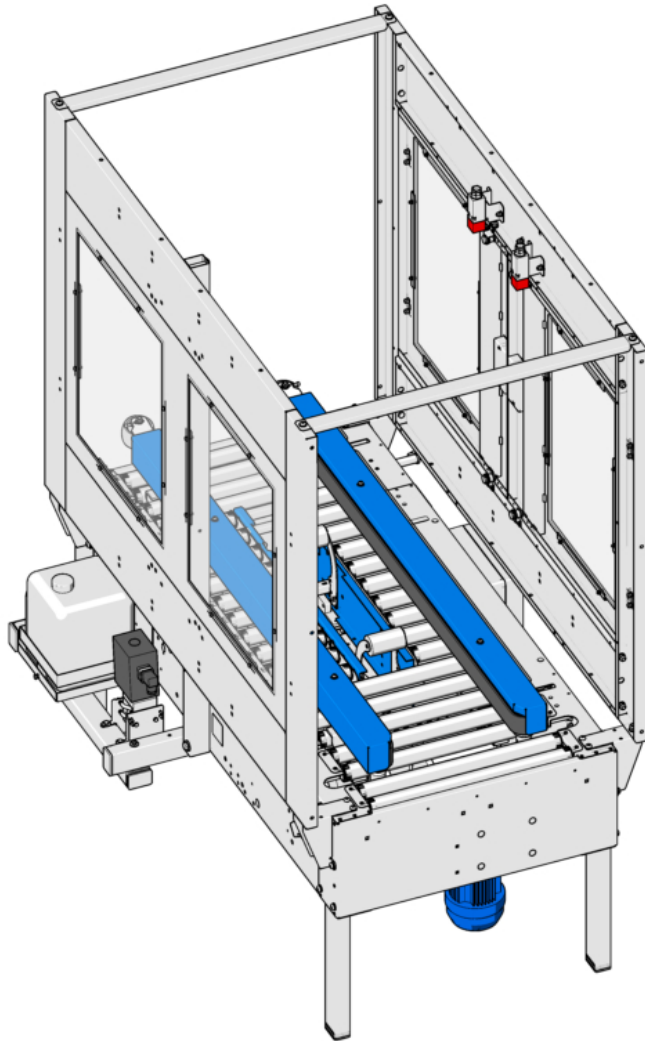


GEM B520-GP

EN

USE AND MAINTENANCE
MANUAL



Code
MANT-10076-02

CE

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Dichiarazione di Conformità CE – Tipo A

EC Declaration of Conformity – Declaration “CE” de conformité - EWG - Konformitätserklärung

Declaracion CE de conformidad - CE Gelijkvormigheidsattest

Noi Costruttori - *We manufacturers* - *Nous fabricants* - *Wir Hersteller* - *Nosotros fabricantes* - *Wij* :

COMARME S.r.l. a socio unico
Via Torrianese, 58
47824 Poggio Torriana (RN) - Italy

Dichiariamo sotto la sola nostra responsabilità che la macchina / l'impianto :
Declare under our sole responsibility that the following machinery / equipment :
Déclarons sous notre seule responsabilité que la machine / équipement suivante :
Erklären in alleiniger Verantwortung, dass die Maschine / Anlage :
Declaramos bajo nuestra unica responsabilidad que la siguiente maquinaria / instalación :
Verklaren dat de volgende machine:

Tipo - *Type* - *Type* - *Typ* - *Tipo* - *Type* :

Modello - *Model* - *Modèle* - *Modell* - *Modelo* - *Model* :

N° di serie - *Serial N°* - *N° de série* - *Serien N°* - *N° de serie* - *Seriennummer* :

Anno di costruzione - *Year of construction* - *Année de fabrication* - *Baujahr* - *Año de construcción* - *Bouwjaar* :

- come descritta nella documentazione allegata è in conformità con le Direttive del Parlamento Europeo e del Consiglio 2006/42/CE e successive modifiche, 2014/30/UE e successive modifiche, 2014/35/UE e successive modifiche, e riporta la apposita targhetta con marcatura CE. Inoltre dichiara il Sig. Angelo Forni, in qualità di legale rappresentante della stessa, persona autorizzata a costituire il fascicolo tecnico.

- *as described in the documentation hereby enclosed, complies with the Directives of the European Parliament and of the Council 2006/42/EC and amendments, 2014/30/UE and amendments, 2014/35/UE and amendments, and is provided with the appropriate plate with the CE mark. And furthermore declares Mr. Angelo Forni, as the company legal representative, to be the person authorised to compile the technical file.*

- *décrite dans la documentation annexe, est conforme aux Directive du Parlement Européen et du Conseil 2006/42/CE et de ses modifications ultérieures, 2014/30/UE et de ses modifications ultérieures, 2014/35/UE et de ses modifications ultérieures, et est équipée avec la plaquette de identification marqué CE. De plus, le fabricant déclare que M. Angelo Forni, en qualité de Représentant légal de ladite société, est autorisé à constituer le dossier technique.*

- *wie in den hier beigefügten Unterlagen beschrieben, mit den Richtlinien des Europäischen Parlaments und des Rates 2006/42/EG und ihrer nachfolgenden Änderungen, 2014/30/UE und ihrer nachfolgenden Änderungen, 2014/35/UE und ihrer nachfolgenden Änderungen, und ist mit dem vorgeschriebenen CE-Zeichen vorgesehen. Herr Angelo Forni ist in seiner Eigenschaft als gesetzlicher Vertreter des Herstellers berechtigt, die technische Dokumentation zu erstellen.*

- como es descrita en la documentacion aqui adjuntada, cumple con las Directivas del Parlamento Europeo y del Consejo 2006/42/CE y sus modificaciones sucesivas, 2014/30/UE y sus modificaciones sucesivas, 2014/35/UE y sus modificaciones sucesivas, ademas es suministrada con la marca apropiada de la CE. Además, declara el Sr. Angelo Forni, en calidad de representante legal de la misma, persona autorizada a redactar el libro técnico.


- *in overeenstemming is met de Richtlijnen van het Europees Parlement en de Raad 2006/42/EG en de daarin aangebrachte wijzigingen, 2014/30/UE en de daarin aangebrachte wijzigingen, 2014/35/UE en de daarin aangebrachte wijzigingen, en is uitgerust met het CE-identificatieplaatje. En verklaart dat dhr. Angelo Forni als wettelijk vertegenwoordiger geautoriseerd is het technisch dossier op te stellen.*

Abbiategrasso, li

COMARME S.r.l.

Il legale rappresentante

Angelo Forni



USE OF THE MANUAL

The use and maintenance manual is the document accompanying the machine from its manufacture to its dismantling. Therefore it is an integral part of the machine itself. The manual must be read before starting ANY ACTIVITY involving the machine, including its handling. For a better consultation the instruction manual is divided into the following sections:

Section 1

Transport, packing, handling and inspection on the purchased product.

Section 2

Description of the machine and of its field of application. The technical features of the machine are also listed.

Section 3

Installation of the machine.

Section 4

Description of the controls to use the machine: general safety prescriptions, first start up, calibrations, normal use and stop.

Section 5

Ordinary and extraordinary maintenance.

Section 6

Dismantling.

SYMBOLS USED



The operations that can be dangerous, if they are not carried out correctly, are indicated with this symbol.



The operations whose execution requires qualified or specialized staff, in order to avoid any danger, are indicated with this symbol.

It is advisable to train the staff in charge of the machine and to check that what is envisaged is understood and carried out.

INFORMATIVE LETTER

This instruction and maintenance manual is an integral part of the machine and must be easily available to the staff in charge of its installation and maintenance. The installer and the maintenance staff must know the content of this manual.

The descriptions and the pictures it contains are not to be considered as binding.

