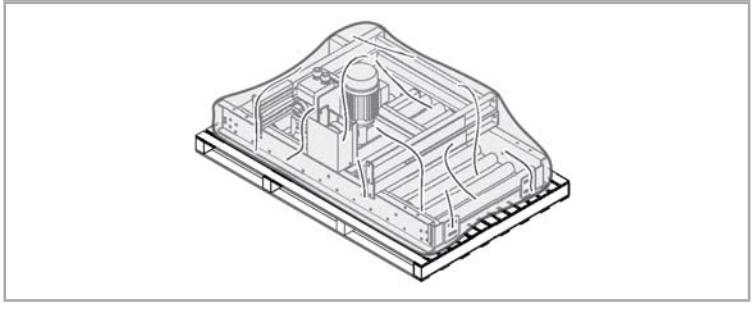
4.2. PACKAGING AND UNPACKING

- The packing is realised, keeping the overall dimensions low, also in consideration of the transport chosen.
- To facilitate transport, shipping can be performed with some components disassembled and appropriately protected and packaged.
- Some parts, especially electric equipment, are protected with anti-moisture nylon covers.
- The cases are marked with all necessary information for loading and unloading.
- During unpacking, check the integrity and exact quantity of components.
- Packaging material should be appropriately disposed according to the laws in force.
- The figure shows the type of package used.

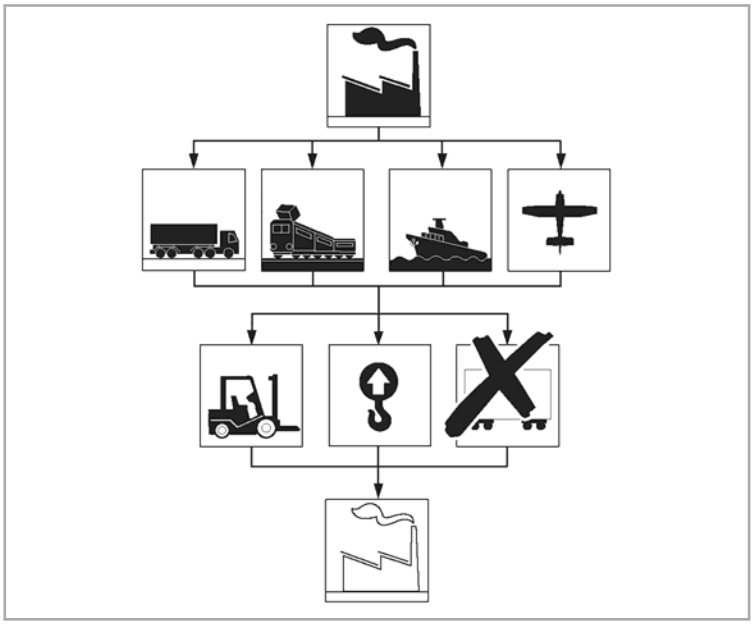
Cardboard box packaging
(Only **CFA**)



Packaging on pallet with protective nylon
(Only carriers)



4.3. TRANSPORT AND HANDLING



Transport, also according to the destination, can be performed by different vehicles.
The diagram represents the most popular solutions.
During transport, with the purpose to avoid sudden movements, adequately anchor the machinery to the means of transportation.

Important

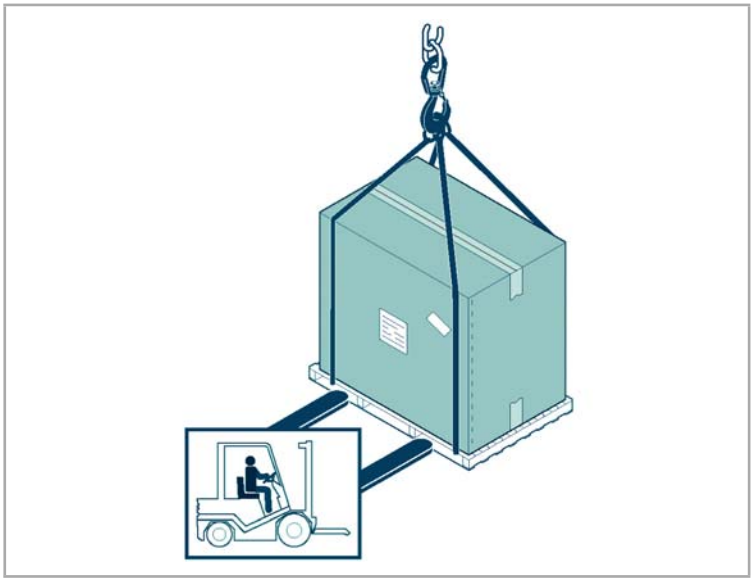
For further transportation, recreate the initial packaging conditions for transport and handling.

The machine can be handled with a fork or hook lift truck having adequate capacity.
Position a lifting device as indicated in the figure.

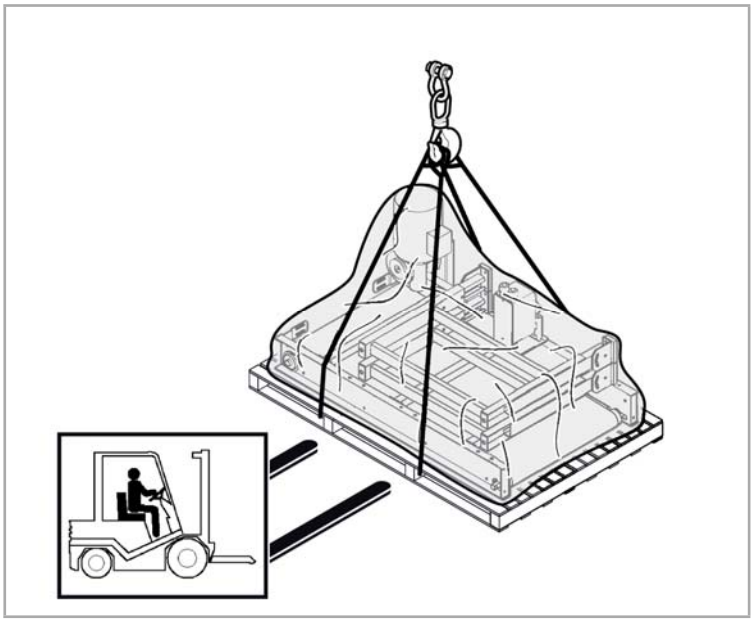
Caution - Warning

Before lifting the machine, check for centering position of the load.

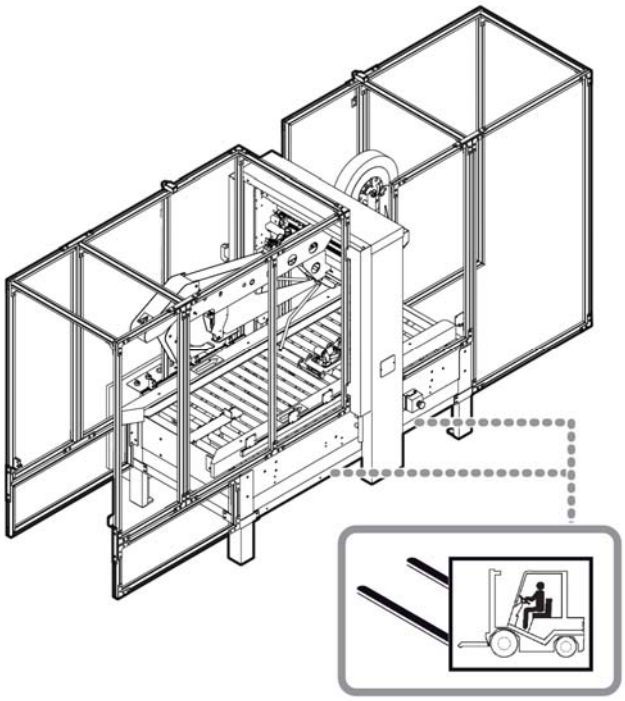
Cardboard box packaging
(Only **CFA**)

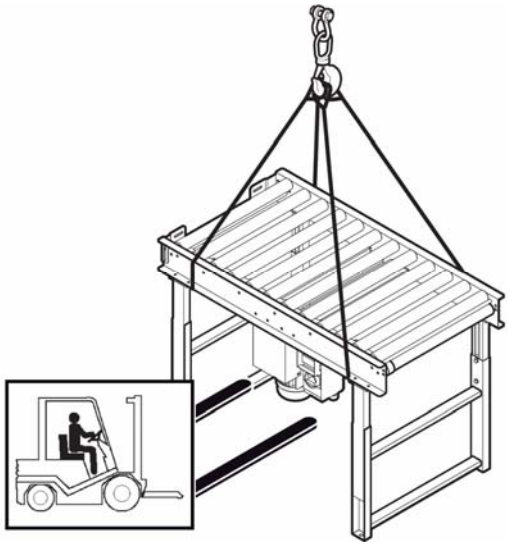


Packaging on pallet with protective nylon
(Only carriers)



without packaging

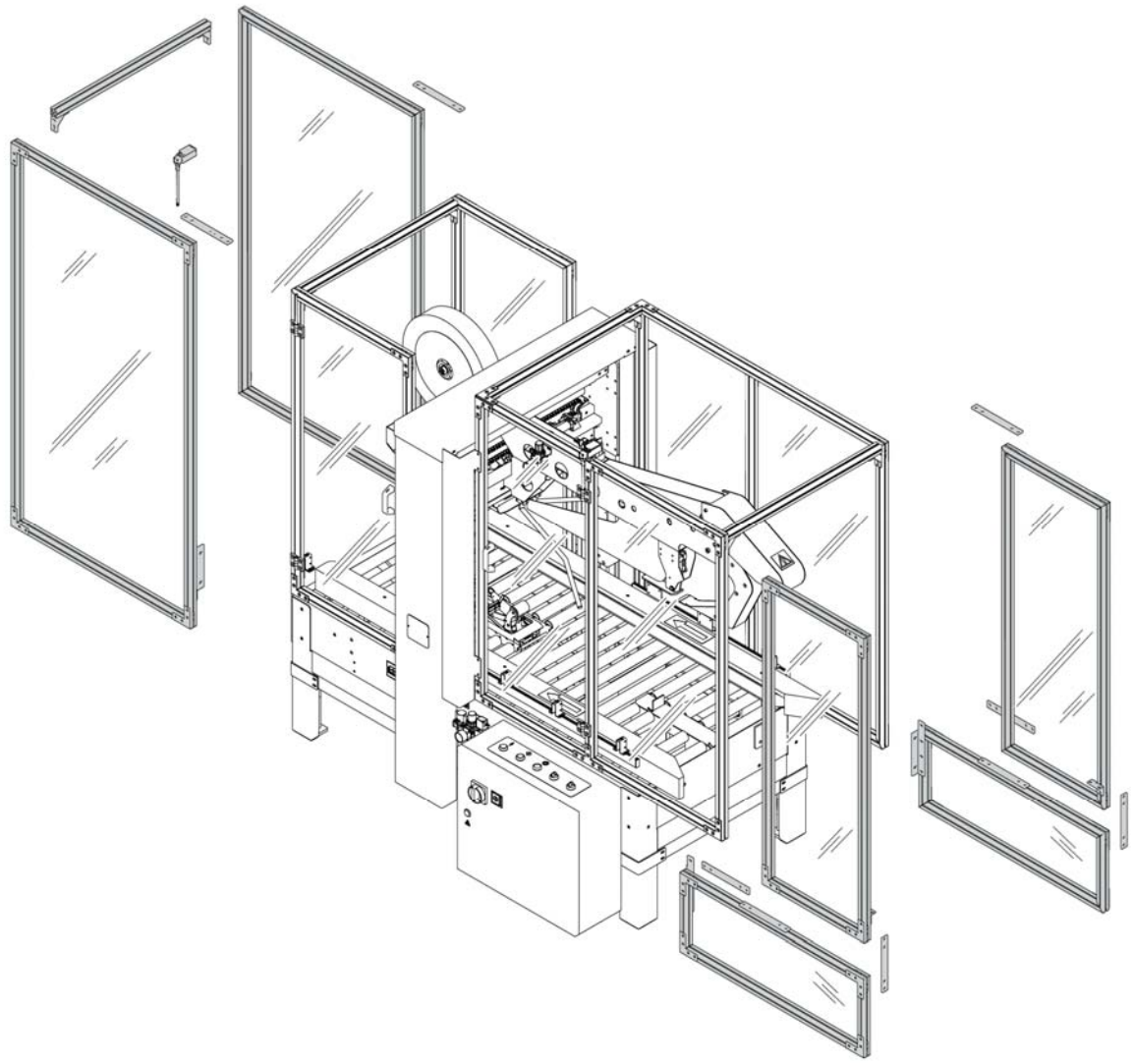




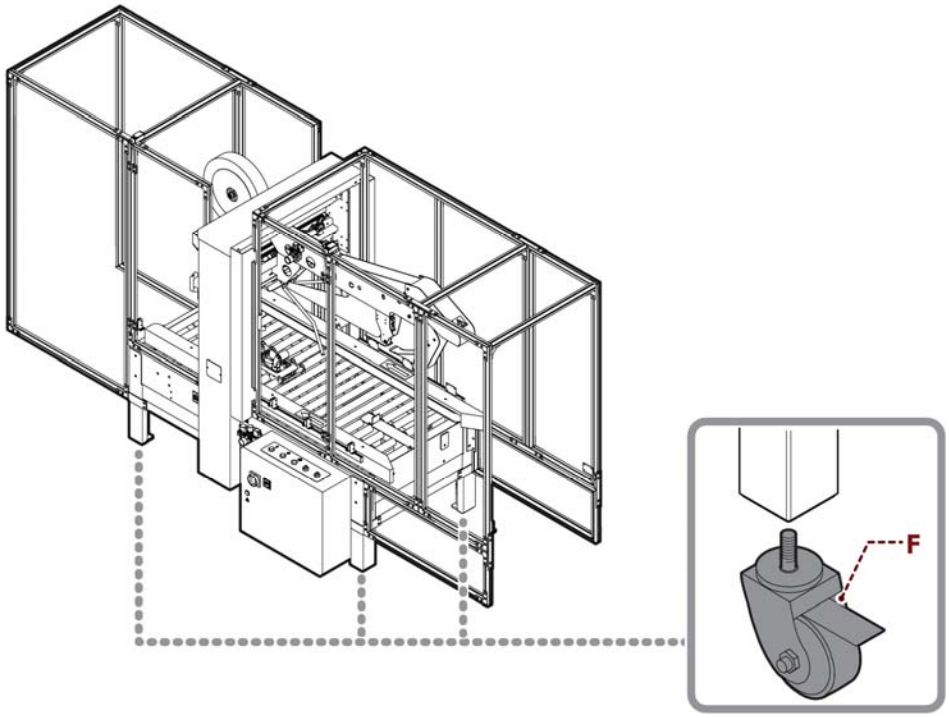
4.4. MACHINE INSTALLATION

Following are the steps to be taken to install dismantled parts.
Proceed as indicated.

1. Lift the machine (See “transport and handling”).
2. If necessary, identify the exact position and trace the co-ordinates to correctly place the machine.
3. Install the movable and fixed guards.



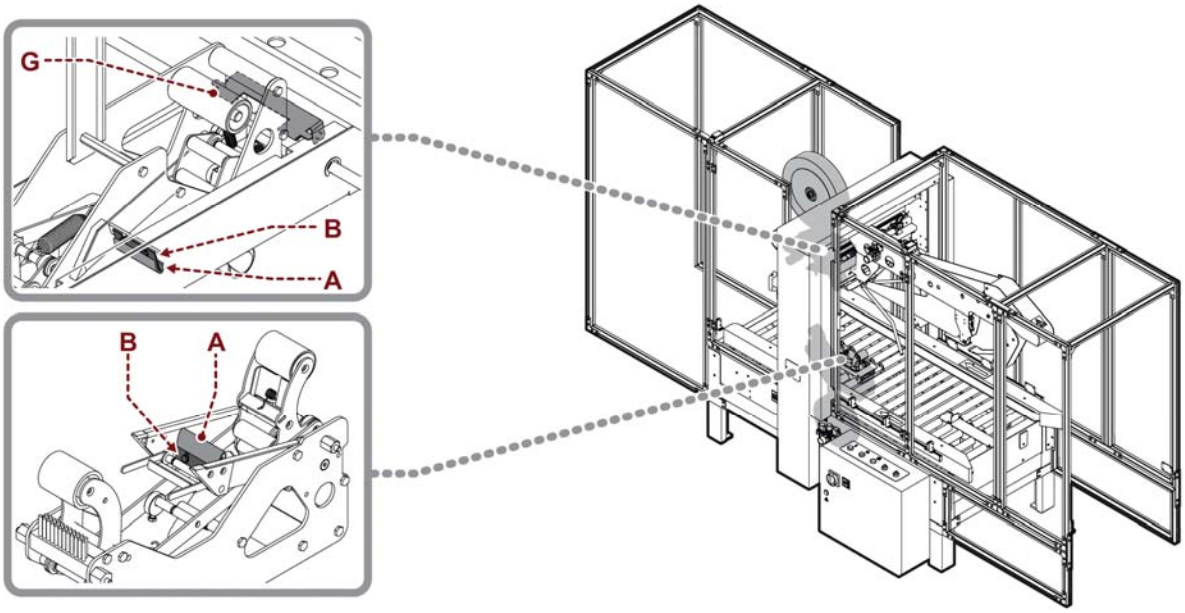
4. If the machine is equipped with swivel wheels **(F)**, screw them onto the feet.