Although the main features of the machine described in this manual are not subject to change, COMARME S.r.l. reserves the right to change any part, detail and accessory it deems necessary to improve the machine or for manufacturing or commercial requirements, at any time and without being obliged to update this manual immediately.



To ensure the right working of the machine and of its safety devices, it must be installed only by qualified and authorized staff



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CUSTOMER CARE TECHNICAL SERVICE

COMARME S.r.l.

Quartiere Mirabella snc - 20081 Abbiategrasso (MI)

ITALY

Tel. +39 02 9422002

Fax +39 02 9422096

E-mail: info@comarmesrl.it**WARNING**

The original configuration of machine must not be changed at all.

👉 On receiving the machine make sure the supply corresponds to what has been ordered.

In case of non conformity please inform COMARME S.r.l. immediately. Also make sure that the machine has not been damaged during transport.

1 TRANSPORT AND HANDLING

1.1 Warnings for transport

The packagings are prepared according to the dimensions, the weight, the degree of protection required, the lifting safety. Thanks to the methods used, the packagings ensure stability and the fastening of the elements they contain.

ALL THE MACHINE HANDLING OPERATIONS MUST BE CARRIED OUT ACCORDING TO THE FOLLOWING BASIC RULES:

- ☞ The handling operations will be carried out using a suitable system for the object to be moved with a rated load capacity higher than the weight to be lifted, which is indicated on the structure.
- ☞ While using or choosing auxiliary systems, such as ropes, lifting chains or belts pay special attention to their final geometry during the lifting and to their real load capacity.
- ☞ If the lifting chains touch some machine parts, use nylon belts or ropes or chains wrapped in jute or clean cloths. During the slinging and handling operations pay special attention to avoid damaging machined or painted surfaces.
- ☞ The handling operations must always take place gradually in order to prevent tearing, jerking and dangerous situations for people and things.
- ☞ The head of the department must always follow all the standards and the legal provisions concerning accidents and safety at work, that are in force nationally, locally and in business.
- ☞ Some areas where to deposit materials must be identified.

1.2 Transport

To transport the machine out of Italy, the machine itself is put into a barrier bag to ensure it is protected against bad weather. Then it is packed in a wooden case. To lift it use a fork lift truck.



WARNING

Before handling the machine and opening the package, follow the instructions on the package itself.

The transport on pallet is generally used to deliver the machine and its accessories on the national territory. Thanks to this system the machine is fastened to a pallet by means of straps and then it is covered with some cardboard to protect its parts during transport (see picture 1).



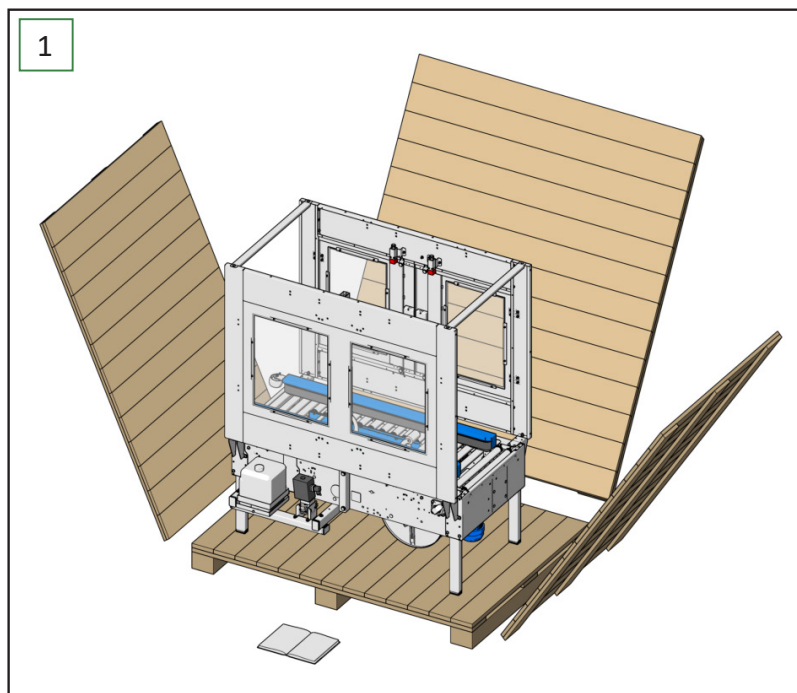
WARNING

Do not load pallets with unprotected parts on open trucks. Always check the point where the forks rest under the pallet.



WARNING

Any options ordered with the machine rest on additional pallets.



1.3 Storage

During transport and storage make sure the temperature is between -5 and 40° C.

If the machine is stored, make sure the relative humidity is between 30% and 95%.

1.4 Unpacking

If the machine is received in a wooden case, unpack it using a hammer with nail puller. Open the case starting from the upper covering then remove the side walls.



WARNING

Always protect your hands with gloves. Pay attention to any protruding nails (see picture 2).



WARNING

Follow the instructions on the packaging before handling and opening it. In order to unpack the machine remove the external protective film, then cut the straps and extract the cardboard towards the top (see picture 3).



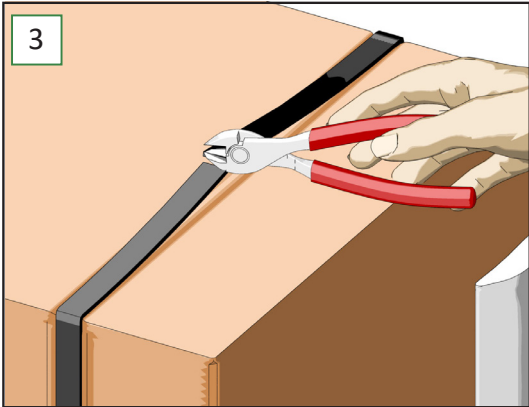
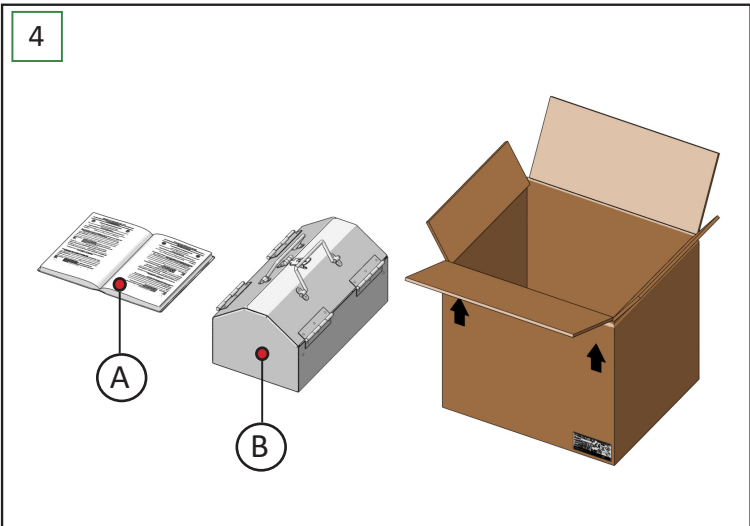
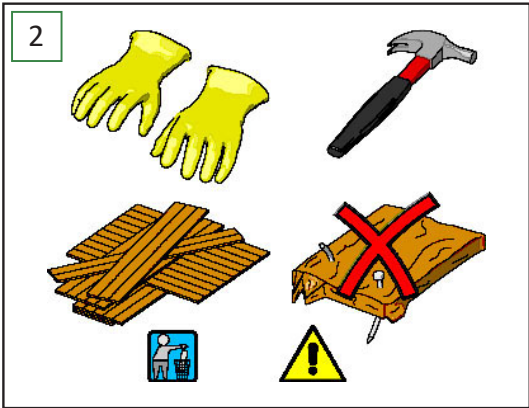
WARNING

Place the forks on the long side of the machine so that it rests on the supporting structure. Then rest the machine on the ground.