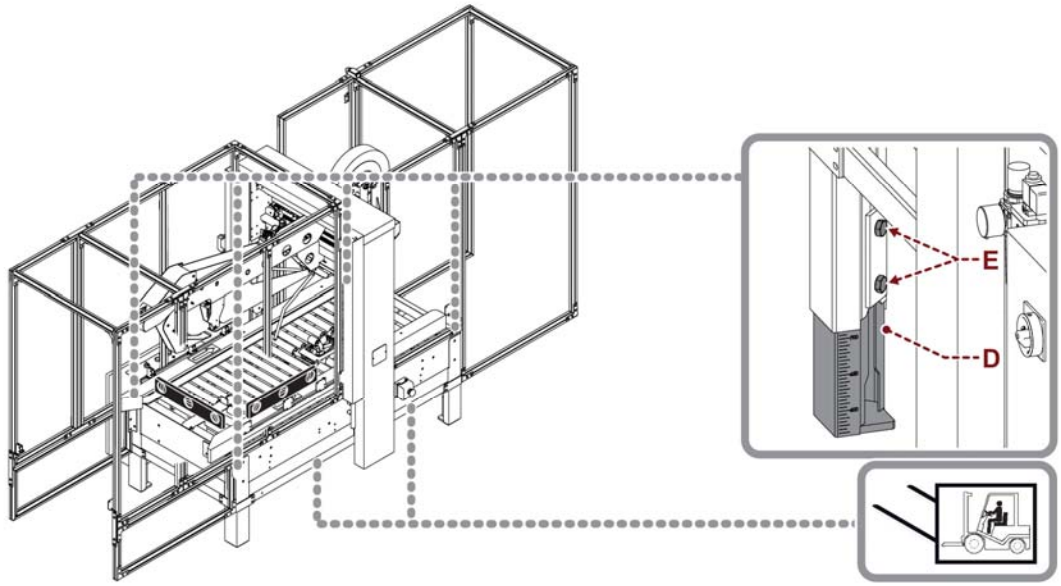
5. Install the two taping units, if necessary.
Block the top taping unit by lowering the stopper **(G)**.
Remove the protection caps **(A)** on blades **(B)**.

Danger - Warning

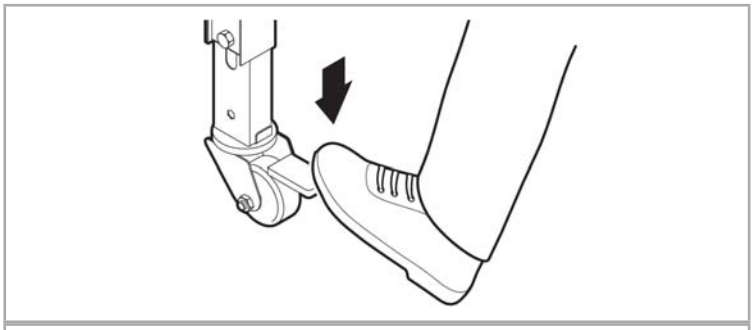
The blade is very sharp.



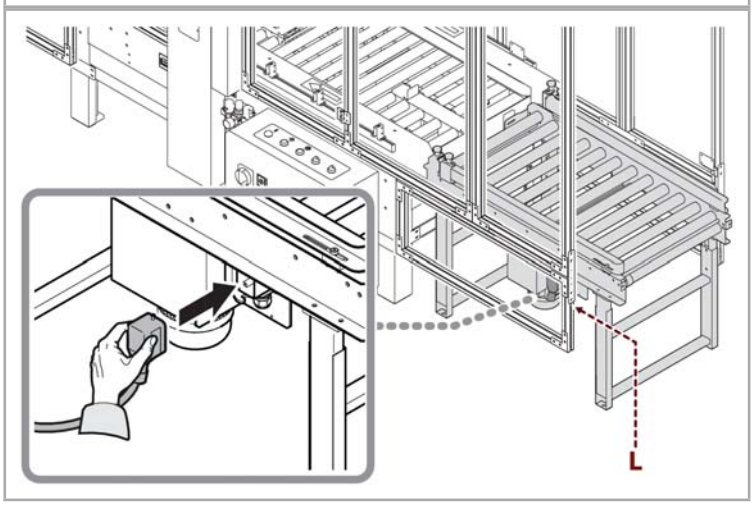
6. Operate screws **(E)** to move feet **(D)** and level the machine (see “setting the workbench height”).



7. If machine is supplied with casters, block them.



8. Connect the product entrance carrier to the machine via the **(L)** socket.



4.5. CARRIERS INSTALLATION (OPTIONAL)

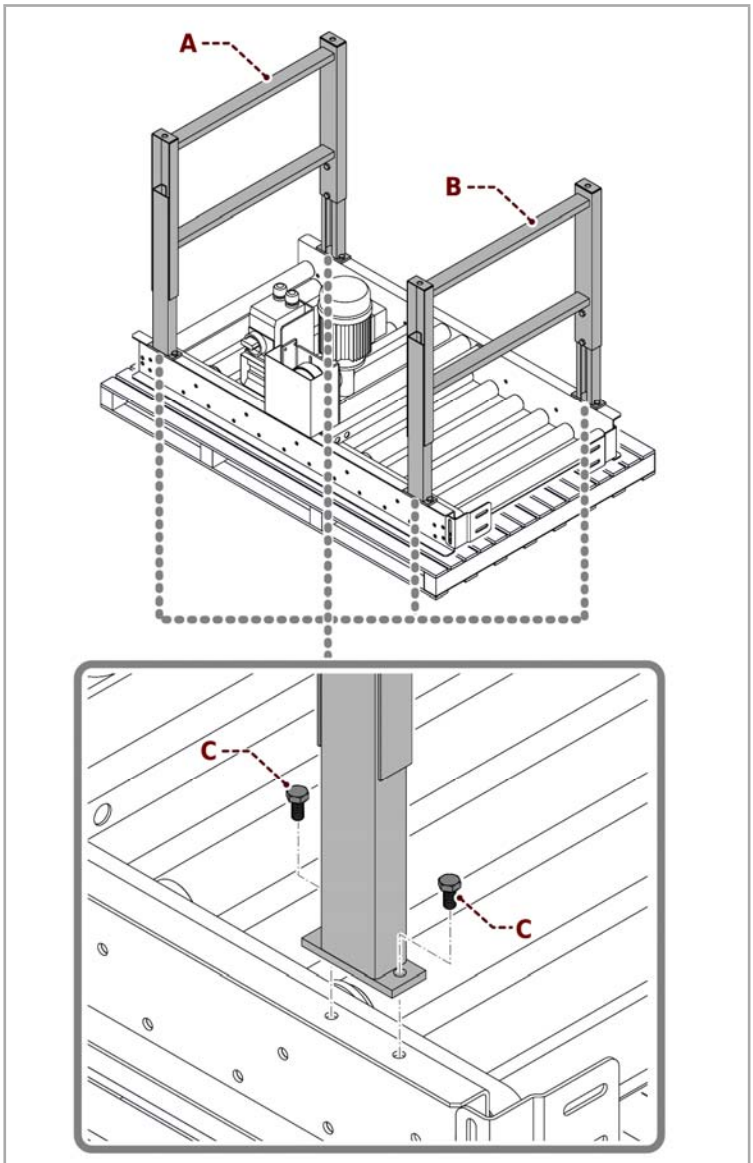
Following are the steps to be taken to install dismantled parts.
Proceed as indicated.

1. Install the supports **(A - B)** using the screws **(C)**.

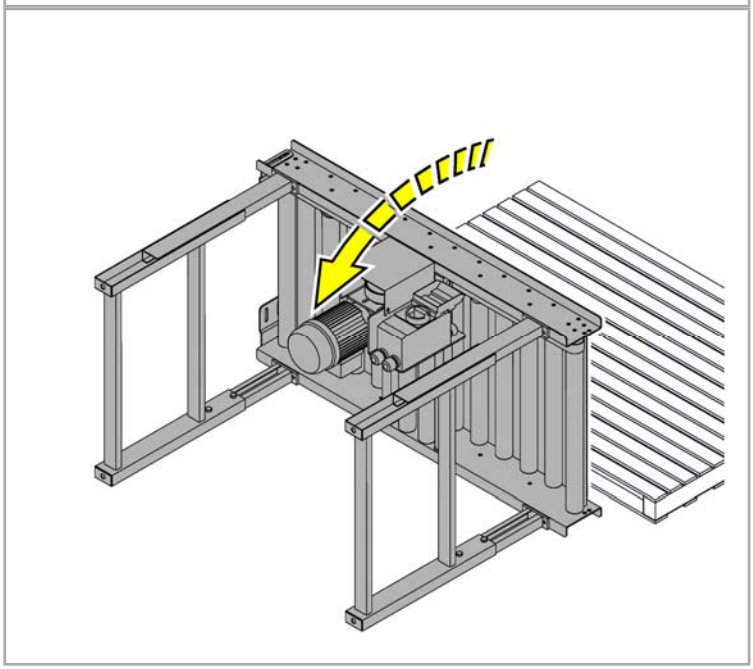


Caution

Two operators are needed to perform the following operations.

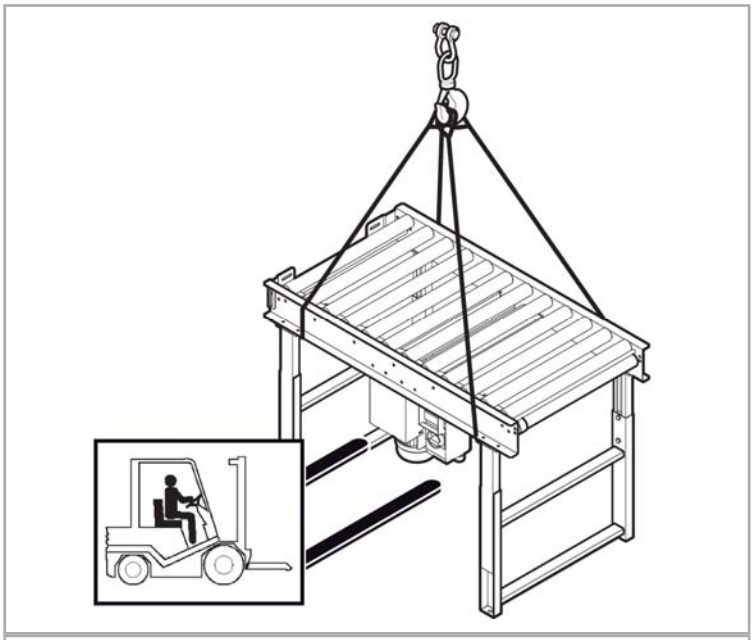


2. Remove the blocks used for transportation and stand the carrier up.

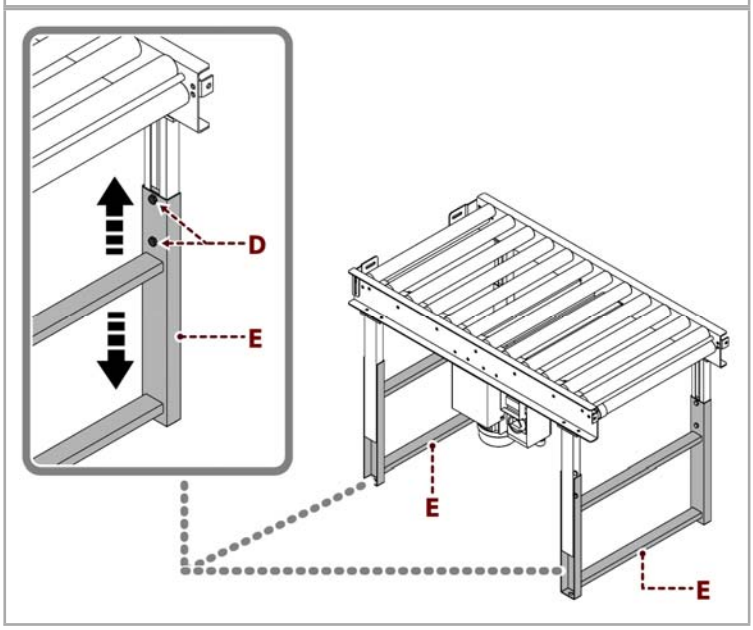


3. If necessary, identify the exact position and trace the co-ordinates to correctly place the machine.

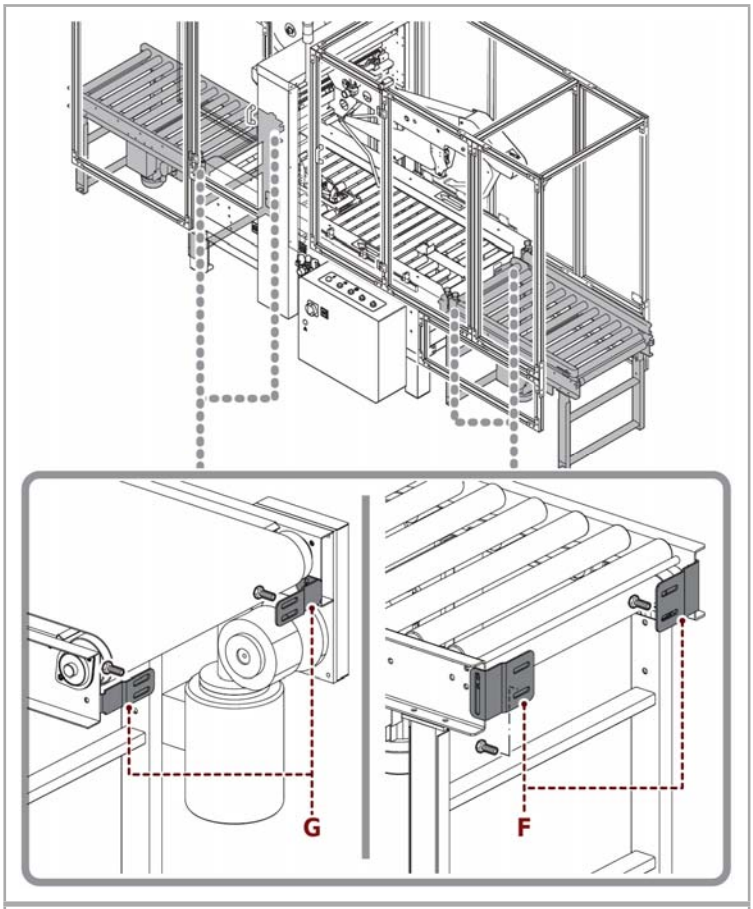
4. Lift the machine as shown and position it.



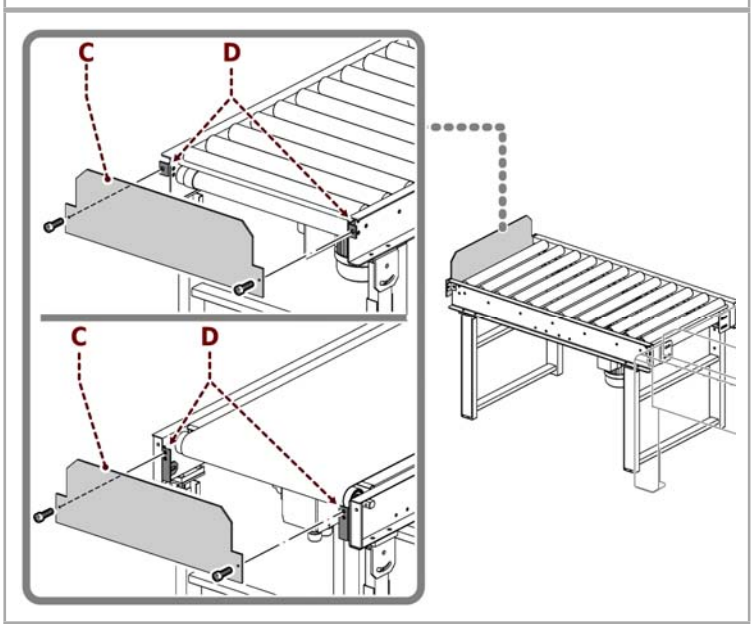
5. Operate screws **(D)** to move feet **(E)** and level the machine (see “setting the workbench height”).



6. Secure the carriers to the machine using the **(F - G)** brackets and the screws provided.



7. If included, install the output carton stop plate **(C)** using the brackets **(D)** and screws supplied.



4.6. RECOMMENDATIONS FOR CONNECTIONS

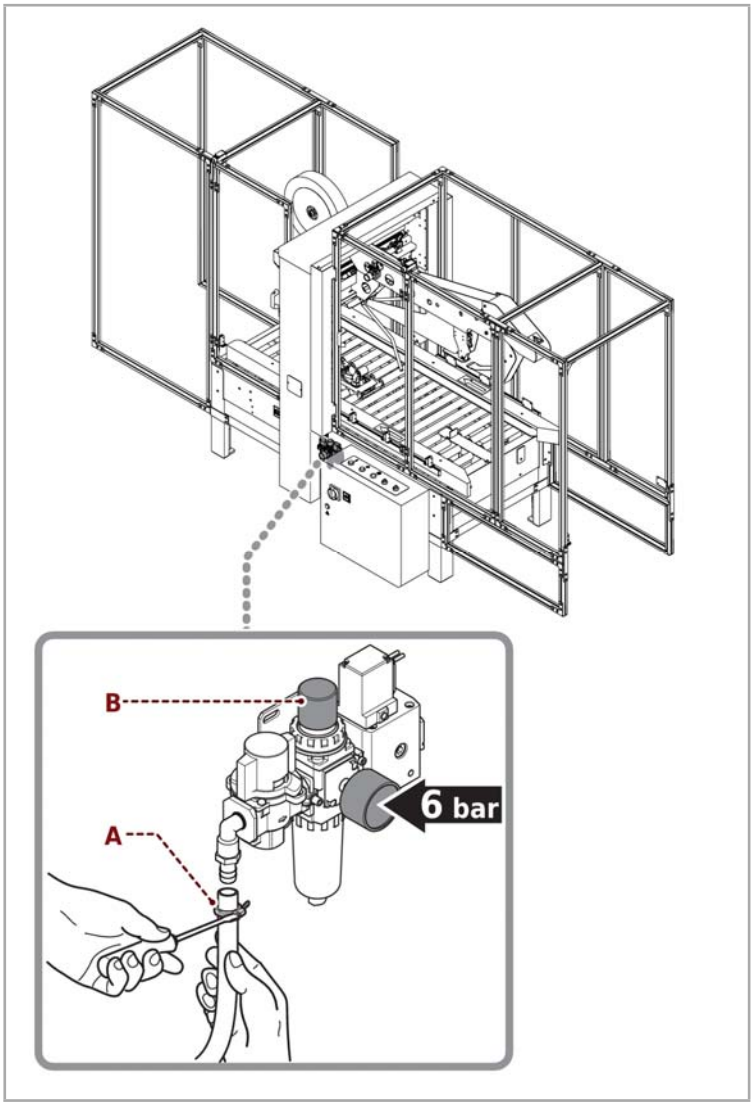
Important

The connections must be made in accordance with the specifications supplied by the manufacturer in the enclosed diagrams.
The person authorized to carry out said operation must posses the skills and experience acquired and acknowledged in the specific sector, must perform the connection workmanlike and keep into account all the statutory and legislation requirements.
Once the connection has been completed, before commissioning the machinery, it is necessary to perform an overall control to verify if said requirements have been complied with.

4.7. PNEUMATIC CONNECTIONS

Proceed as indicated.

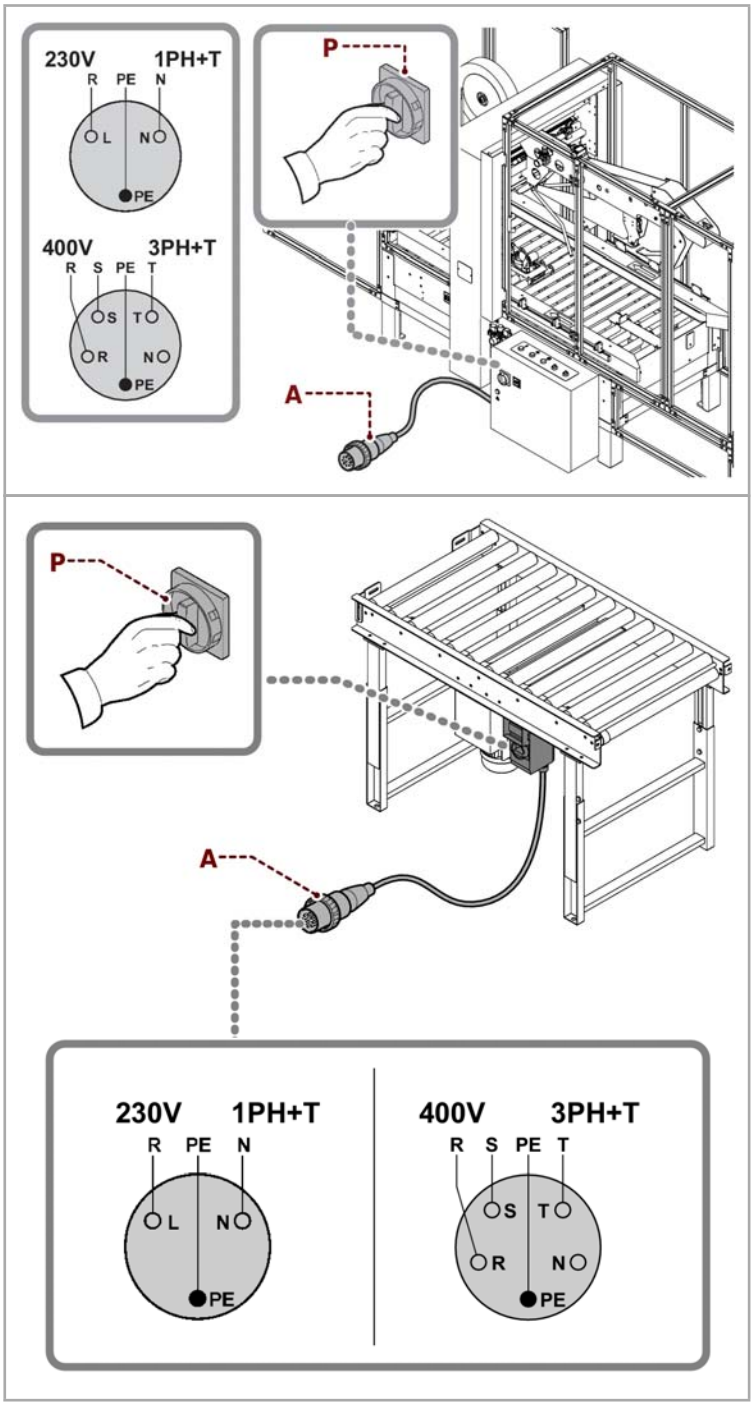
1. Insert a flexible tube on the end of the rubber fitting and fasten it with a metallic screw clamp **(A)**.
2. Turn on the power supply line.
3. Check that the pressure gauge indicates at least **6 bar** and use the knob **(B)** to compensate any pressure differences. Repeat this operation when the machine is running.



4.8. ELECTRICAL CONNECTION

Proceed as follows for electrical connections.

1. Check that the mains voltage **(V)** and frequency **(hz)** correspond to those of the machine (see identification plate and wiring diagram).
2. Turn main switch **(P)** to pos. **O**.
3. Connect the power cord to the outlet **(A)**, as illustrated, according to the network mains.
4. The earth wire (yellow and green) must be connected to its earth terminal **PE**.
5. Turn main switch **(P)** to pos. **1**.
6. Start the electric motor and check that rotation direction is that indicated on the plate.



Important

If the direction is wrong, deactivate the main electrical knife and invert the phase cables.

5. INFORMATION ON ADJUSTMENTS

5.1. RECOMMENDATIONS FOR ADJUSTMENTS

– Before performing any operation, the authorised operator must make sure that he/she understood the "Instructions for use".
– Pay attention to the SAFETY WARNINGS, do not use the machine for UNSPECIFIED PURPOSES and assess the possible RESIDUAL RISKS.

Important

Before carrying out any adjustment operations, activate all the safety devices provided for, and evaluate if it is necessary to adequately inform the operating personnel or the personnel nearby.
In particular, confine the neighbouring areas to impede access to the devices that could, if activated, produce unexpected danger conditions provoking hazards to personal safety and health.

5.2. CONVEYOR BELT ADJUSTMENT

Proceed as indicated.

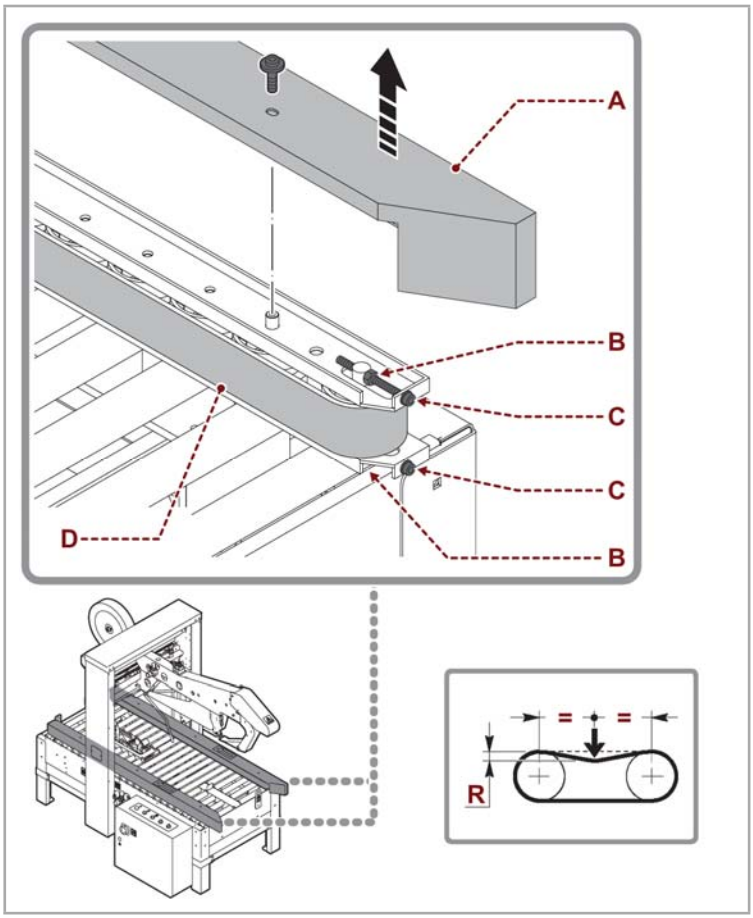
1. Deactivate the main electric switch to put the machine in safety conditions.
2. Remove transmission cover **(A)**.
3. Loosen the nuts **(C)**.
4. Operate nuts **(B)** to set the tension of the tape **(D)**.
Tighten or loosen screws **(B)** by the same degree to keep the alignment.

Important

To check tension, attain to what indicated in the figure.

The resulting shifting **R** should be of **30÷40 mm**.

5. Repeat the operations described to adjust the other belt.
6. Tighten the nuts **(C)**.
7. Re-assemble the casing **(A)** at the end of the operation.



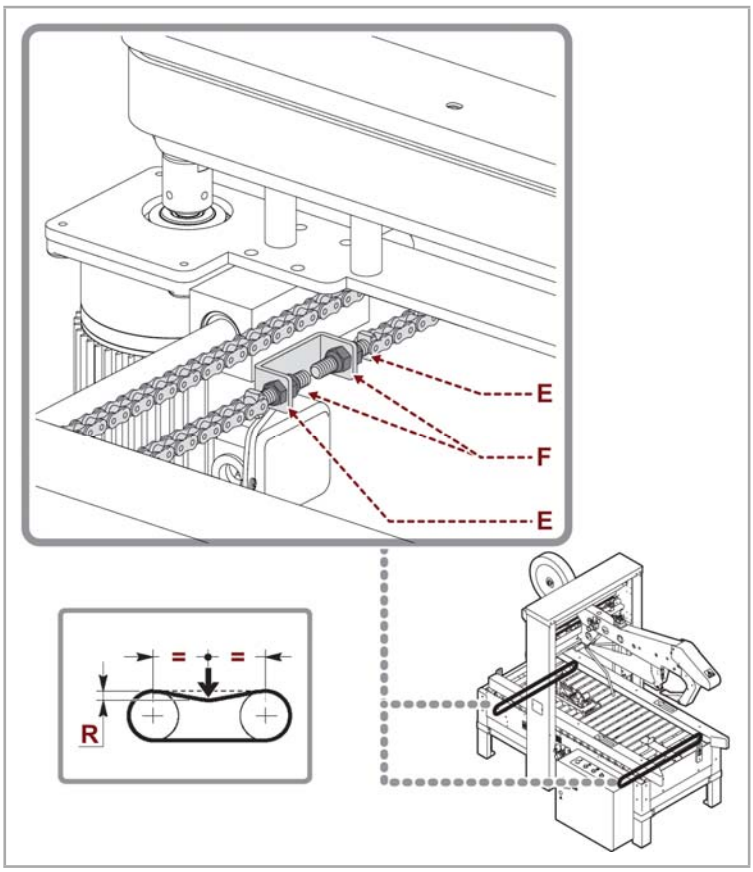
Caution - Warning

Before re-starting the machine, check that no tools or other equipment has been left near the moving parts.

5.3. ADJUST THE TRANSPORT UNIT DRIVING CHAIN

Proceed as indicated.

1. Deactivate the main electric switch to put the machine in safety conditions.
2. Loosen the screw **(E)**.
3. Operate the chain tensioner roller **(F)** to set the tension of the chain.
4. tighten screw **(E)**.



Important

To check chain tension, use the method indicated in the illustration. The resulting shift **(R)** should be **5÷10 mm**.

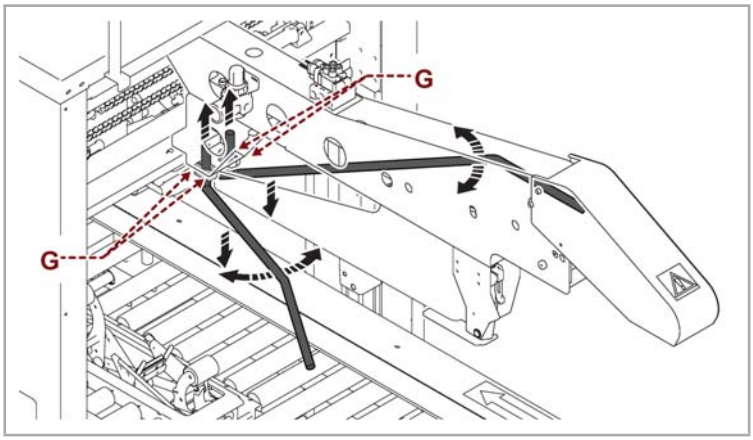
Caution - Warning

Before re-starting the machine, check that no tools or other equipment has been left near the moving parts.

5.4. ADJUSTMENT FLAP CLOSER DEVICE

Proceed as indicated.

1. Deactivate the main electric switch to put the machine in safety conditions.
2. Loosen the screws **(G)**.
3. Adjust the height and the width of the "flap closing" device and tighten the screws **(G)**.



Caution - Warning

Before re-starting the machine, check that no tools or other equipment has been left near the moving parts.

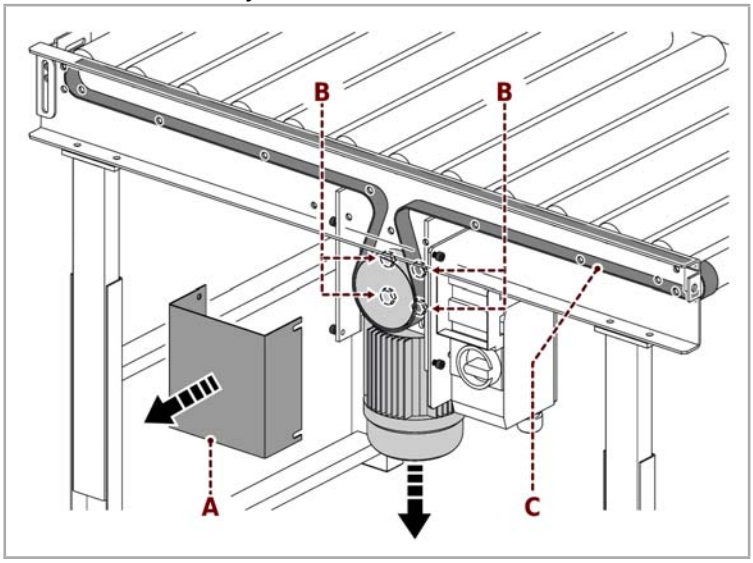
Important

This device is adjusted by the manufacturer and does not need adjustment except in particular cases.

5.5. ADJUSTMENT OF TRANSPORT ROLLER MOVEMENT BELT

Proceed as indicated.

1. Deactivate the main electric switch to put the machine in safety conditions.
2. Remove transmission cover **(A)**.
3. Loosen the nuts **(B)**.
4. Move the motor unit to adjust the roller chain tension **(C)**.
5. Tighten the nuts **(B)**.

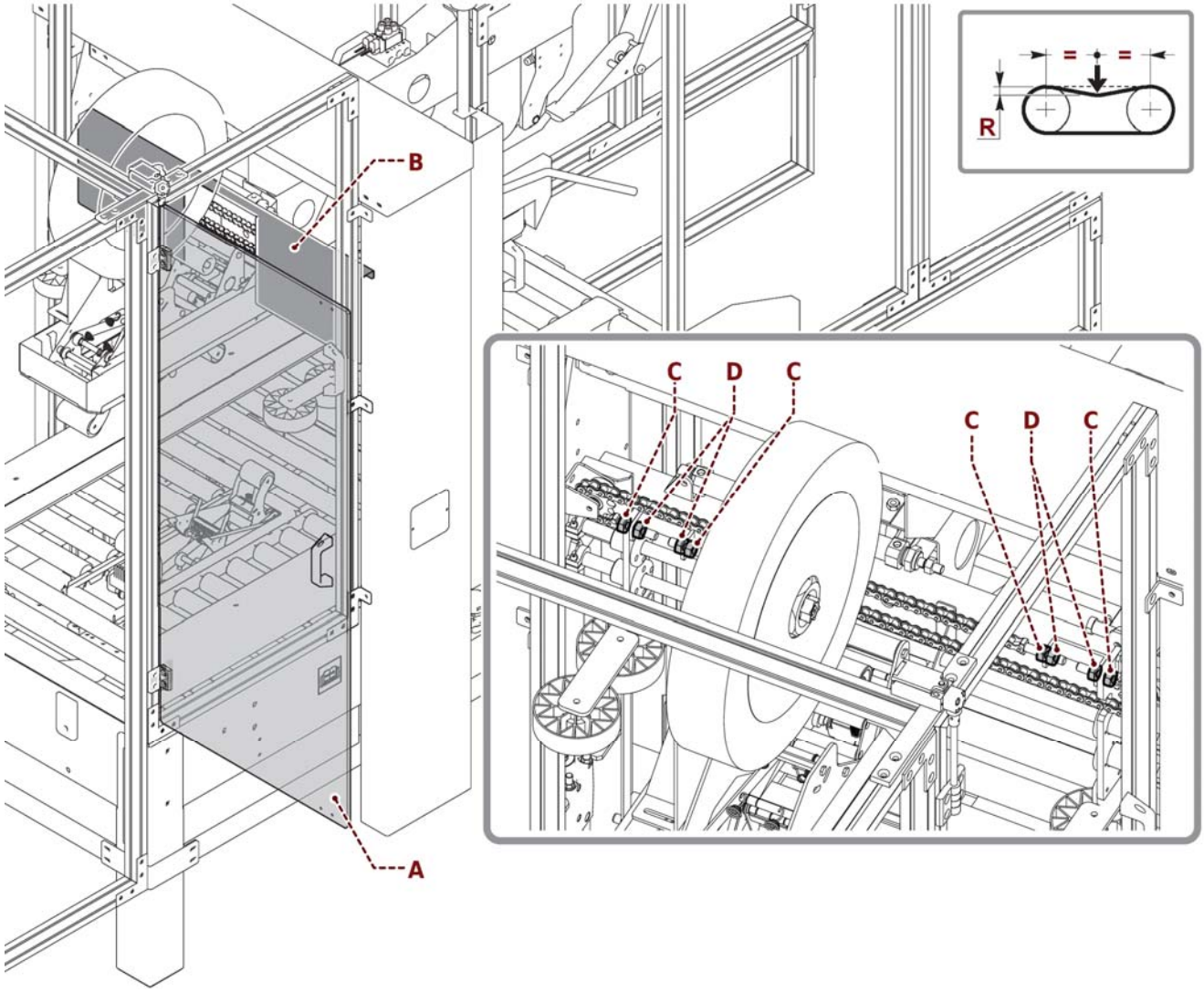


Caution - Warning

Before re-starting the machine, check that no tools or other equipment has been left near the moving parts.