WARNING

Dispose of the packages properly delivering them to associations in charge of their elimination and recycling.



A - Use and maintenance manual with EC declaration of conformity.

B - Toolbox.

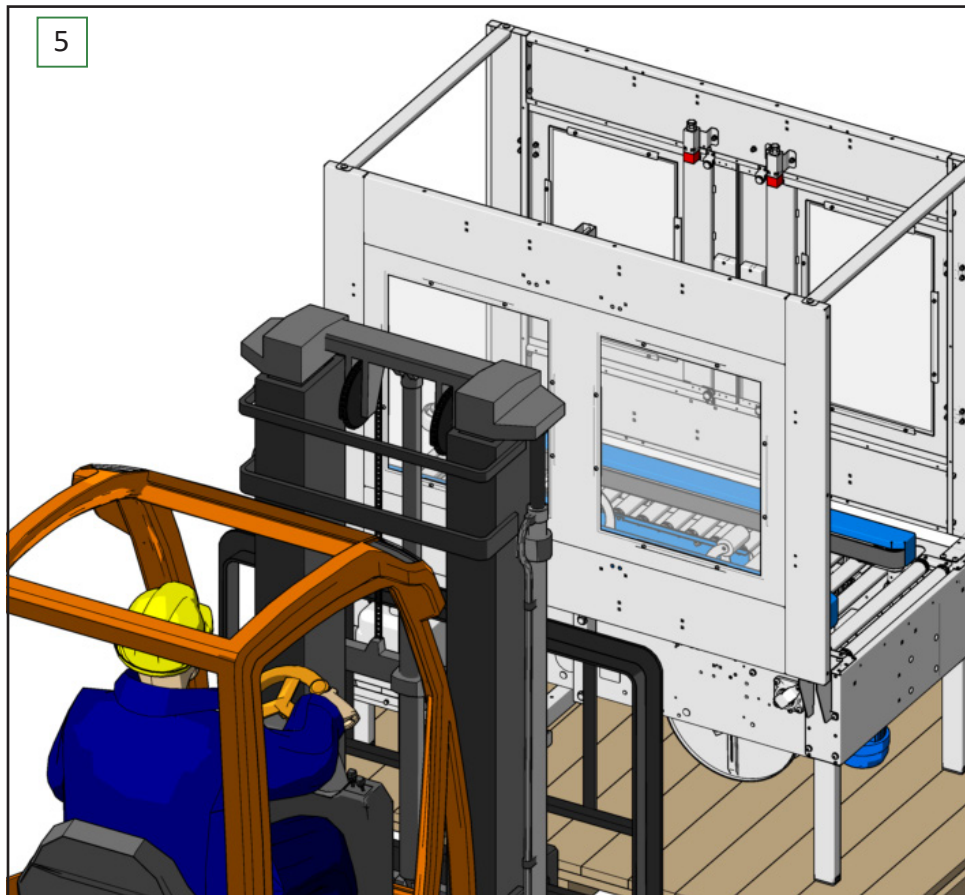
1.5 Handling

A fork lift truck can be used to handle the machine through the departments (see picture 5). Put the forks below the machine structure and remove it from the lower base pallet.



WARNING

During the handling always move very slowly. This operation must be assisted by an operator in charge of signalling.



2 DESCRIPTION OF THE MACHINE

2.1 Plate and labelling data

The manufacturer identification plate in compliance with standards 2006/42/EC is applied on the machine. The plate must not be removed for any reason, even if the machine is resold.

Always refer to the serial number (written on the plate itself) when contacting the manufacturer. Some pictograms with safety warnings are also placed on the machine; they must be strictly followed by everyone dealing with the machine.

The company is not to be held responsible for damage to property or accidents to people, which might occur if the above-mentioned warnings are not observed. In such a case, the operator is the only person responsible towards the relevant authorities.

6

○ Tipo NASTRATRICE ○		
Modello GEM B520-GP		
Matricola *	Anno di costruzione *	
Serial number	Year of construction	
Alimentazione Power supply	~ 1/PE	Tensione Voltage
		220 VAC
Corrente nominale Full load current	4,3 A	Frequenza Frequency
		50 Hz
Corrente di corto circuito Short circuit rating	<10 kA RMS sym.	
Pressione aria Air pressure	5,0 bar	Consumo aria ciclo Air consumption cyc
		4,0 NI
Peso Weight	180 kg	CE
COMARME S.r.l. Via Torriane, 58 47824 Poggio Torriana (RN) - ITALY		
○ MADE IN ITALY ○		

2.2 Description of the machine

The machine described in this manual is an automatic taping machine for sealing the lower part of cardboard boxes using some gummed paper.

The machine can be connected to a carton erector and placed in a production line.



WARNING

We recommend feeding the machine through an accumulation roller conveyor, or a similar system, to prevent the waiting boxes from being damaged by the pressure exerted between them.

The gummed rubber is enabled through the surface moistening. The moistening system consists of a peristaltic pump catching water from a tank through suitable pipes. The water is then sent to the small tank near the paper rollers.

The pump control gearmotor turns anticlockwise with a precise and fixed rotation (therefore it is not reversible). The suction and delivery pipes are always well defined

The moistening unit small tank is fed by the two pipes assembled in the lower part of the pump.

The soft pipe with an external diameter of 6 mm sucks the water from the tank and send it to the moistening unit small tank, while the soft pipe with an external diameter of 8 mm sucks the exceeding water from the small tank and sends it back to the tank.

Always check carefully that the pipes from the tank to the pump really catch water.



WARNING

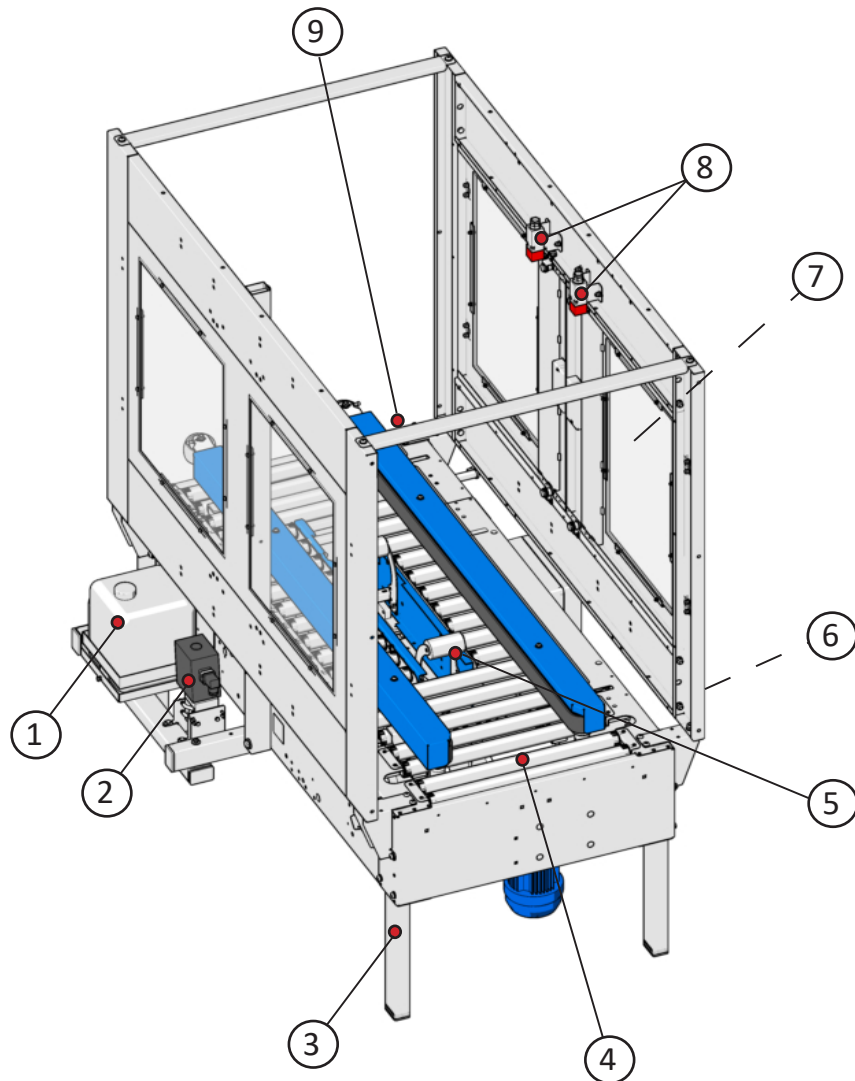
The soft pipes with a diameter of 6 mm and 8 mm must be kept under control and lubricated with some silicone spray. Since the pipes are subject to a high mechanical crushing action by the rotor rollers, they have a limited duration proportional to the pump operating time.

The machine is equipped with some perimeter guards preventing reaching any moving part. During inspection and set up the internal parts of the machine can be reached through some interlocked inspection doors.



WARNING

The only areas without guards are the box inlet and outlet. After positioning the machine in the production line the user must eliminate any risk in the box inlet and outlet area according to the features of the handling line.



Pos.	Description
1	Moistening unit water tank
2	Moistening unit peristaltic pump
3	Support legs
4	Box outlet area
5	Lower taping machine
6	Air adjusting unit
7	Taping machine inspection door
8	Microswitches with taping machine inspection door interlock
9	Carton erector connection area

2.3 Technical features

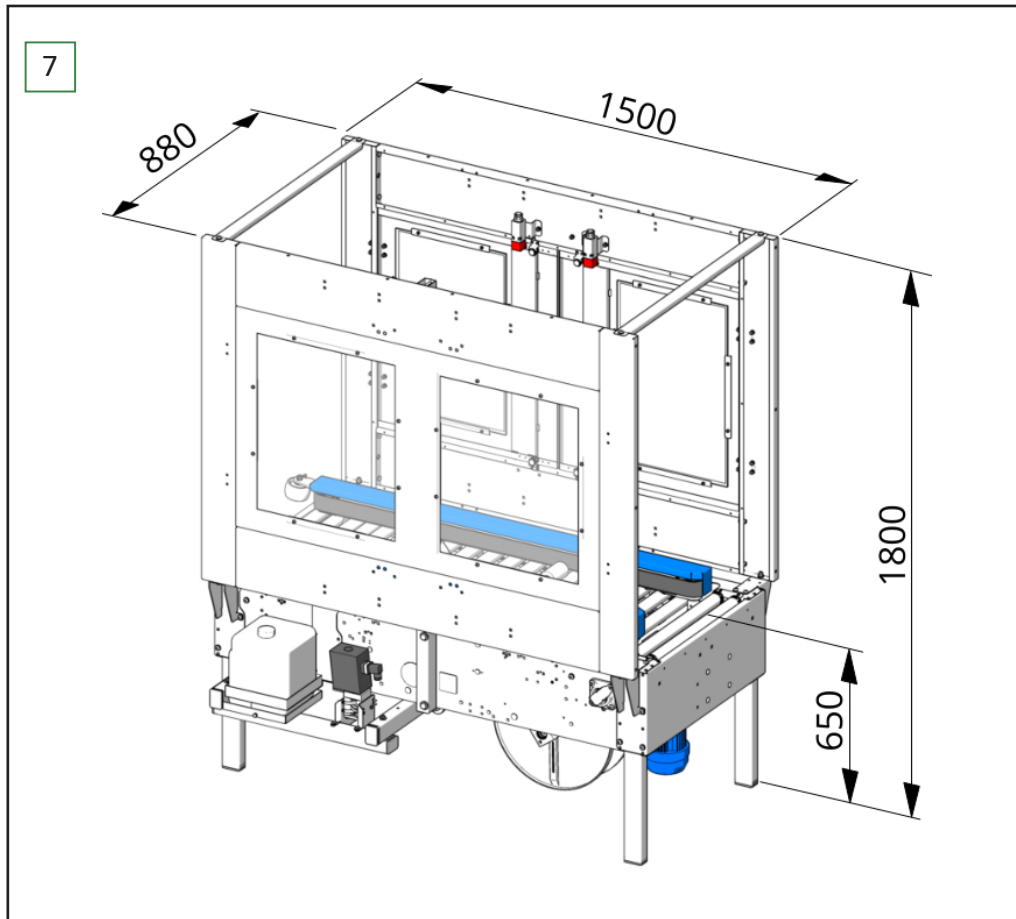
Nella seguente tabella sono indicate le principali caratteristiche tecniche della macchina.

Technical features	GEM B520-GP
Machine weight	180 kg / 397 Lb
Weight with packaging	270 kg / 595 Lb
Power installed	1 kW
Belt speed	about 18 m/1'
Max. allowable pressure	7 bars or 7×10^5 Pa
Recommended pressure	6 bars or 6×10^5 Pa
Air consumption per cycle (at 6 bars per box cycle)	~8 nl at 6 bar
Air quality	dehumidified and filtered with filtration threshold at about 50 micron
Adjusting method according to the box size	Manual

Technical features	GEM B520-GP
Motor protection	IP54
Service temperature	Min. + 5°C / 41° F Max. +35 °C / 95° F
The equivalent continuous (A) weighted sound pressure level in the workstation is equal to	78 dB (A)
Max. hourly production NOTE The production can vary according to the box length	7 boxes / min.

2.4 Dimensions

The machine measures are indicated below in mm.



2.5 Field of application

The machine has been conceived and manufactured to seal cardboard boxes using gummed paper.



WARNING

The boxes will have to reach the machine already centred and spaced.

COMARME S.r.l. machines are NOT conceived for working in areas at risk of explosion.

In any case we recommend following the legal requirements of the country where the machine is to be installed also as regards the waste disposal.

COMARME S.r.l. declines all responsibility in case of accidents due to the use of the machines by UNAUTHORIZED and unqualified staff, or who use them for purposes different from the above-mentioned ones, WITHOUT THE WRITTEN AUTHORIZATION OF THE MANUFACTURER AND THE ADAPTATION OF THE TECHNICAL FEATURES.

COMARME S.r.l. also declines all responsibility in case the machine installation is non-compliant with the legal requirements and with the instructions of this manual.

NOTE

The machine can seal boxes with the dimensions shown in the picture.



WARNING

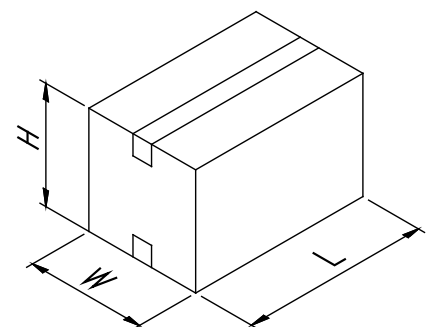
To obtain a good machine operation the box length must be proportioned with its height and weight.

In principle the ratio length divided by height must be equal or higher than 0.6.

In case of particular dimensions a check must be made with a sampling of boxes to be taped.

For very small and very light boxes use an anti-roll device that is generally kept at rest inside the upper taping head holder carriage bracket.