5.6. SIDE PRESSER MOVEMENT CHAIN ADJUSTER

Proceed as indicated.



1. Deactivate the main electric switch to put the machine in safety conditions.
2. Open hatch **(A)**.
3. Remove transmission cover **(B)**.
4. Loosen the nuts **(C)**.
5. Operate nuts **(D)** to adjust chain tension.
6. Tighten the nuts **(C)**.
7. Reassemble the **(B)** cover and close door **(A)**.

Important

To check chain tension, use the method indicated in the illustration. The resulting shift **± 5 mm** should be **(R)**.

Caution - Warning

Before re-starting the machine, check that no tools or other equipment has been left near the moving parts.

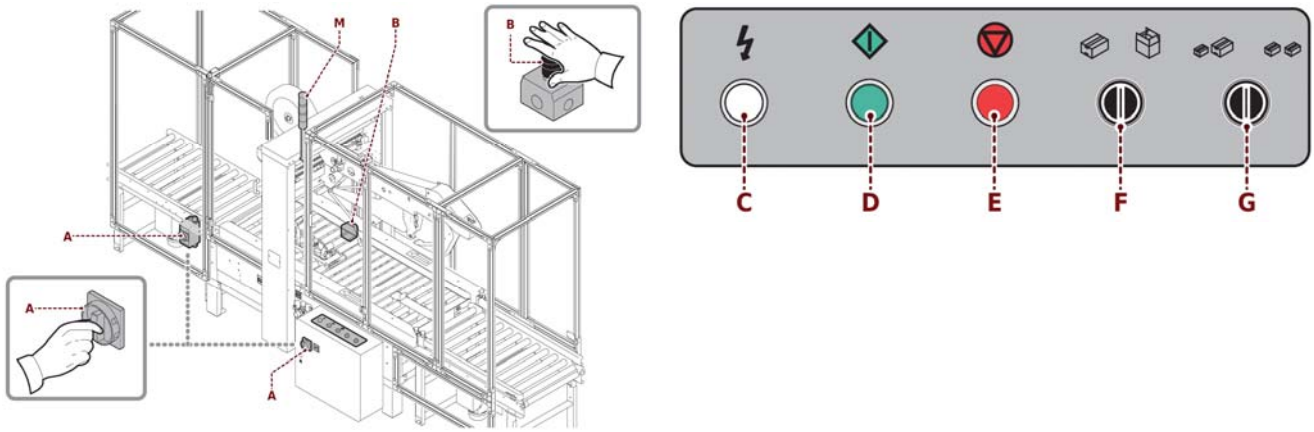
6. ABOUT THE USE

6.1. RECOMMENDATIONS FOR OPERATION AND USE

- Before performing any operation, the operator must make sure that he/she understood the "Instructions for use".
- When using the machine for the first time, the operator must read the manual and identify the controls and simulate some operations, especially the start-up and shutdown.
- Check that all safety devices are installed correctly and in good working order.
- Only implement the uses intended by the manufacturer and do not tamper with any device to obtain performances different from the intended ones.

6.2. CONTROL DESCRIPTION

The illustration shows the main controls of the machine and the list shows their description and function.



A) **IG** Main switch: switches the power source tension on and off.
Position **"0"** (OFF) indicates that the machine is not powered.
Position I (ON) indicates that the machine is on.

B) Emergency stop push-button: it is used to stop with a voluntary action, in case of imminent risk, the organs of the machine that may pose a rick.
For further details consult the paragraph "Description of safety devices".

C) White pilot light: when on indicates that the machine is electrically powered.

D) Green “Start” button: used to activate the machine’s work cycle.

E) Red “Stop” button: used to stop the machine’s work cycle.

F) “Cycle By Pass” selector: used to select the By Pass operating mode.
Selector in central position (stable position **"0"**):
- The taping cycle is enabled.

Right selector (stable position **"I"**):
- The "By Pass" cycle without taping is enabled.

Important

With regard to the “By Pass” cycle: the lower and upper taping heads must also be removed.

G) “Fixed format cycle” selector: used to select the operating mode on fixed format boxes.
Selector in central position (stable position **"0"**):
- The variable format cycle is enabled.

Right selector (stable position **"I"**):
- The fixed format cycle is enabled.

H) "Lack of/End of upper tape" selector: used to enable the Lack of/End of upper tape alarm on the upper taping unit.
The selector is inside the **(SA1)** electric panel.

I) "Lack of/End of lower tape" selector: used to enable the Lack of/End of lower tape alarm on the lower taping unit.
The selector is inside the **(SA2)** electric panel.

M) Luminous column
Red light:
Constantly lit or flashing: indicates an emergency or alarm condition.
Off: no alarm or emergency in progress.
Yellow light:
Lit continuously (with green light off): indicates that the machine has stopped.
Lit continuously (with continuous green light): indicates that the machine is still waiting for the outgoing boxes to be removed (“too full when exiting”).
Lit flashing: indicates the tape is almost finished.
Green light:
On steady: it means that the machine is running in active automatic cycle.
Off: indicates that the machine is NOT in active automatic cycle.

6.3. SWITCHING THE MACHINE ON AND OFF

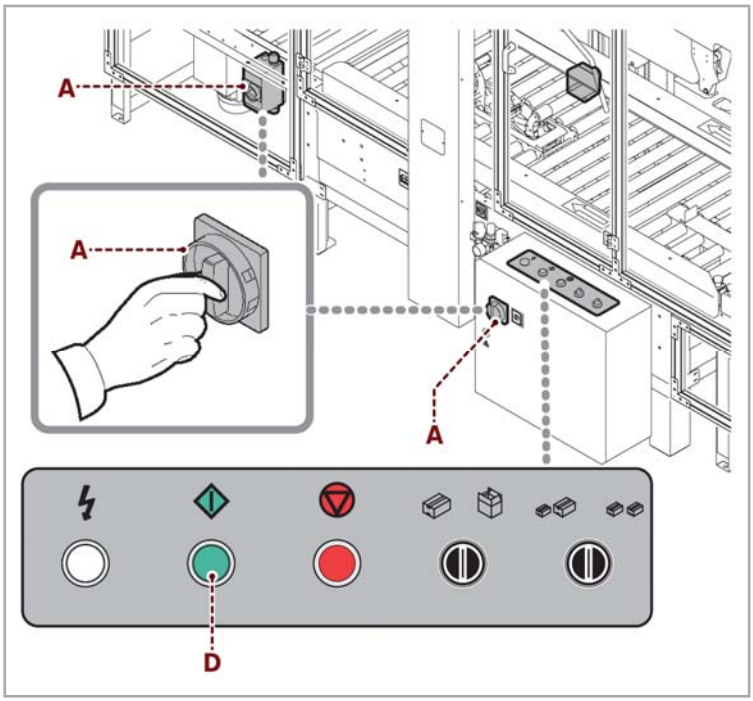
Proceed as indicated.

Switching on

1. Turn the master switch **(A)** to **"I" (ON)** to activate the power supply.
2. Press the "start" button **(D)** to start the machine.

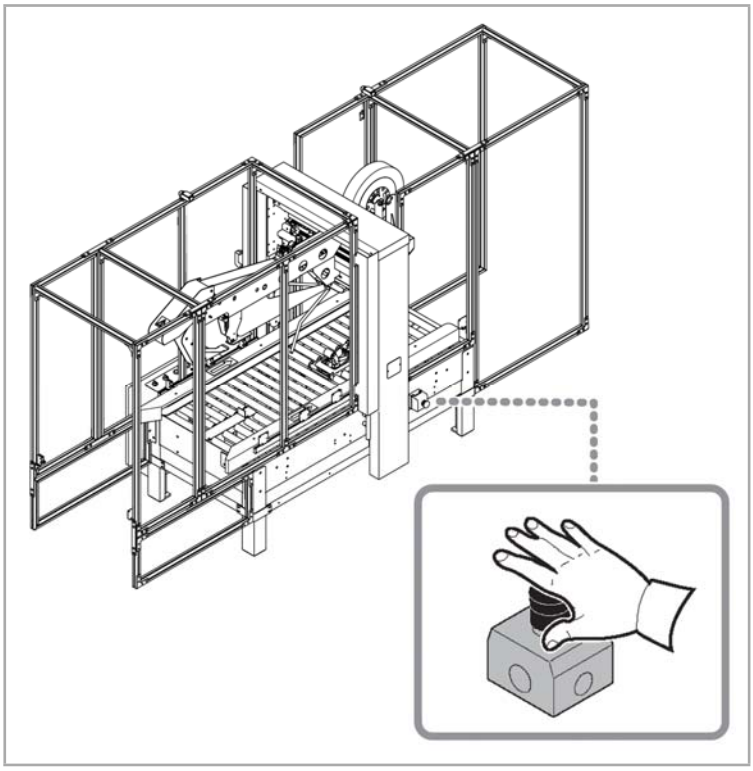
Switching off

3. Press the **(E)** “Stop” switch to turn off the machine.
4. Turn the master switch **(A)** in position **"0"** (off) to disable the power supply.



6.4. EMERGENCY STOP AND RESTART

1. Press the machine emergency stop button when there is imminent danger. Machine operation stops immediately.
2. After having re-established the normal operating conditions, the pushbutton must be released to authorize the machinery to restart.
3. Restart the machine and check that it functions correctly (see “Switching the machine on and off”).



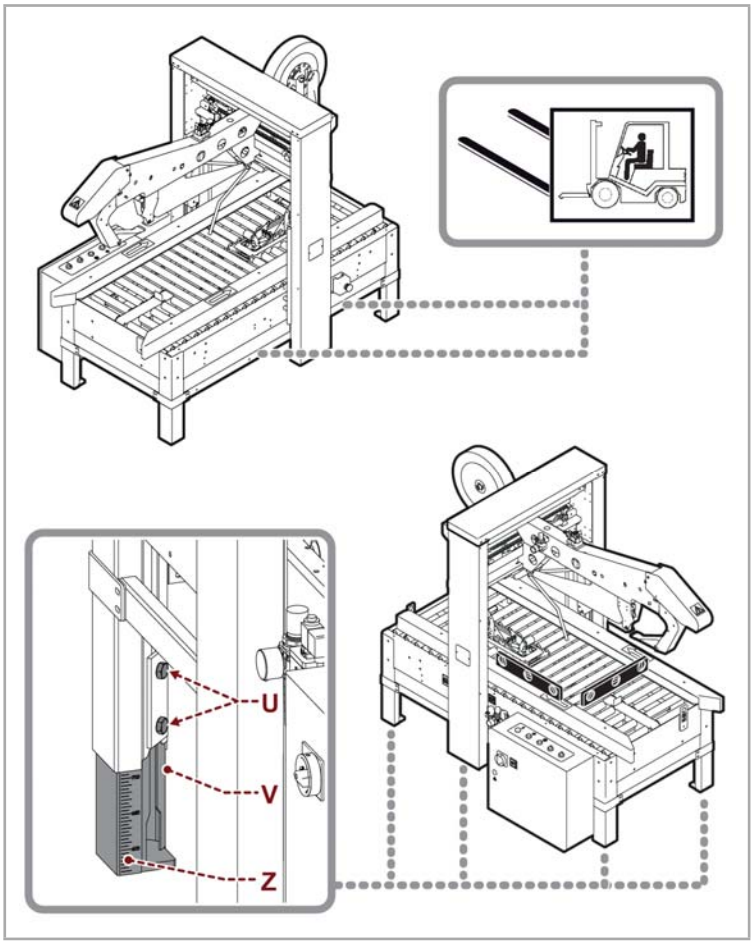
6.5. FORMAT CHANGE

Before starting to operate with different features with respect to previous ones, you must perform some adjustments on the machine.
The interventions which may be performed are indicated as follows.
– Height setting of work table.
– Carrier guide exclusion in entrance.

6.6. WORKBENCH HEIGHT SETTING OF THE MACHINE

Proceed as indicated.

1. Lift the machine as indicated in the figure (See “transport and handling”).
2. Loosen screws **(U),** adjust supporting leg **(V)** to the desired height and then tighten screws.
3. Read the value indicated on gradutaed scale **(Z)**.
4. Repeat the same operations on the other supporting legs and check that the value indicated on the gradutaed scale is the same for all.
5. Make sure the machine is levelled.

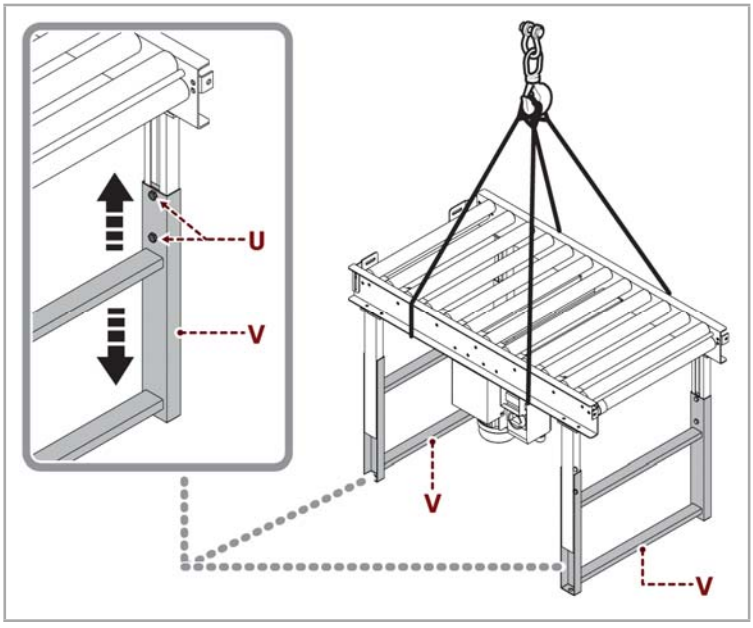


6.7. WORKBENCH HEIGHT SETTING OF CARRIERS (OPTIONAL)

Before starting to work with characteristics different to the previous ones, the height of the work surface must be set.

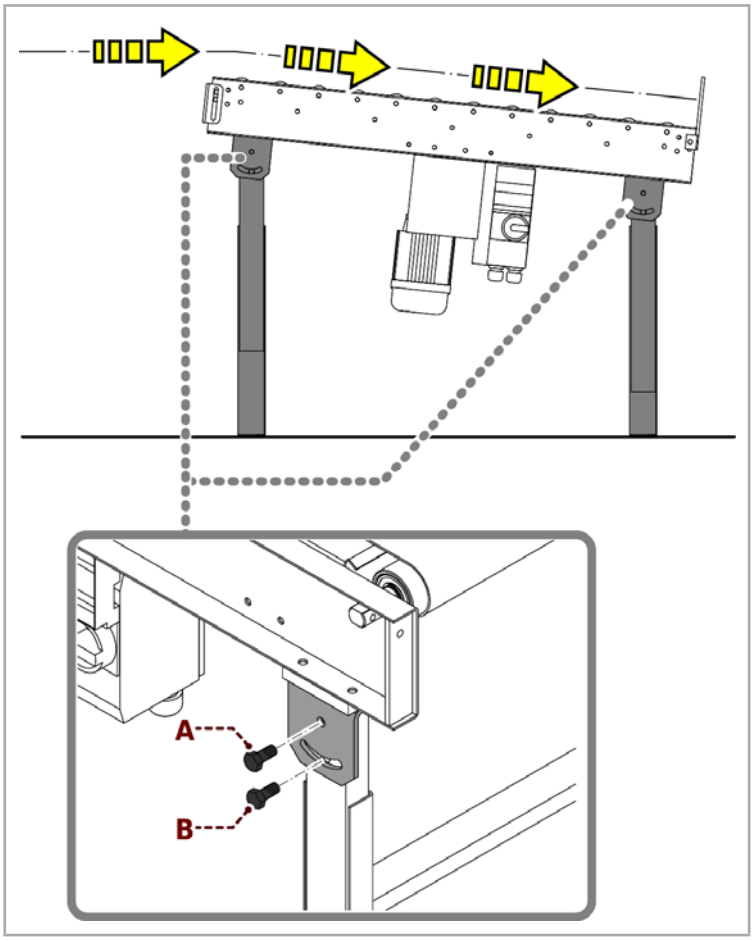
Proceed as indicated.

1. Lift the machine as indicated in the figure.
2. Loosen screws **(U),** adjust supporting leg **(V)** to the desired height and then tighten screws.
3. Repeat the same operations on the other feet.
4. Make sure the machine is levelled.



In a machine fitted with adjustable inclination supports, the product input side can be set at a height different to the product output side.

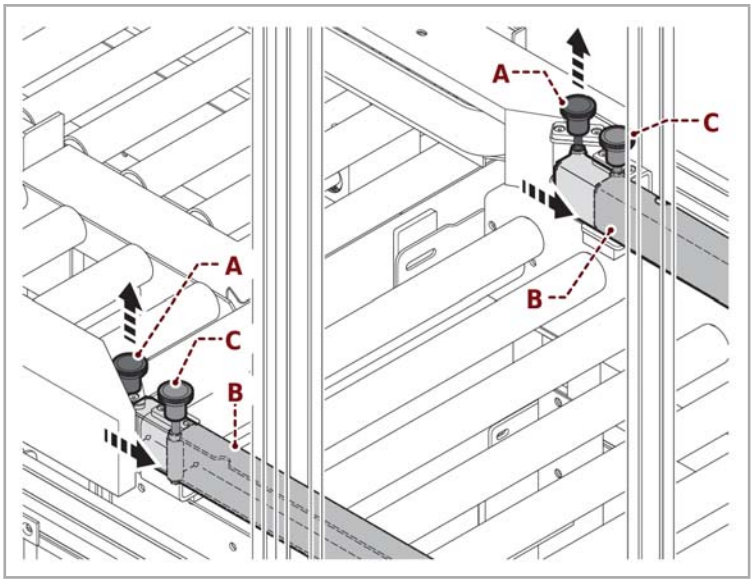
- Loosen the screw **(A)**.
- Loosen the screw **(B)**.
- Adjust the tilt and tighten the screws **(A - B)**.



6.8. CARRIER GUIDE EXCLUSION IN ENTRANCE

If you need to process various sized boxes you may need to exclude the carrier guides.
Proceed as indicated.

1. Lift the **(A)** knob to disconnect the guide from the machine's conveyor belt.
2. Move the **(B)** guide and lock it to the roller conveyor by turning the **(C)** knob.
3. Repeat the process for the other guide as well.



7. MAINTENANCE INFORMATION

7.1. MAINTENANCE INSTRUCTIONS

- A good maintenance will allow for a longer working life and constant compliance with the safety requirements.
- Before performing any operation, the authorised operator must make sure that he/she understood the "Instructions for use".
- Pay attention to the SAFETY WARNINGS, do not use the machine for UNSPECIFIED PURPOSES and assess the possible RESIDUAL RISKS.
- Carry out the interventions with all the safety devices enabled and wear the DPI provided.
- Mark the intervention area and prevent access to the devices that, if activated, may cause unexpected hazards and jeopardize the safety level.
- DO NOT carry out any intervention that is not described in the manual but contact an Assistance Service authorised by the manufacturer.
- DO NOT damp in the environment materials, pollutant liquids and the residues created during the interventions but dispose them according to the standards in force.
- Before performing any maintenance operation, disconnect the power supply.

7.2. MAINTENANCE PERIOD TABLE

Important

Keep the machinery in maximum efficiency condition and perform all the scheduled maintenance operations provided for by the manufacturer.
Proper maintenance will provide the best performance, a longer life span and constant compliance with safety requirements.

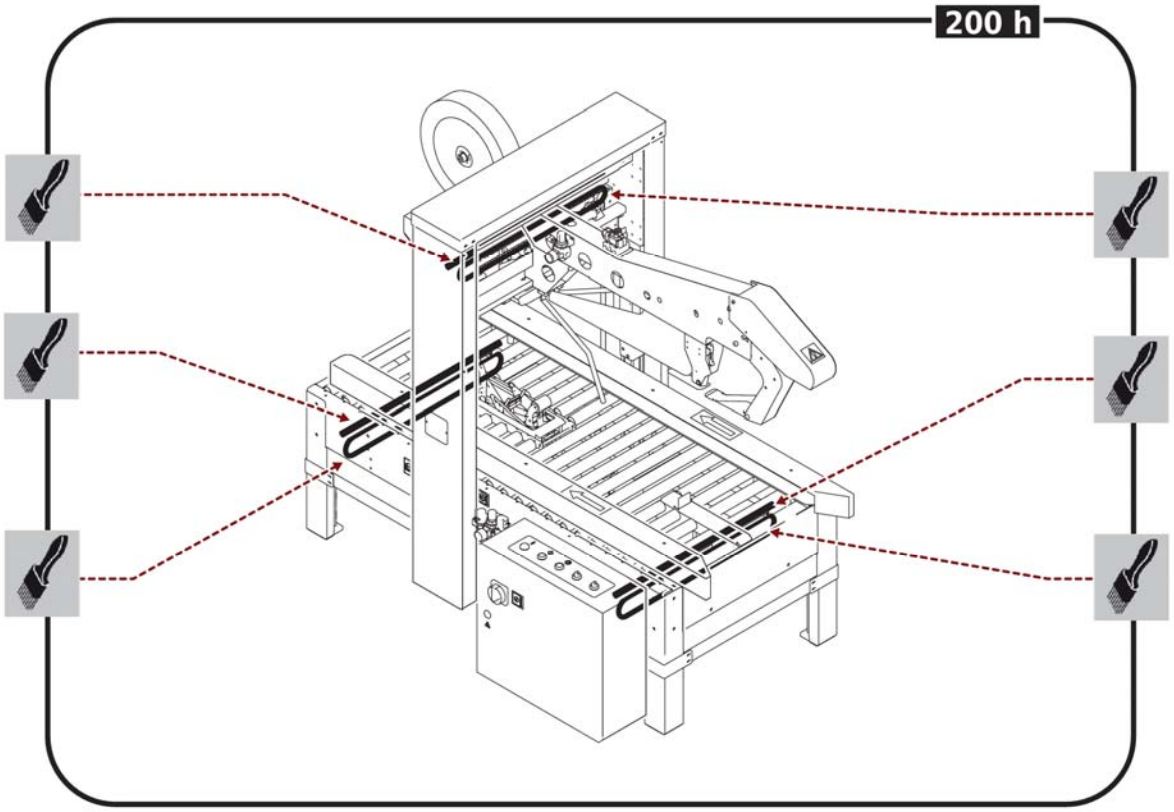
Routine maintenance operation table

Frequency	*Component*	*Type of intervention*	*Procedure*	*Reference*
Every 40 hours	Machine.	Cleaning.	Clean with a cloth of air jet.	-
Every 200 hours	Conveyor belts.	General inspection.	Check tension and adjust, if necessary, adjust.	See “conveyor belt adjustment”.
Every 200 hours	Cutting blade.	General inspection.	Clean with solvent and a jet of air.	**Danger - Warning** The blade is very sharp.
Every 200 hours	Transport unit driving chain.	General inspection.	- Wash with solvent, let it dry and lubricate. - Check tension and adjust, if necessary, adjust.	- See “Lubrication point diagram”. - See “how the adjust the driving chain of the transport unit”.

Every 200 hours	Transport unit guides.	General inspection.	Wash with solvent, let it dry and lubricate.	See “Lubrication point diagram”.
Every 200 hours	Conveyor belts.	General inspection.	Check for wear and, if necessary, replace.	See “conveyor belt replacement”.
Every 1000 hours	Cutting blade.	General inspection.	Check efficiency and, if necessary, replace.	See “blade replacement”. **Danger - Warning** The blade is very sharp.
Every 2000 hours	Transport unit driving chain.	General inspection.	Check for wear and, if necessary, replace.	See “how the replace the driving chain of the transport unit”.
Every 2000 hours	Safety devices.	Efficiency control.	Replace the damaged components.	-

7.3. LUBRICATION POINT DIAGRAM

The following diagram shows the main components and the frequency of the lubrication interventions.



Symbol and Description



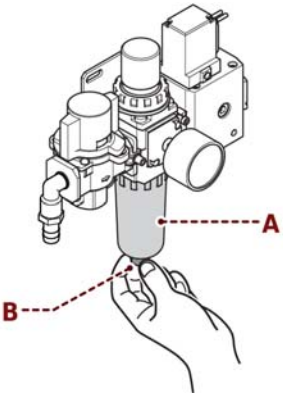
Smear with grease

Keep to the recommended lubrication frequency to get top machine performances and a longer operating life.
Use lubricants (oils or grease) recommended by the manufacturer or with similar chemical-physical features.

7.4. CONDENSATE DISCHARGE

Proceed as indicated.

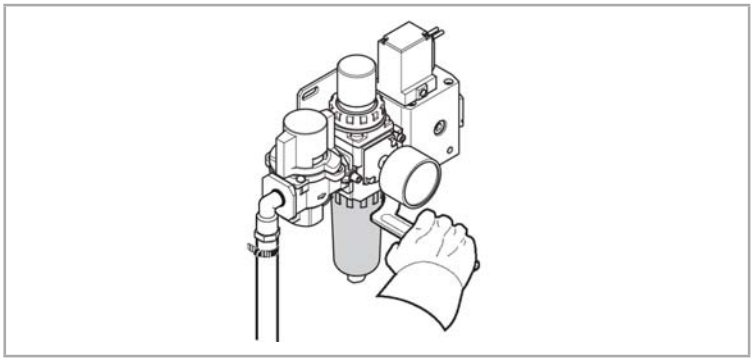
1. Close the pneumatic supply and check the formation of condensation in the cup **(A)**.
2. Push the valve **(B)** up until all condensation is removed.
3. Reactivate the pneumatic supply.



7.5. CLEANING THE AIR FILTER

Proceed as indicated.

1. Close the pneumatic supply.
2. Loosen the cup **(A)** with the specific key.
3. Detach the filter and clean with compressed air and wash, if necessary with petrol or trichloroethylene.
4. Reassemble the filter and tighten the container **(A)**.
5. Reactivate the pneumatic supply.



7.6. LUBRICANTS TABLE

Oil and grease table

TYPE OF LUBRICANT	NAME	PARTS TO BE LUBRICATED
Mineral oil	+23°C/+50°C -320 CST/40°C MELLANA OIL 320 IP SPARTAN EP 320 ESSO TOTALCARTER SYOO TOTAL MOBILGEAR 632 MOBIL OMALA EP 320 SHELL ENERGOL GR-XP 320 BP	Gear motor
Mineral oil	+32°C/+50°C -460 CST/40°C MELLANA OIL 460 IP SPARTAN EP 460 ESSO BLASIA 460 AGIP MOBILGEAR 634 MOBIL OMALA EP 460 SHELL ENERGOL GR-XP 460 BP	Worm gear motor
Grease	TELESIA COMPOUND B IP STRUCTOVIS P LIQUID KLUBER TOTALCARTER SYOO TOTAL	Gear and worm gear motor
Synthetic oil	TELESIA OIL IP SYNTHESO D 220 EP KLUBER BLASIA S 220 AGIP	Gear and worm gear motor
Lithium grease	ALVANIA R2 SHELL HL 2 ARAL ENERGREASE LS2 BP BEACON 2 ESSO MOBILIX MOBIL	Bearings with support
Synthetic oil	-5°C / +5°C VG 68 (SAE 20) +5°C / +25°C VG 100 (SAE 30)	Reel carriage lifting chain
Synthetic oil	+25°C/+45°C VG 150 (SAE 40) +45°C/+70°C VG 220 (SAE 50)	Table rotation chain
Synthetic oil	MOBIL PYROLUBE 830	Tunnel conveyor chain

Important

Do not mix oils of different makes and specifications.

8. TROUBLESHOOTING

8.1. TROUBLES, CAUSES AND REMEDIES

The troubleshooting table lists the problems, the possible causes and solutions.

Problem	*Cause*	*Remedy*
The box blocks during the taping operation.	Conveying belts worn out.	Replace conveying belts. See “conveyor belt replacement”.
The closing tape is not centred on the box.	The transmission chain of the transport unit moves too slow.	Adjust the tension of the driving chain. See “how the adjust the driving chain of the transport unit”.

Important

For inconveniences, causes and remedies relating to the taping unit, consult the proper instructions manual **T50 - T75 - T50/30** (See "how to correct the taping defects").

8.2. ALARM MESSAGES

In case of breakdowns or malfunctioning during processing the machine stops automatically.

Important

For these operations a precise technical skill or ability is required; therefore, these operations must be exclusively performed by qualified personnel with certified experience acquired in the specific field.

Warning	*Cause*	*Signalling on column*	*Remedy*
EMERGENCY ALARM MUSHROOM BUTTON PRESSED	Emergency alarm mushroom button pressed.	Red light: constantly on.	- Reset the emergency stop button. - Press the "Start" button.
GUARD WARNING	Guards open.	Red light: constantly on.	- Close the guards. - Press the "Start" button.
THERMAL PROTECTION ALARM	Thermal or magneto - thermal relay protection.	Red light: constantly on.	- Eliminate the overload cause, reset guards with the specific reset. - Press the "Start" button.
LACK OF/END OF TAPE ALARM	The tape is either broken or finished.	Red light: continuous flashing.	- Insert the tape or replace the coil. - Press the "Start" button.

TAPE CLOSING OR DESCENDING BRIDGE PHOTOCELL ALARMS ENGAGED	The tape closure or bridge descending photocell is engaged immediately after the bridge rises up again and the belts are reopened.	Red light: 1 flash.	- Remove any products found in front of the photocells. - Press the "Start" button.
PRODUCT TRANSIT WARNING	A product is taking too long to be taped.	Red light: 2 flashes.	- Press the "STOP" button. - Remove the product. - Press the "Start" button.
BRIDGE NOT UP WARNING	The bridge can’t reach the upward position.	Red light: 3 flashes.	- Check the pressure in the pneumatic system. - Press the "Start" button.
TAPES NOT OPEN WARNING	The tapes are not opening.	Red light: 4 flashes.	- Check the pressure in the pneumatic system. - Press the "Start" button.
BRIDGE NOT DOWN WARNING	The bridge can’t reach the downward position.	Red light: 5 flashes.	- Press the "STOP" button. - Check the pressure in the pneumatic system. - Press the "Start" button.
FLAP COVER PHOTOCELL ALARM ENGAGED	The flap closure photocell doesn’t free itself during the taping of the product.	Red light: 6 flashes.	- Press the "STOP" button. - Remove the products. Press the "Start" button -.
ENTRANCE PHOTOCELL ALARM ENGAGED	The flap closure photocell or the entrance photocell are engaged for too long while waiting for products: a product may be stuck in the entrance.	Red light: 7 flashes.	- Press the "STOP" button. - Remove the products. - Press the "Start" button.

8.3. MESSAGES

Note

These messages do not stop the machine.

Message	*Cause*	*Signalling on column*	*Remedy*
TOO FULL IN OUTFEED AREA	The output photocell is not free.	Yellow light: constantly on.	- Remove the outbound products.
TAPE ALMOST FINISHED	The tape is running out.	Yellow light: continuous flashing.	- Get ready to change the tape.

9. SPARE PARTS REPLACEMENT INFORMATION

9.1. RECOMMENDATIONS FOR REPLACING PARTS

- Carry out the interventions with all the safety devices enabled and wear the DPI provided.
- DO NOT carry out any intervention that is not described in the manual but contact an Assistance Service authorised by the manufacturer.
- DO NOT damp in the environment materials, pollutant liquids and the residues created during the interventions but dispose them according to the standards in force.

Important

Before carrying out any replacement activate all safety devices provided for, and assess if it is necessary to inform operating personnel and the personnel nearby.

In particular, confine the neighbouring areas to impede access to the devices that could, if activated, produce unexpected danger conditions provoking hazards to personal safety and health.

When replacing worn parts, use only original replacement parts.

The Manufacturer is not responsible for any damage to property or injuries to people caused by the use of non-genuine spare parts or which may result from repairs not authorised by the Manufacturer.

When ordering new parts, follow the instructions given in the spares catalogue.

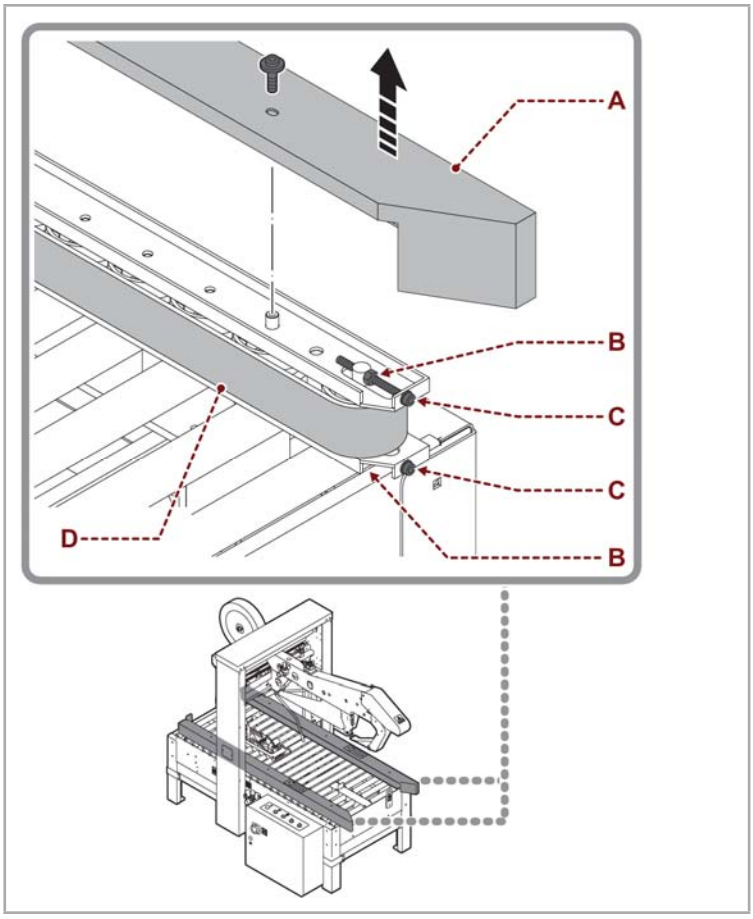
Important

Before performing any replacement operation, disconnect the power supply.