GEM B520-GP	Min		Max	
	mm	inch	mm	inch
W	150	5,9"	500	19,7"
L	300	11,8"	-	-
H	100	3,9"	-	-



GUMMED PAPER FEATURES

The machine is equipped with two taping heads using gummed paper with the following features:

PAPER STRIP

Made of paper with at least 90% of fresh cellulose, it can be supplied in the natural colour (light brown), white with whiten pulp, or coloured with pigmented pulp. It can be supplied with different basis weights and widths (see the table below). The raw material and the manufacturing quality allow ensuring that the technical data in the table are respected (tests carried out according to DIN 53112).

BONDING AGENT

Vegetable glue (dextrine) that with a correct moistening ensures a quick, solid and long-lasting tape setting on the clean but not prepared walls of the packaging. About 21 g/m² of glue (±2 g/m²) are deposited. On request it can be supplied with animal glue (gelatine) that has an exceptional setting and quickness.

TECHNICAL DATA

Tape type	Colour	Weight g/m ²	Breaking loads kN/m (= ~100 kg/m)	
			Longit.	Transv.
1/60M	Light brown	81	6,5	3,2
1/75M	Light brown	96	7,9	3,9
1/90M	Light brown	111	9,0	4,7
1/120M	Light brown	141	13,3	5,0
1/60E/W	White	81	4,7	2,5
1/75E/W	White	96	5,3	3,5
1/90E/W	White	111	6,8	4,5

TECHNICAL DATA

Tape type	Tot. std. width ± 1 mm				Length for machines in m	Length for moist. unit in m
	50	60	70	80		
1/60M - 1/60E/W	50	60	70	80	1000	200
1/75M - 1/75E/W	50	60	70	80	1000	200
1/90M - 1/90E/W	50	60	70	80	800	200
1/120M	50	60	70	80	700	200

Accepted dimensions of gummed paper reel:

- Ø external max. reel 400 mm
- Ø internal max. reel core ~70 mm (3")
- Min / Max paper width 50 / 80 mm

3 INSTALLATION

3.1 Check on the purchased product

Before using the machine check it has not been damaged during transport or storage. Also make sure that all options ordered and all standard components are inside the package. In case of damage, inform immediately the forwarding agent and the manufacturer.

NOTE

Some machine components are disassembled and put into it or into additional packages in order to facilitate its transport.

To assemble the components follow the instructions given in the corresponding chapter.

3.2 Conditions for installation



The machine must be installed by specialized staff following the instructions below.



WARNING

Do not place the machine near heat or water sources or other free liquids.



WARNING

Do not install the machine without the suitable protections.



WARNING

COMARME S.r.l. machines are NOT conceived for working in places at risk of explosion and/or at high risk of fire.

The machine installation in a plant requires special precautions: areas equipped with precise energy sources to feed the plant, some specialized and qualified staff to carry out this work and with the necessary equipment to position and install the machine. Use protective clothes such as overalls, gloves, safety goggles and shoes. COMARME S.r.l. specialized personnel assemble and install the machine, unless otherwise agreed.

OBLIGATIONS OF THE CUSTOMER:

COMARME S.r.l. declines all responsibility for damage to people, objects or animals due to the failure to install protection systems or to their disassembly. The manufacturer is not to be held responsible if the plant user does not follow the instructions below.

- Position along the machine edges near sharp or protruding corners or parts some yellow and black strips indicating that those points are dangerous.
 - Put around the machine some panels indicating the warnings and the rules to follow during the machine use as required by law.
 - Put around the machine all the emergency panels required by law as well as the arrows indicating the paths to follow to reach the emergency exits.
 - Put around the machine the equipment to use in case of emergency (fire extinguishers and fire-fighting systems).
 - Train the staff in charge of using the machine so that they know how to use it normally and what to do in case of emergency or danger and keep the documentation proving that this instruction has been carried out.
 - Authorized personnel only in the area where the machine is installed through the application of prohibition signs or using some security staff.
- ☞ Observe the free spaces required and indicated in this manual.
- ☞ The electrical systems must be as much as possible protected from dust, noxious vapours and humidity.
- ☞ The room temperature of the place where the machine is installed must be kept between 5 and 35 °C (41°F and 95 °F).

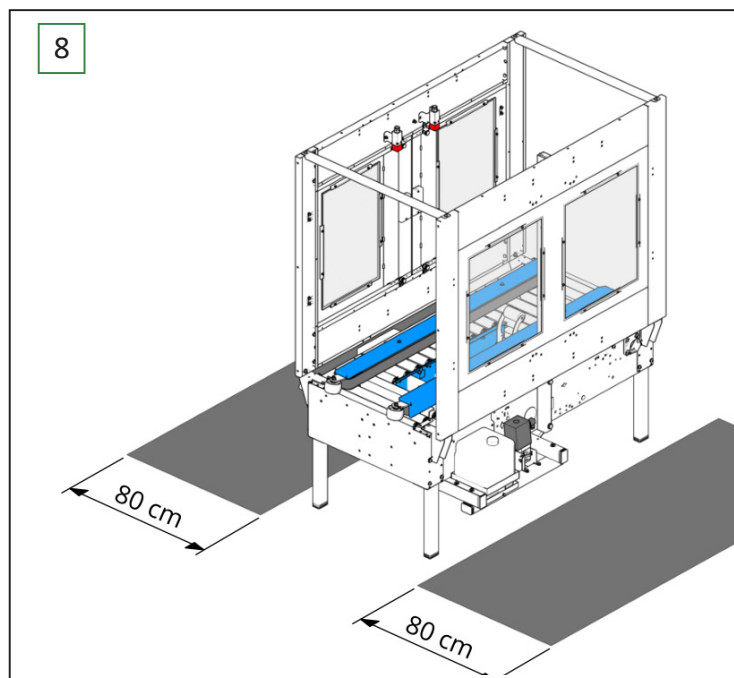
3.3 Free spaces

To work freely on the machine and carry out the tooling or maintenance operations, a sufficient space of at least 80 cm must be left for the operator along the sides, as shown in picture 8.



WARNING

We recommend leaving a suitable space to handle the boxes to be taped. Also arrange some free areas to put any empty containers.



3.4 Positioning on the ground

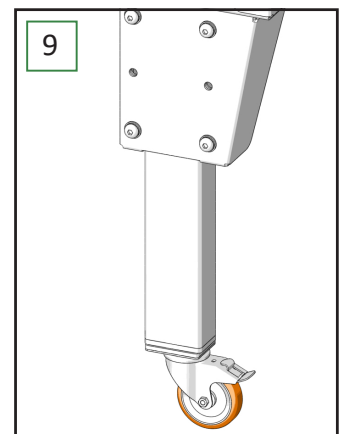
Before positioning the machine on the ground or on a base it is necessary to check the perfect floor levelling using a level.

The version with swivelling wheels (optional) can be positioned in the desired place and locked using the suitable brakes (see picture 9). We recommend checking the suitability to carry loads near the supports.



WARNING

WARRANTY AND RESPONSIBILITY DECAY IN CASE the machine is not installed according to the indications provided for by the manufacturer.