9.2. REPLACEMENT OF CONVEYOR BELT

Proceed as indicated.

1. Deactivate the main electrical knife to stop the machine under safe conditions.
2. Remove transmission cover **(A)**.
3. Loosen nut **(B)**.
4. Operate screws **(C)** to completely loosen tape **(D)**.
5. Remove tape **(D)** and replace it.
6. Adjust belt tension. (See “conveyor belt adjustment”).
7. Repeat the operations described to replace the other belt.
8. Start conveyor movement to check correct operations.
9. Re-assemble the casing **(A)** at the end of the operation.



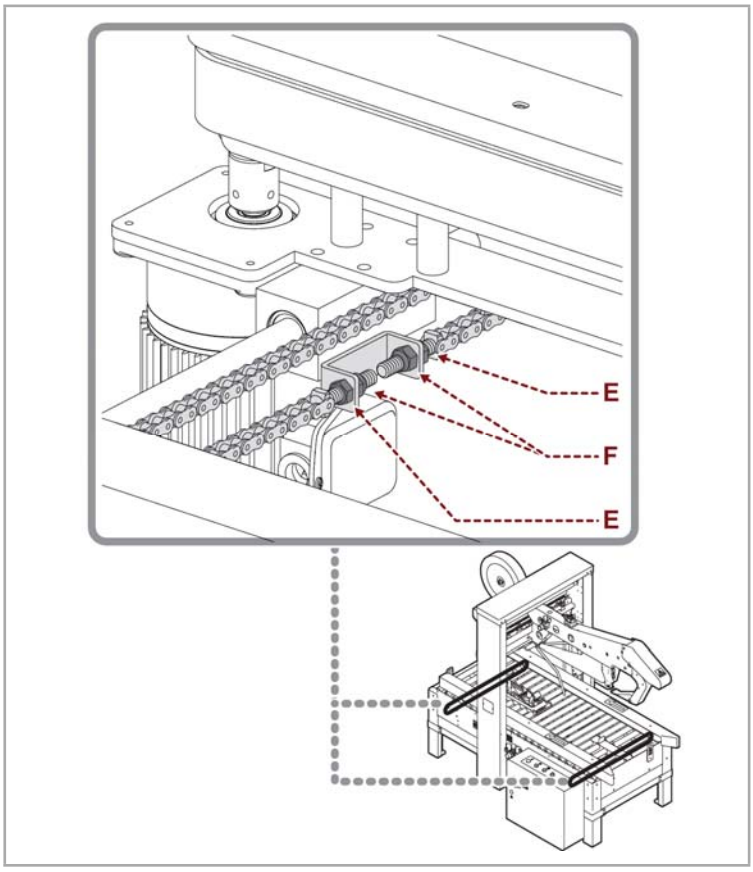
Caution - Warning

Before re-starting the machine, check that no tools or other equipment has been left near the moving parts.

9.3. HOW TO REPLACE THE TRANSPORT UNIT DRIVING CHAIN

Proceed as indicated.

1. Deactivate the main electrical knife to stop the machine under safe conditions.
2. Unscrew the nuts **(Q)** to loosen chains **(R)** completely.
3. Remove the chain links **(T)** and remove chains **(R)**.
4. Install the new chains and lock them with the chain links.
5. Adjust chain tension.
   (See “how the adjust the driving chain of the transport unit”).
6. Carry out the operation on both driving units.



Important

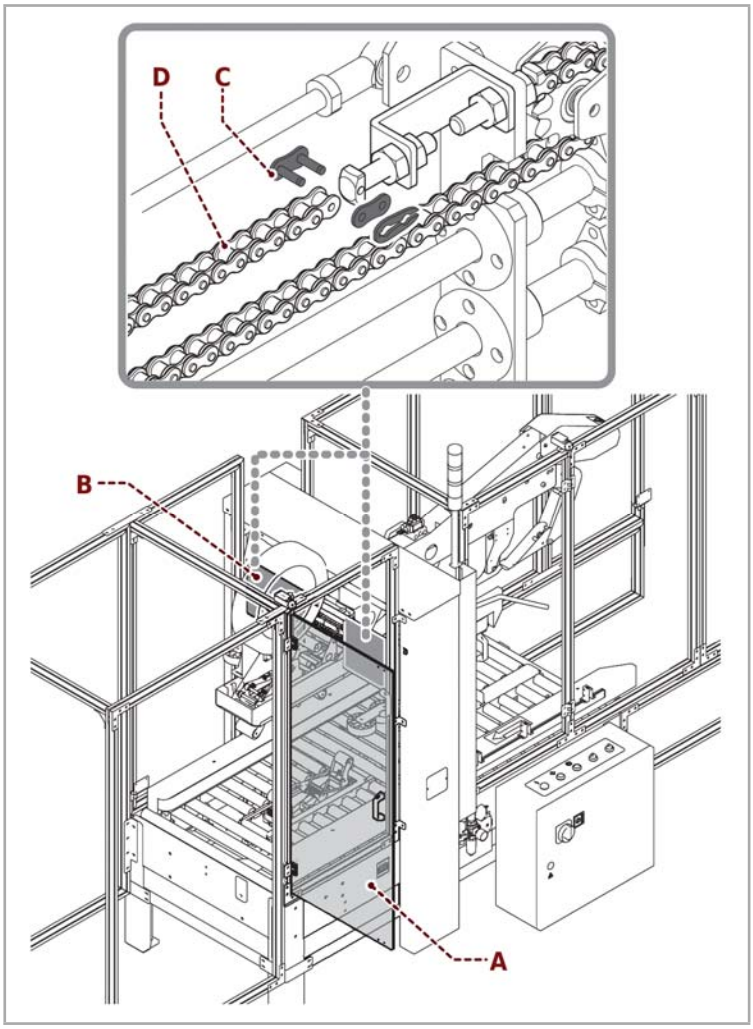
Replace one chain at a time to avoid misalignment of conveyor belts in relation to taping head.

7. Restart the machine and check that it functions correctly.

Caution - Warning

Before re-starting the machine, check that no tools or other equipment has been left near the moving parts.

9.4. CHANGE THE SIDE PRESSERS HANDLING CHAIN



Proceed as indicated.

1. Deactivate the main electrical knife to stop the machine under safe conditions.
2. Open hatch **(A)**.
3. Remove transmission cover **(B)**.
4. Remove the split link **(C)** and remove the chain **(D)**.
5. Install a new chain, closing it with the link.
6. Refit guard **(C)**.
7. Close the **(A)** door.
8. Restart the machine and check that it functions correctly.

Caution - Warning

Before re-starting the machine, check that no tools or other equipment has been left near the moving parts.

9.5. LIST OF THE RECOMMENDED SPARE PARTS

List of the spare parts of easy wear and of which it would be necessary to have available to avoid long operation stops of the machine.

For ordering, contact your local Dealer and refer to the spare parts catalogue.

- N. **1** main spring of bottom taping unit.
- N. **1** main spring of top taping unit.
- N. **2** cutting levers springs.
- N. **2** cutting blades.

Important

Substitute the parts that are worn with genuine spare parts.
Use the oils and greases specified in the manual.
All these measures may guarantee the expected operating and safety level of the machine.

9.6. MACHINE DISPOSAL AND SCRAPING

Important

These operations must be performed by specialised personnel in accordance with the standards in force on workplace safety.
Do not scatter non biodegradable products, lubricant oil and non-iron components (rubber, PVC, resins, etc.) in the environment.).
Discharge them in compliance with current regulations.

Useful information for the disposal of machines and machine parts.
Scrapping must be performed by qualified personnel.
Construction material:

- Low-density linear polyethylene **(L.L.D.PE)**;
- Steel, aluminium and cast-iron;
- Copper and silver in the electrical/electronic components;
- Rubber, resins and fibres.

None of the component materials is harmful or poisonous.
Special care must be taken when disposing of leftover oil or grease from the motor reduction units.
Do not dump these materials in the environment and do not dispose of them as household refuse.

10. ENCLOSED DOCUMENTATION

10.1. WARRANTY CONDITIONS

ROBOPAC S.p.A. pledges, within the limits described herein, to replace or repair, at no charge, the parts that become defective during the **12** (twelve) months following the date indicated on the company's shipping documents.

To utilise the warranty, the user must immediately notify the company that a defect exists, always referring to the machine serial number.

ROBOPAC S.p.A., in its final judgement, will decide whether to replace the defective part or request it to be shipped for tests and/or repairs.

By replacing or repairing the defective part, **ROBOPAC S.p.A.** fully complies with its warranty obligations and will be released from all liabilities and obligations relative to transport, travel and hotel expenses for technicians and installers.

ROBOPAC S.p.A. will never be held responsible for any losses due to lack of production or injuries to persons or damage to things caused by malfunctions or forced suspension in using the machine covered by the warranty.

THE WARRANTY DOES NOT COVER:

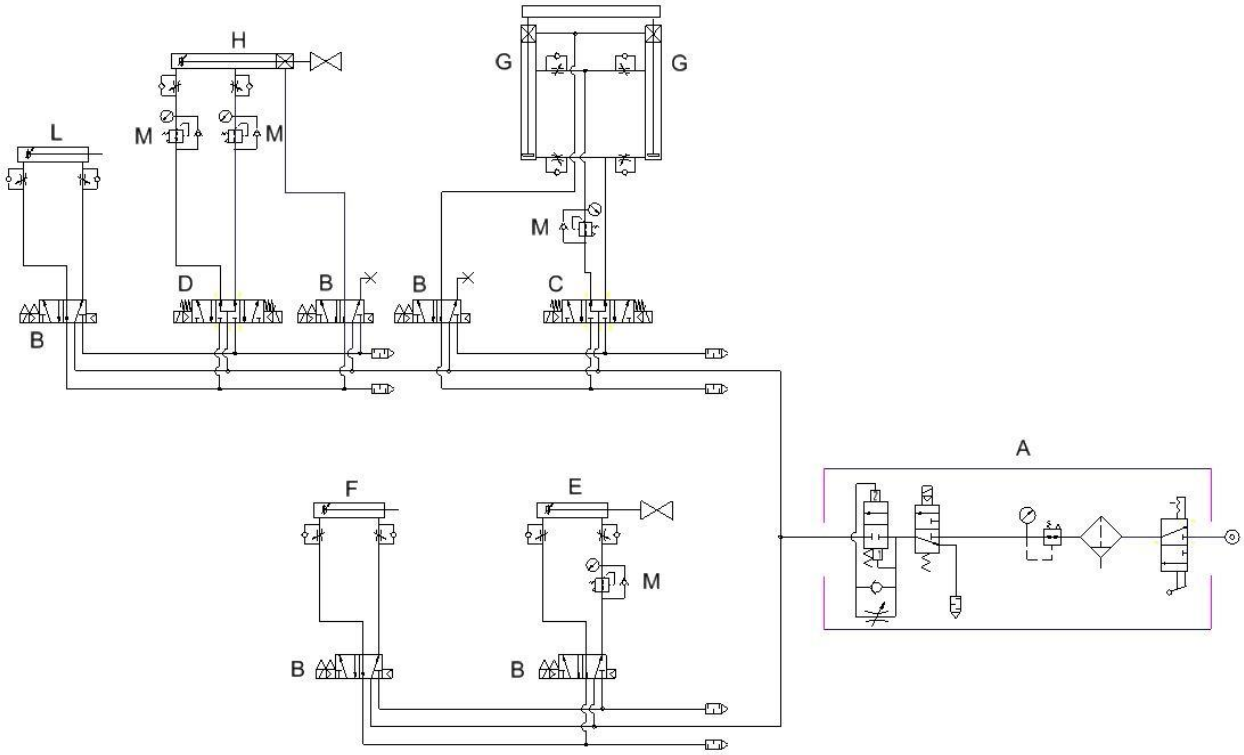
- damage caused by transport.
- damage due to incorrect installation.
- improper use of the machine or negligence.
- tampering or repairs by unauthorised personnel.
- lack of maintenance.
- parts subject to normal wear and tear.

For purchased components and parts, **ROBOPAC S.p.A.** offers the user the same warranty conditions that the company obtains from the suppliers of the aforementioned components and/or parts.

ROBOPAC S.p.A. does not guarantee the conformity of machines to current standards in countries that are not part of the European Union.

Concerning any adjustments to standards of the country in which the machine is installed, the user will be fully responsible for the changes made, releasing **ROBOPAC S.p.A.** from any obligation and /or liability relative to any claims that may be submitted by third parties due to non-compliance with the referenced standards.

10.2. PNEUMATIC CIRCUIT DIAGRAM



Key

A) Air treatment unit
B) Solenoid valve
C) Solenoid valve
D) Solenoid valve
E) Pneumatic cylinder
F) Pneumatic cylinder
G) Pneumatic cylinder
H) Pneumatic cylinder
L) Pneumatic cylinder
M) Regulator

10.3. T50 - T75 - T50/30 TAPING UNIT OPERATING MANUAL

The following are instructions for use provided directly by the manufacturer.

T50
T75
T50/30

ROBOTAPE

GB USE AND MAINTENANCE MANUAL

“Translation of the original instructions”

TAPING UNIT

English Edition 0/0115

SUMMARY

2 TECHNICAL INFORMATION

2.1. DESCRIPTION OF THE TAPING UNIT 3
2.2. DESCRIPTION OF COMPONENTS 3
2.3. DIMENSIONS..... 4

5 INFORMATION ON ADJUSTMENTS

5.1. ADJUSTING THE TAPING UNIT 5
5.2. ADJUSTING THE FRONT FLAP LENGTH ... 6

6 ABOUT THE USE

6.1. MOUNTING THE TAPE..... 8

7 MAINTENANCE INFORMATION

7.1. REPLACING THE BLADE..... 10
7.2. CORRECTING TAPING ERRORS.....11

Chapter 2

TECHNICAL INFORMATION

2.1. DESCRIPTION OF THE TAPING UNIT

The taping unit in question serves to tape cardboard boxes of pre-defined sizes.

Model **T50** uses tapes up to 50 mm wide.

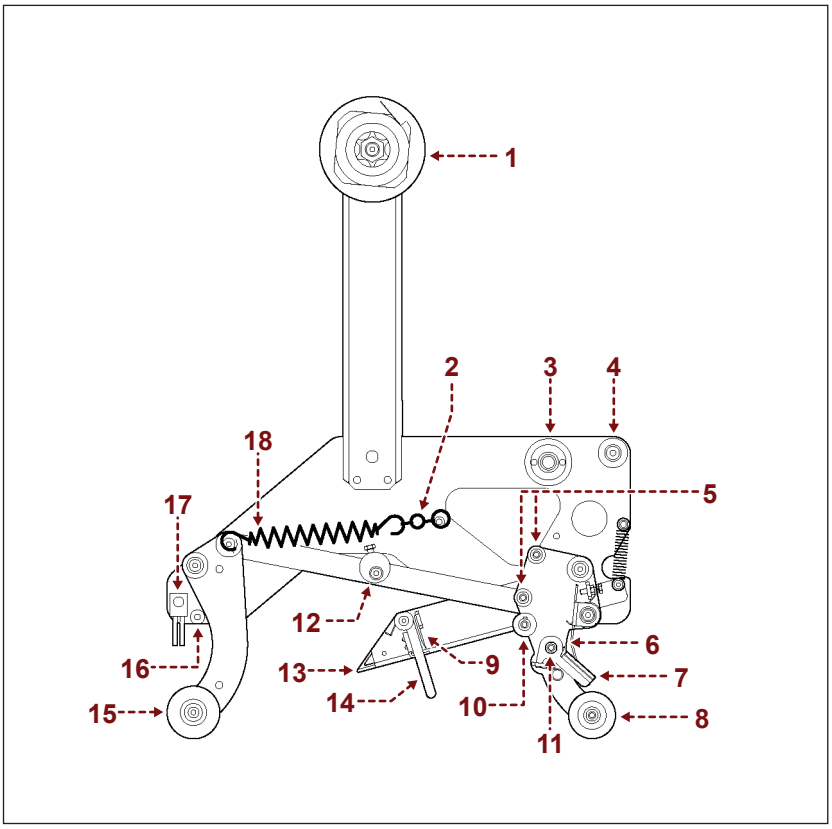
Model **T75** uses tapes up to 75 mm wide.

It can be installed on any cardboard box taping machine predisposed for such a unit.