3.5 Component assembly

WORKING SURFACE HEIGHT ADJUSTMENT

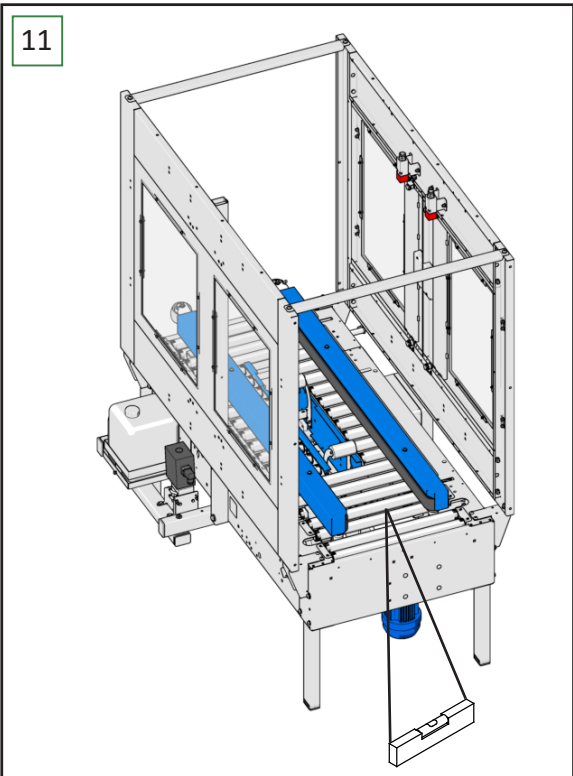
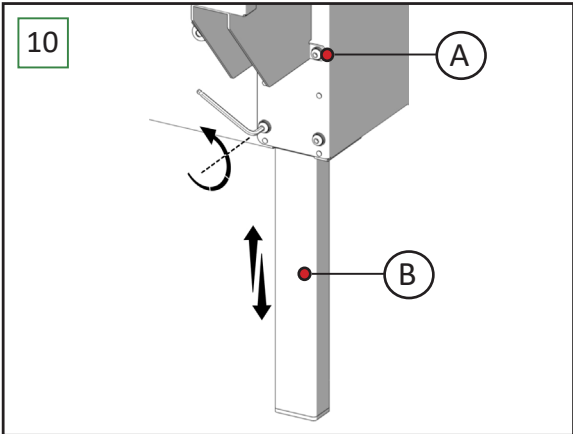
The roller table of the machine is 650 mm from the ground. This height can be increased up to 750 mm.

 **WARNING**

To do this, insert the forks under the frame of the machine as shown in par. 1.5, lift the machine and adjust the two legs at each end as follows (see picture 10):

- loosen the 4 socket head screws "A" on each of the legs.
- pull out legs "B" to the required length (max. 100 mm) and tighten screws "A" .

Make sure that at the end of these operations the machine is on a level in both directions, lengthwise and crosswise (see picture 11).

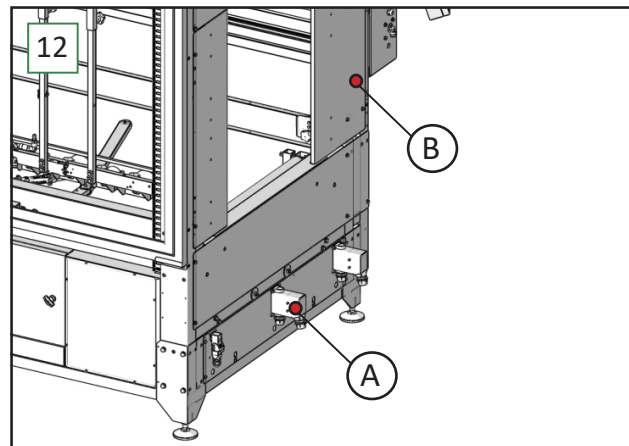


CARTON ERECTOR CONNECTION

- Insert the taping machine connector in the relative central connection "A" of the carton erector "B" (see figure 12);
- place the taping machine in contact with the front side of the carton erector, so that the screw holes are aligned with the holes of the fixing brackets;
- insert the screws and tighten;

NOTE

With the electrical connection described above, the drive belts of the taping machine will be set in motion when the vacuum circuit of the carton erector is activated. The two machines together will function as if they were one unit.



3.6 Electrical connection



WARNING

The machine electrical connection must be carried out only by qualified electricians, in compliance with the safety standards in force.



WARNING

Before carrying out any operation on the electrical equipment make sure that all the conductors, connecting parts and terminals are not energised.



WARNING

Install before the electric panel a thermal-magnetic circuit breaker and check that the earthing circuit is efficient.





WARNING

First of all make sure the lines can feed the whole plant correctly, in compliance with the safety standards in force (for the required features see paragraph 2.3).

Before connecting the machine to the mains, make sure the main switch is in "0" position.

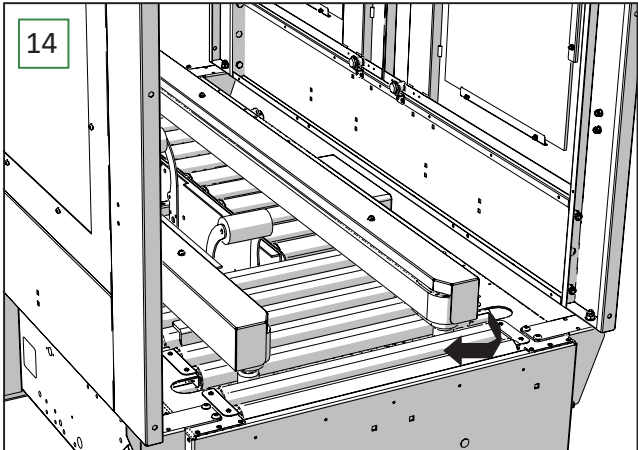
- The machine can be supplied with three phase motors, with different voltages and frequencies (see wiring diagram).
- Make sure the motor complies with the required voltage specification (the motor voltage is indicated on the identification plate - see the arrow aside).

○ Tipo Type		NASTRATRICE		○
Modello Model		GEM B520-GP		
Matricola Serial number		*	Anno di costruzione Year of construction	*
Alimentazione Power supply	~ 1/PE	Tensione Voltage	220 VAC	Frequenza Frequency
Corrente nominale Full load current	4,3 A	Potenza installata Installed power	1,00 kW	
Corrente di corto circuito Short circuit rating	<10 kA RMS sym.			
Pressione aria Air pressure	5,0 bar	Consumo aria ciclo Air consumption cy.	4,0 NI	
Peso Weight	180 kg			
				
COMARME S.r.l. Via Torriane, 58 47824 Poggio Torriana (RN) - ITALY				
○ MADE IN ITALY ○				

- Insert the machine electrical plug (see picture 13) into the mains outlet.



- Check for the correct rotational direction of the belts, as shown by the arrow in picture 14. If the rotational direction is wrong, reverse the two phase wire connectors on the plug.



3.7 Pneumatic connection



The pneumatic system is equipped with two adjusting units. The first one, relating to the back pressure of the cylinder head, the second one for the management of the solenoid valves. The air connector is standard (inside \varnothing : 10 mm; outside \varnothing : 12 mm).

The compressed air supply pressure must be of least 6 bar.