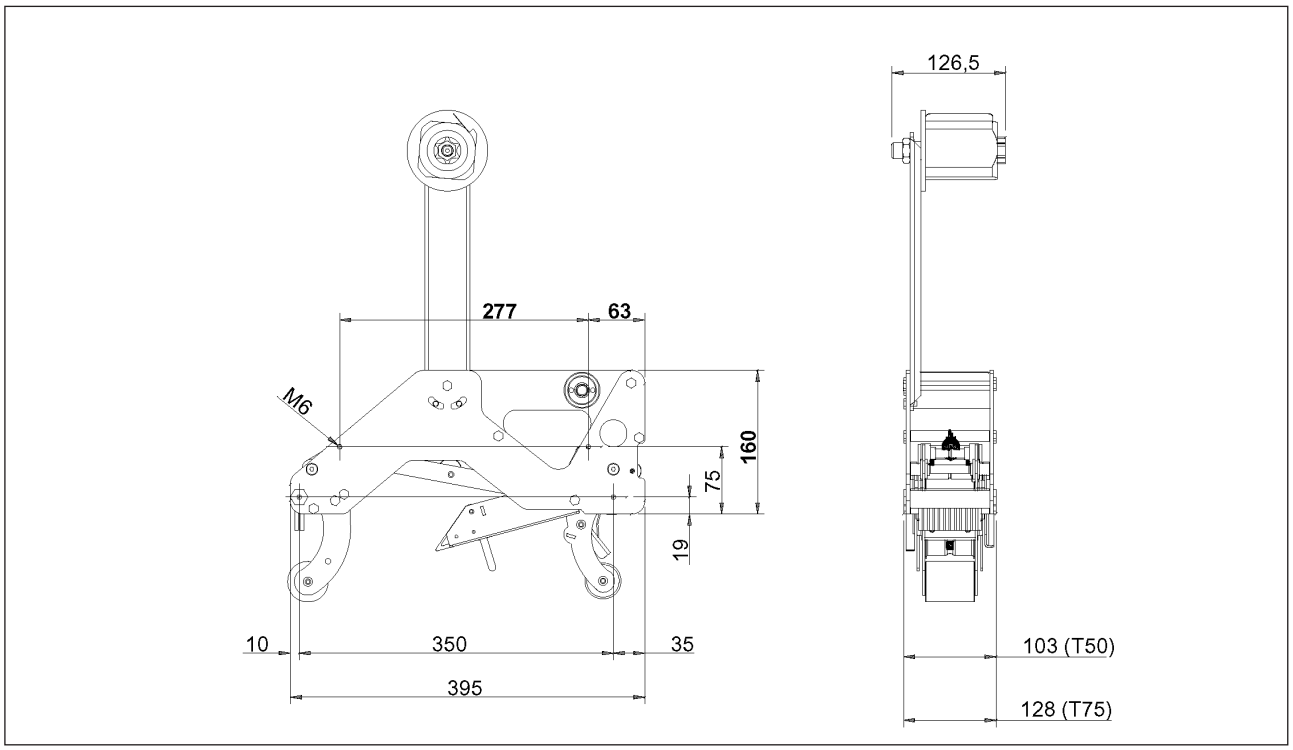
It is also possible to adjust the length of the front flap as needed.

2.2. DESCRIPTION OF COMPONENTS

1) Roll hub.
2) Spring hooking rings.
3) Knurled nonreturn roller.
4) Return roller.
5) Recovery roller.
6) Tape shaper sheet.
7) Tape contrast sheet.
8) Infeed roller.
9) Blade.
10) Knurled transmission roller.
11) Smooth transmission roller.
12) Adjusting cam.
13) Cut adjusting guide.
Note* : *To be removed for 50 mm seams.
14) Blade protection.
Note*: *Not present in the T30/50 version.
15) Outfeed roller.
16) Stop pin.
17) Brush.
18) Main spring.



2.3. DIMENSIONS



Reel dimensions

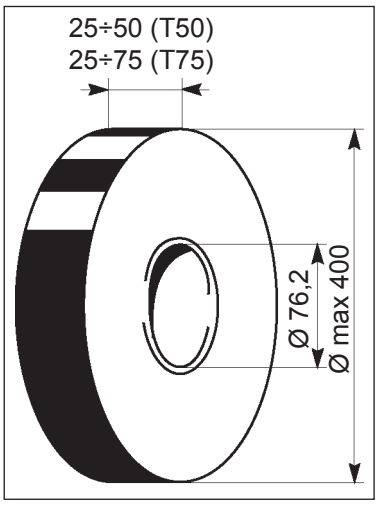
– Max reel diameter: .....400 mm

– Internal roll holder pipe diamete: ..... 76,2 mm

– Width:
  Mod· T50: ..... 25÷50 mm
  Mod· T75: ..... 25÷75 mm

Types of adhesive tape

– PVC - polypropylene (PPL)



Chapter 5

INFORMATION ON ADJUSTMENTS

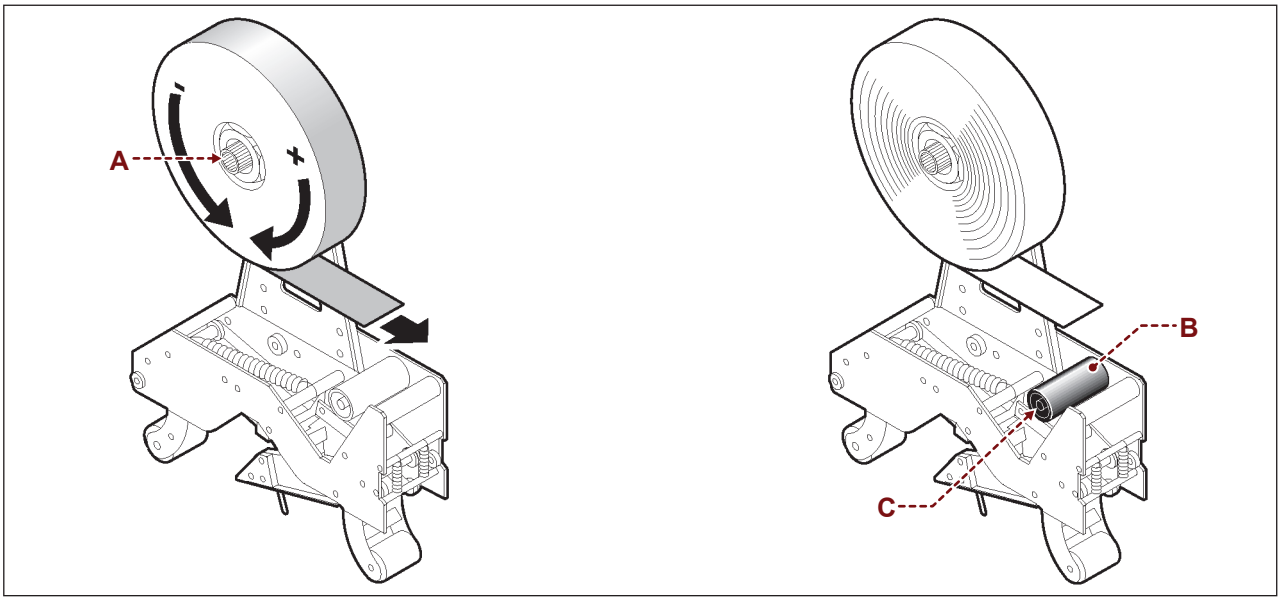
5.1. ADJUSTING THE TAPING UNIT

Adjust the tension on the belt by means of the hand wheel **(A)**:

– Loose roll holder for PVC;
– Roll holder with slight friction for PPL.

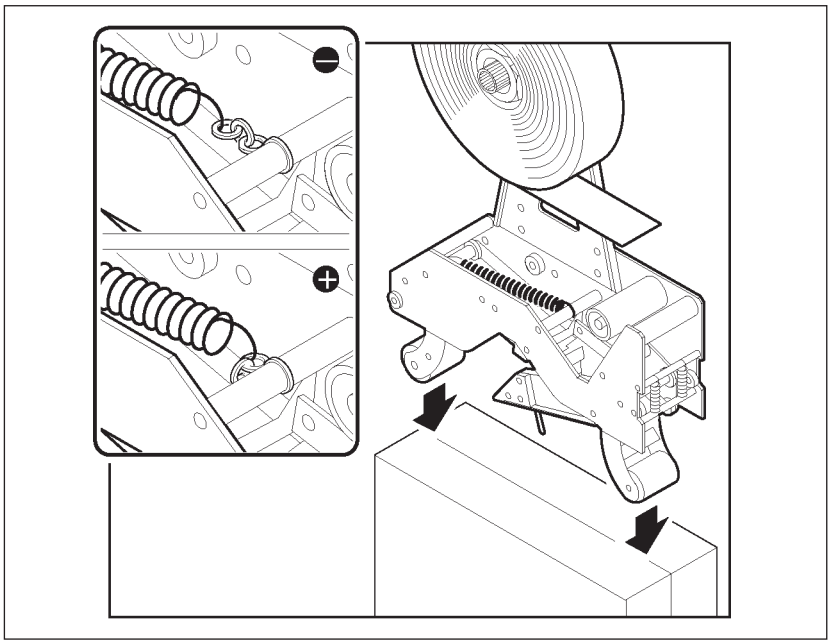
Adjust the tension on the clutch-controlled roller **(B)** by means of the screw **(C)**:

– Clutch released for PVC;
– Clutch slightly engaged for PPL.



Adjust the main spring:

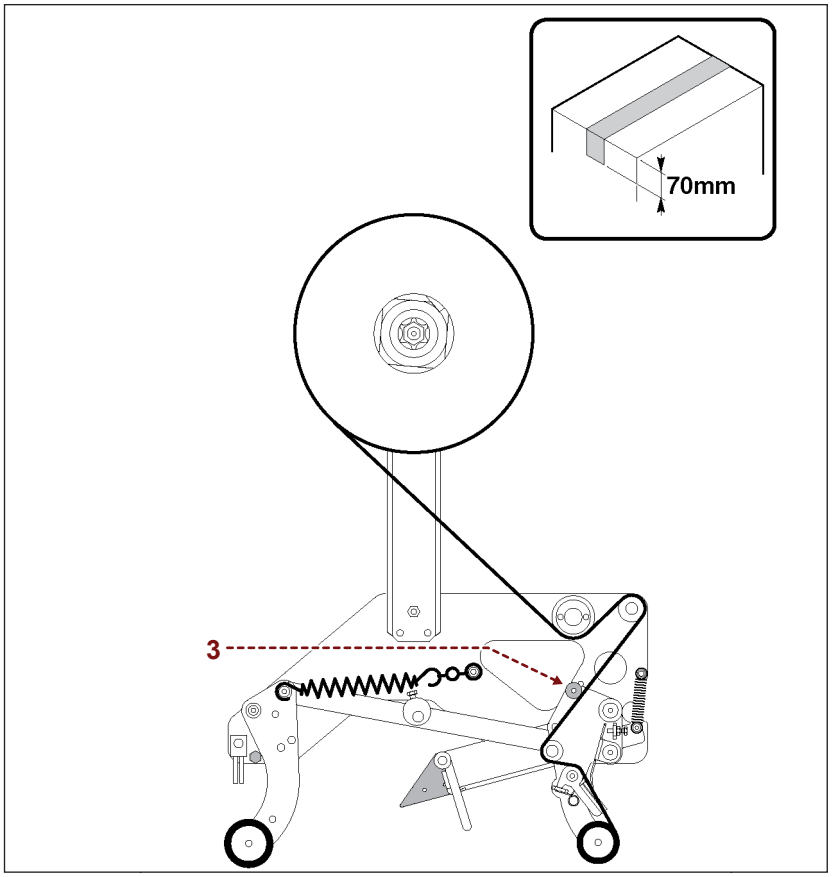
– Load the spring less for light boxes;
– load the spring more for sturdy boxes.



5.2. ADJUSTING THE FRONT FLAP LENGTH

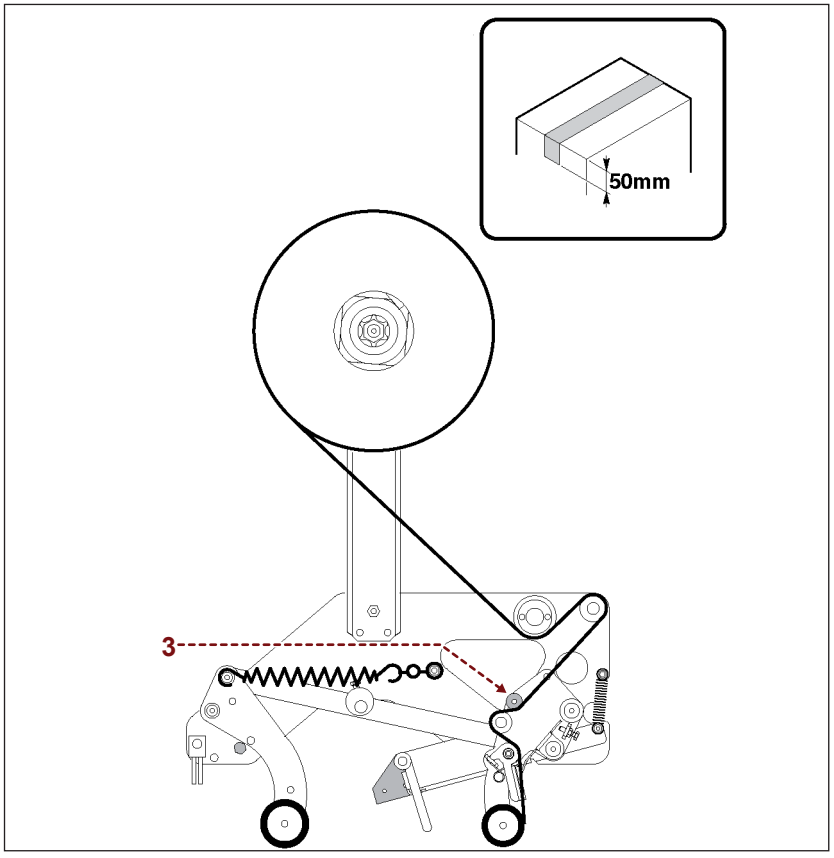
70 mm flap

Arrange parts **(1-2-3)** as shown in the figure.

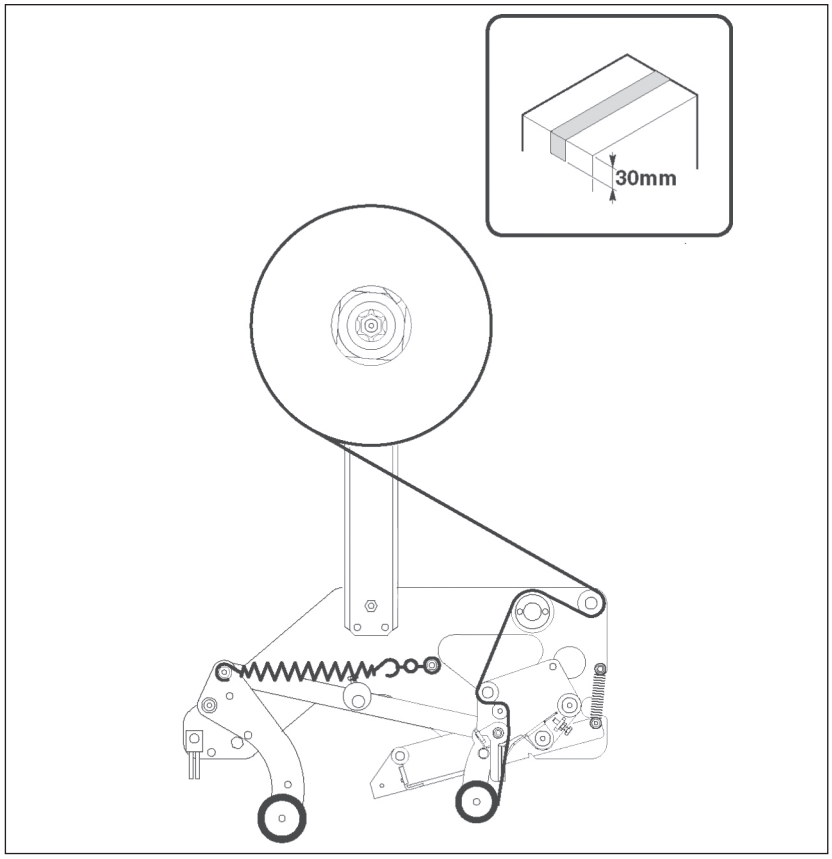


50 mm flap

Arrange parts **(1-2-3)** as shown in the figure.



30 mm flap



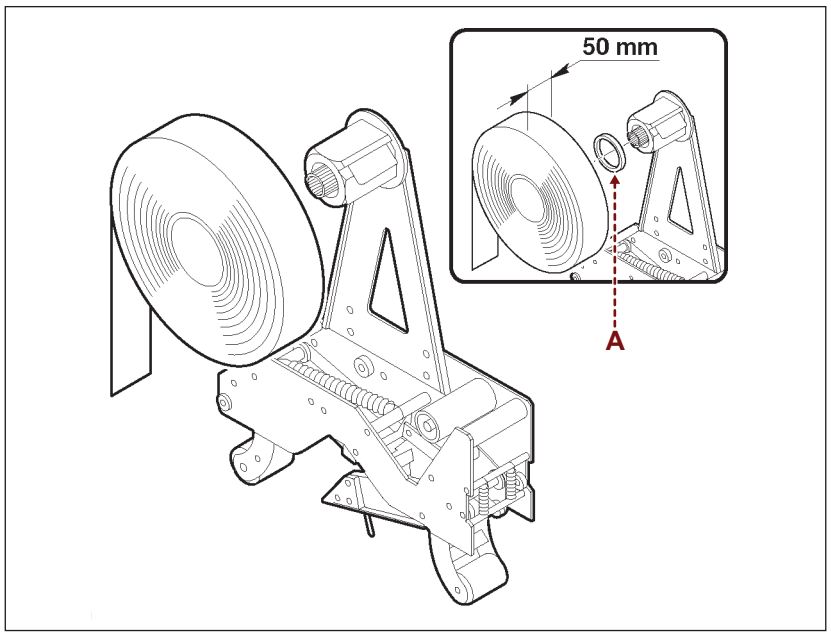
6.1. MOUNTING THE TAPE

The steps below are valid for both the upper and lower taping unit.