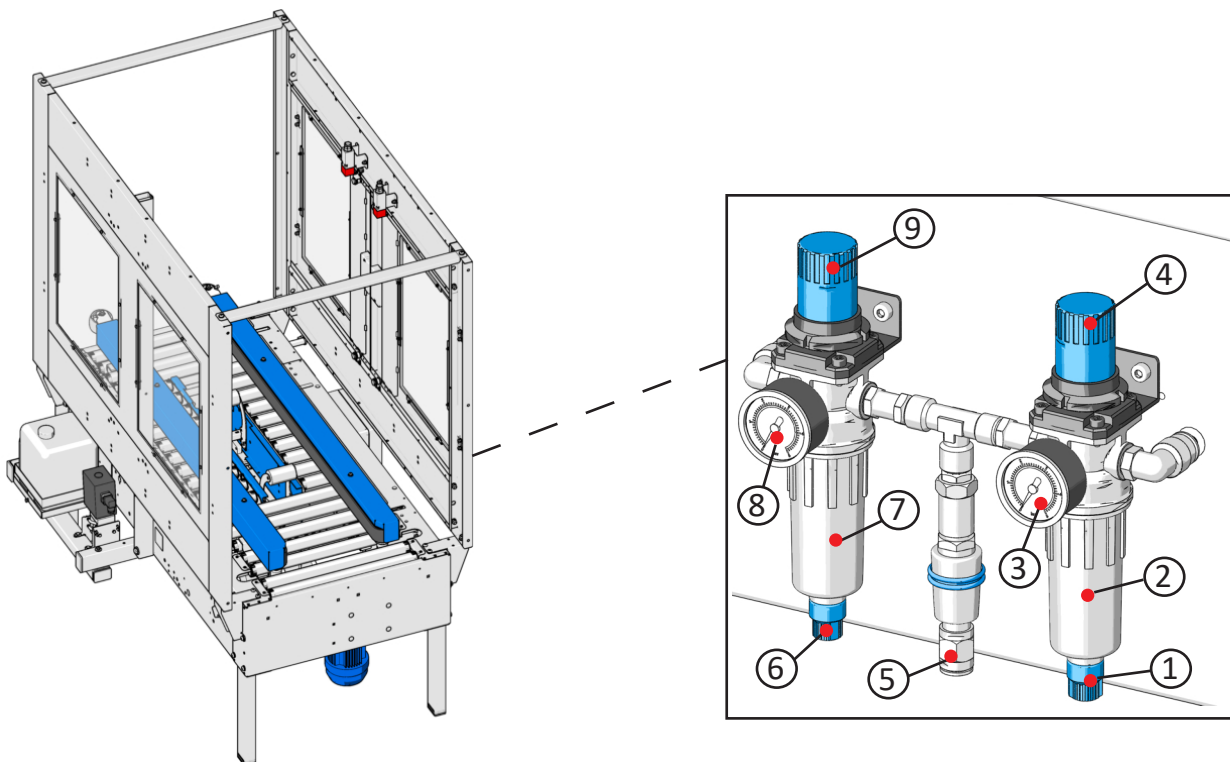
RF UNIT DESCRIPTION

The pneumatic unit is made up of (see picture below):

- 1 - Condensate drain
- 2 - Condensate collection tray
- 3 - Manometer
- 4 - Air pressure regulator to solenoid valve main system
- 5 - Air connection to the network
- 6 - Condensate drain
- 7 - Condensate collection tray
- 8 - Manometer
- 9 - Head cylinder back pressure regulator

PNEUMATIC SYSTEM PRESSURE ADJUSTMENT

Check the air pressure using the "3" and "8" pressure gauges. Adjust the pressure between 5 and 6 bar based on the rigidity of the boxes to be taped. For corrections, use the air delivery knobs "4" and "9" on the RF unit, turning clockwise to increase or anti-clockwise to decrease.



4 NORMAL USE

4.1 Introduction

This section shows all the safety precautions to be followed for the proper use of the machine, as well as the operations to carry out during the first start up and during the normal use.

Please read this section very carefully.

4.2 Safety rules during use

WHILE USING the machine the following precautions and safety criteria **MUST BE STRICTLY FOLLOWED**.

The manufacturer declines all responsibility in case the user does not follow the safety precautions in compliance with the standards in force. Besides, the manufacturer is not to be held responsible in case of carelessness during the machine use.

DO NOT

- ✘ Remove the fixed guards.
- ✘ Disconnect or damage in any way the safety devices.
- ✘ Change or add any device to the electrical system without a prior written authorization or the technical intervention of the manufacturer confirming the change introduced in the description of the intervention.
- ✘ Use the machine for purposes that are different from the ones described in this use and maintenance manual.

- ✘ Allow unauthorized personnel to operate on the machine.
- ✘ Clean the machine while it is running.

WARNINGS

- ☞ The person in charge of the facility and the operators who use the machine must follow all the standards and the legal provisions on accident prevention and safety at work. They must know the risks that can be found in the workplace and the emergency/safety plans arranged.
- ☞ Make sure some efficient and approved portable fire extinguishers are available and easily accessible.
- ☞ Also make sure the working area is illuminated to ensure a sufficient visibility and in any case in compliance with the safety standards so as to prevent any possibility of injury.
- ☞ The safety systems must be only used as “safety stop” devices and not as machine stop control device.



WARNING

- ☞ Before starting the machine, all its protections must be closed.

4.3 Operator position

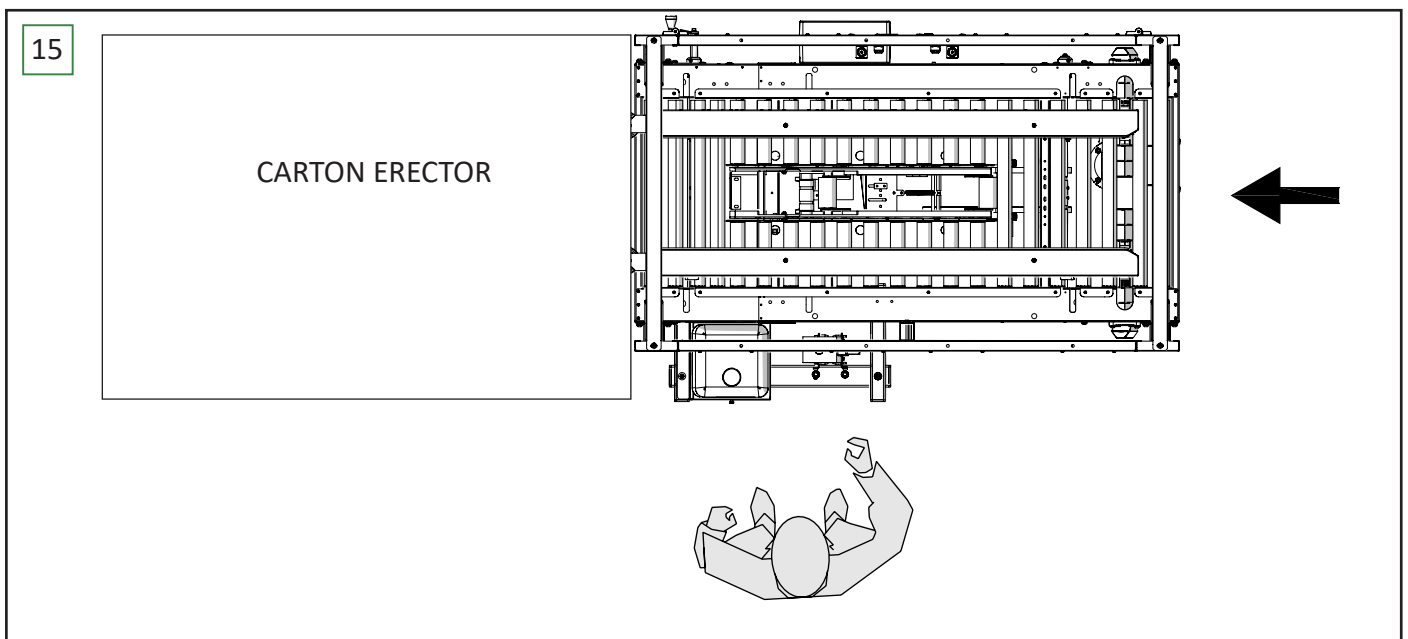
The taping machine has an automatic operation, therefore the operator has the task of supervising the good operation of the system and when necessary replacing the belt.

Picture 15 shows the area where the operator must be while using the machine.



WARNING

One operator can work on the machine.