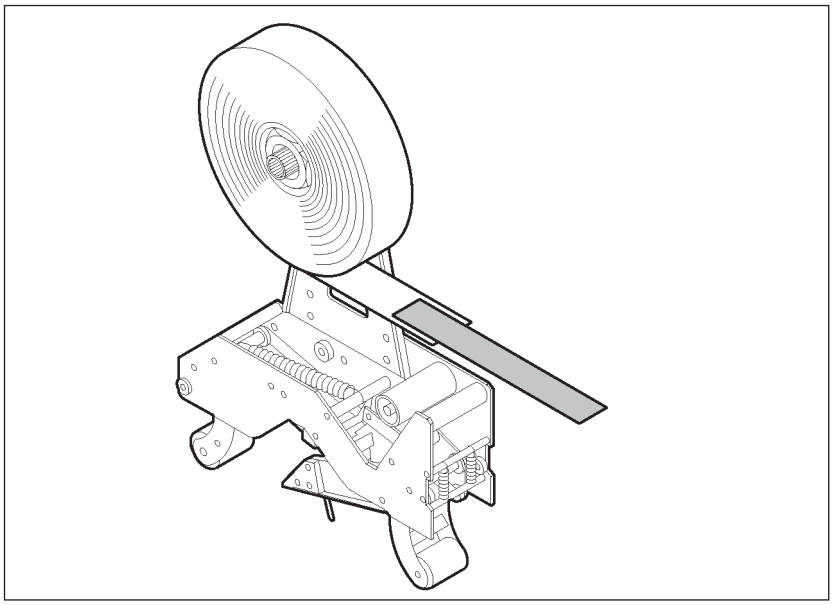
– Position the roll of adhesive tape on the roll holder.

Important

Make sure the adhesive surface is in the correct position. If installing a roll of 50 mm wide tape (2") on the T75 taping head, you must also include a spacer (A) between the reel and the hub.



– Glue the tape (provided) to the tape pull.



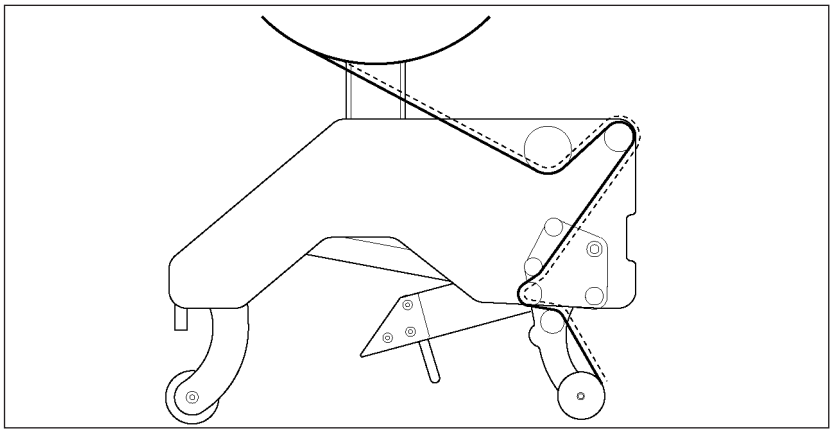
– Insert the tape pull, following the path shown on the plate.

Important

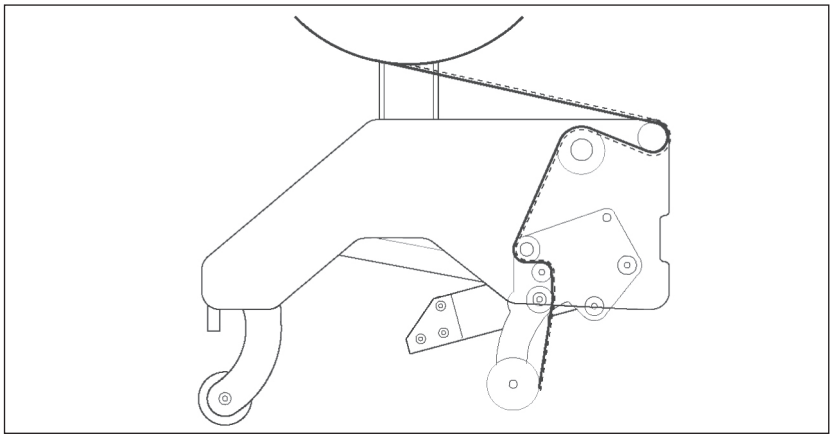
The dashed line refers to the adhesive side of the reel.

– Pull and cut off excess tape.

70 and 50 mm flap



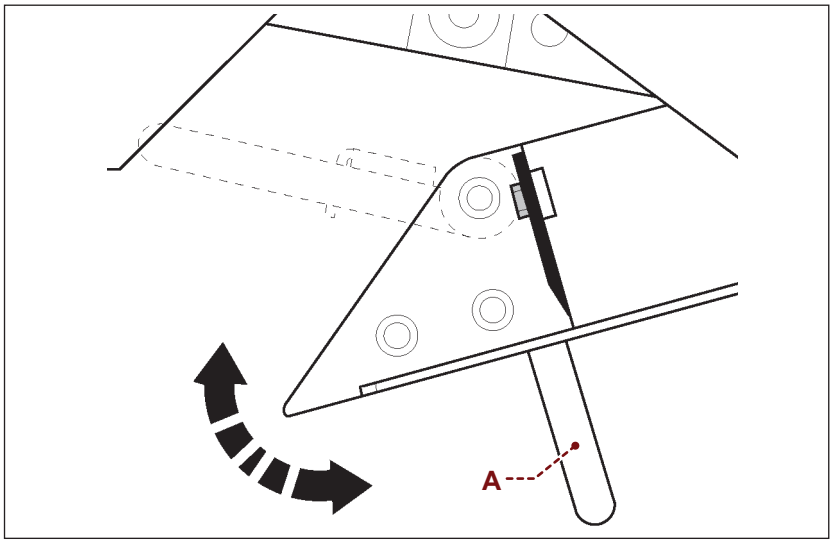
30 mm flap



7.1. REPLACING THE BLADE

– To replace the blade, raise the guard **(A)** as shown in the figure.

Note: Guard (A) is not present on the T50/30 taping head (30 mm flap).



– Loosen the screws **(B)**.

– Remove the blade **(C)**.

– Insert the new blade, making sure the sharp side is correctly positioned.

– Tighten the screws **(B)**.

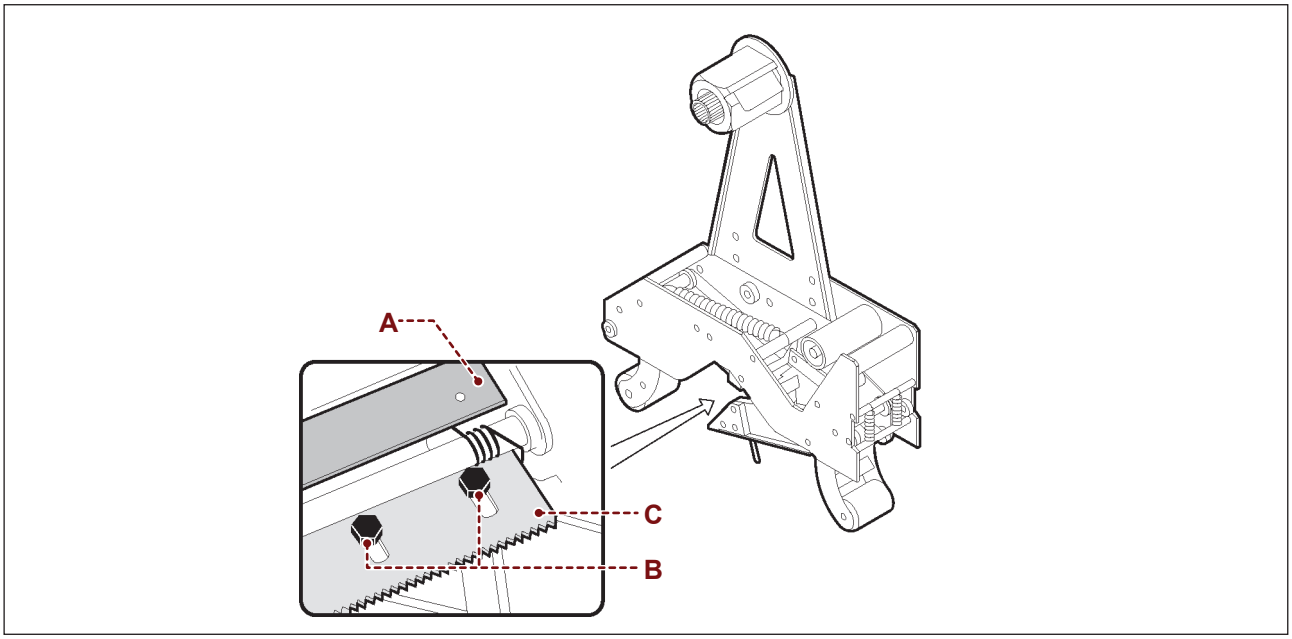
– Release the guard **(A)**.

Important

Make sure the blade does not interfere with the guard before fastening it in place.

Danger Warning

The blade is very sharp.



7.2. CORRECTING TAPING ERRORS

Below are a few errors that may occur during normal operation.

Problem

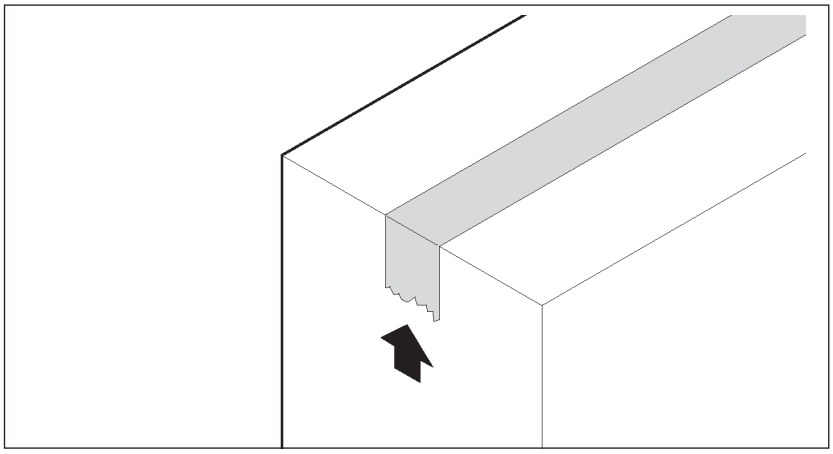
Ragged cut or no cut.

Remedy

Clean or replace the blade.

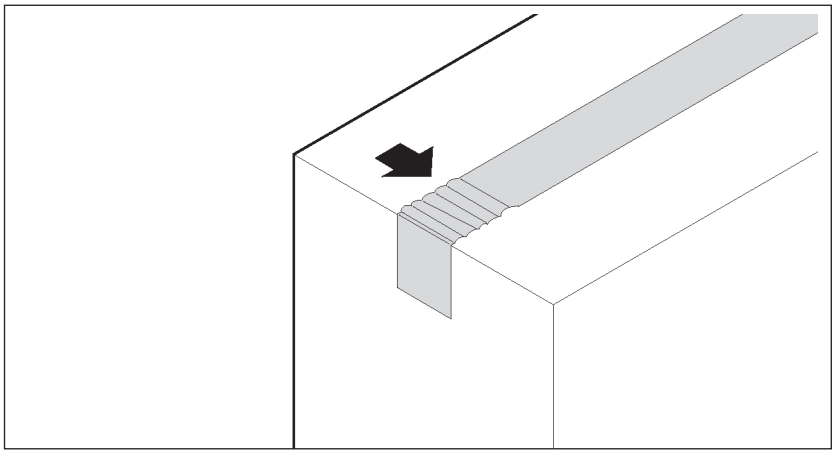
Important

With weak glue tapes it may be necessary to increase the braking effect on the roll holder roller and the first transmission roller.



Problem

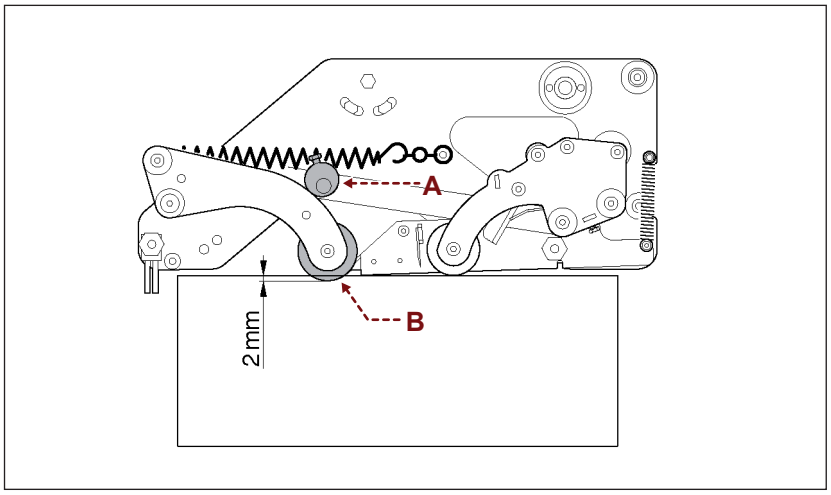
Tape curls.



Remedy

Always - *Upper unit: adjust the height of the upper head (approximately 3 mm from the box*)

Only if the error persists - *Upper and lower unit: adjust the eccentric part* ***(A)*** *to change the position of the roller* ***(B)*** *(approximately 2 mm underneath the slide surface of the box, see figure)*



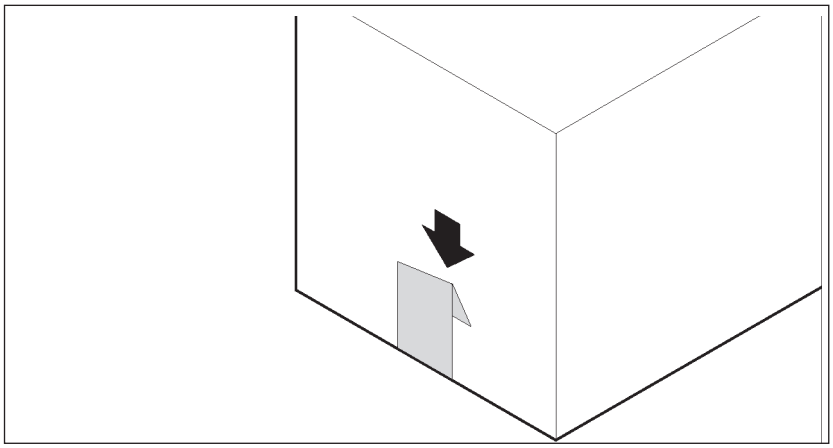
Problem

Tape creases.

Remedy

– *Make sure the rollers turn freely.*

– *Make sure the friction on the roll holder is very slight.*



10.4. CE STATEMENT OF CONFORMITY

3710308617_002_0817 CE_ENG.DOCX

EC DECLARATION OF CONFORMITY

(Annex IIA DIR. 2006/42/EC)

Robopac S.p.A.
Via Fabrizio da Montebello, 81 - 47892
Gualdicciolo Republic of San Marino

DECLARES THAT THE MACHINE

ROBOPAC MACHINERY
Robopac S.p.A.
Via Fabrizio da Montebello, 81
47892 – Gualdicciolo
Repubblica di San Marino
http://www.robopac.com/

CE

MODELLO MODEL		
MATRICOLA SERIAL NUMBER		
DATA DATE OF MANUF.		
ALIMENTAZIONE SUPPLY VOL.		[V]
FREQUENZA FREQUENCY		[HZ]
N° FASI PHASE		
ASSORBIMENTO ABSORPTION		[A]
POTENZA TOT. TOTAL POWER		[kW]
CONSUMO ARIA AIR CONSUMPTION		[nl/min]
PRESSIONE MAX MAX PRESSURE		[bar]
PESO WEIGHT		[kg]

IS IN CONFORMITY WITH DIRECTIVES

DIRECTIVE 2006/42/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 May 2006 on machinery, and amending Directive 95/16/EC.
DIRECTIVE 2014/30/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility.

Reference to harmonised standards and relevant annexes, in applicable points:
EN ISO 12100:2010, IEC 60204-1:2016-10, EN 415-5:2010, EN 415-6:2013, EN 415-10:2014.

THE INDIVIDUAL AUTHORISED TO DRAFT THE TECHNICAL BOOKLET IS

Ing. Pierangelo Laghi - R&D Manager — **c/o Aetna Group S.p.A.**

S. P. Marecchia, 59 — **47826 Villa Verucchio** — **Rimini, Italy**

Document date and place — **Ing. Pierangelo Laghi - R&D Manager**

San Marino, — **Signature**

ROBOPAC MACHINERY
Robopac S.p.A.
Via Fabrizio da Montebello, 81
47892 Gualdicciolo
Repubblica di San Marino

tel. (+378) 0549 910511
robopacmachinery@robopac.com
www.robopac.com

Decreto Riconoscimento del 05/12/1983
Capitale Sociale € 1.000.000 Cod. Op. Ec. 02346