4.4 Controls

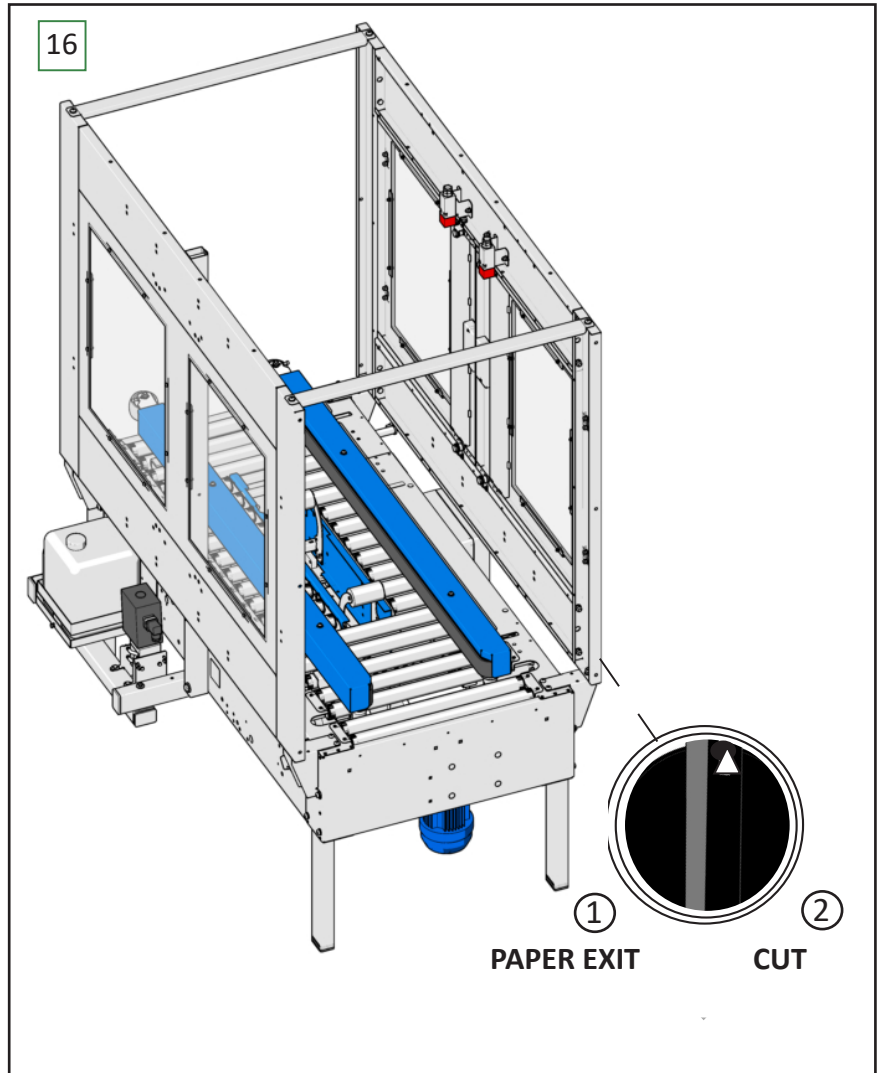
The taping machine can be started through the box presence photocells located in the loading area.

GUMMED PAPER EXIT/CUT SELECTOR SWITCH (OPTIONAL)

A black selector switch is located near the box outlet area. It has 3 different positions with zero in central position (at rest).

When the machine is at rest, this selector switch allows the taping unit to check the gummed paper dispensing-cutting system (see picture 16).

When the selector switch is on the left, the paper comes out, while if it is on the right the cut is started (see table below).



Pos.	Description	Function
1	PAPER EXIT	In position 1, the selector switch allows a short piece of paper to come out the taping units. This operations occurs only once, till the cut is enabled.
2	CUT	In position 2, the selector switch enables the cutting cylinders to cut the gummed paper. Only after this operation the dispensing can be repeated.

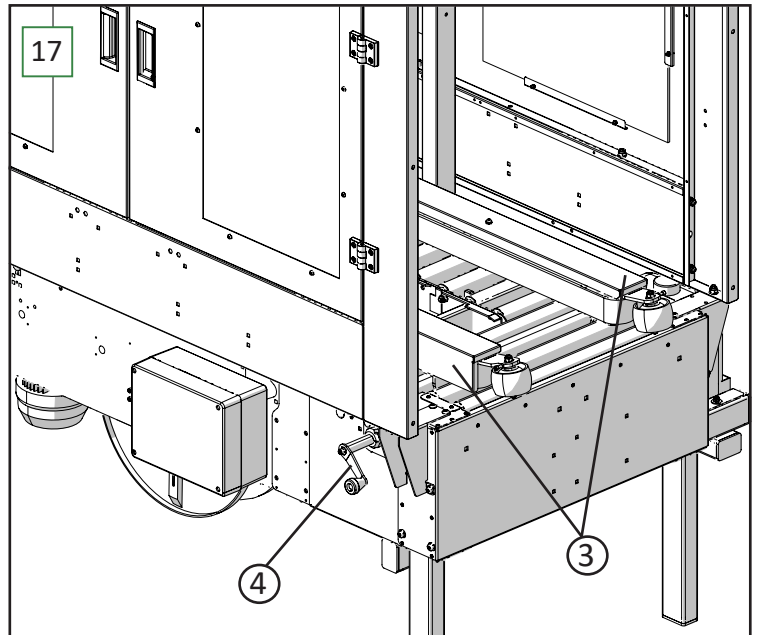
4.5 Drive belt opening adjustment

After positioning the box to tape, approach the driving belts (pos.3 pict.17) by acting on the knob (pos.4 pict.17) until the driving belts come into contact (with a slight pressure) with the side walls of the box to tape.



WARNING

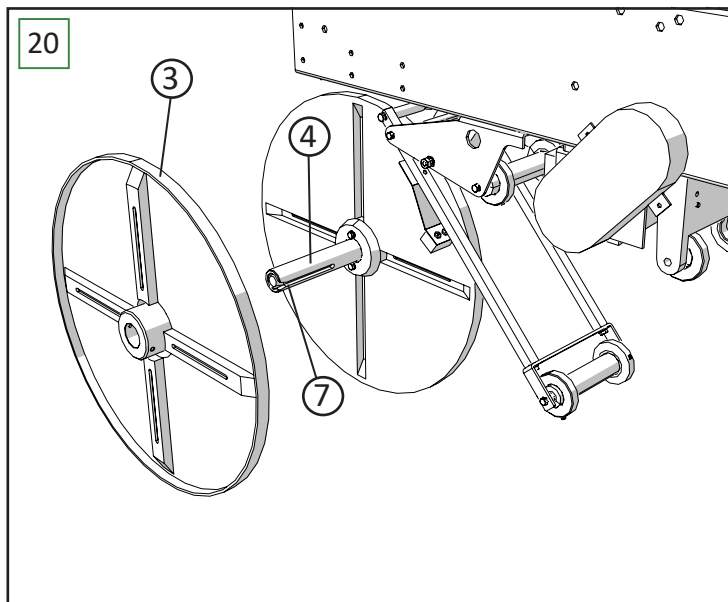
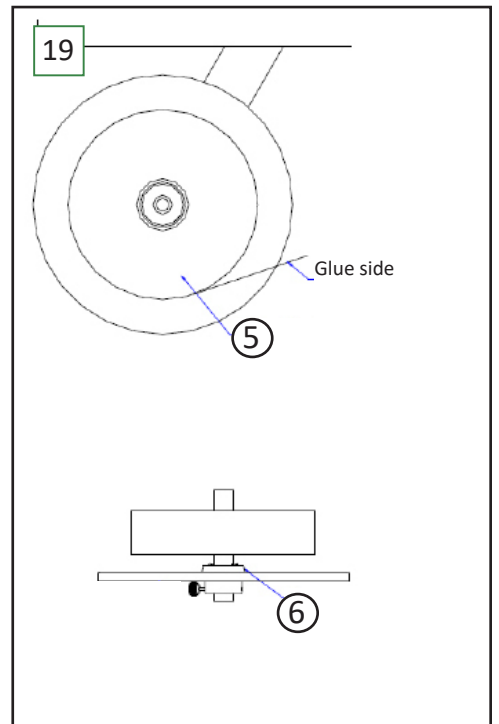
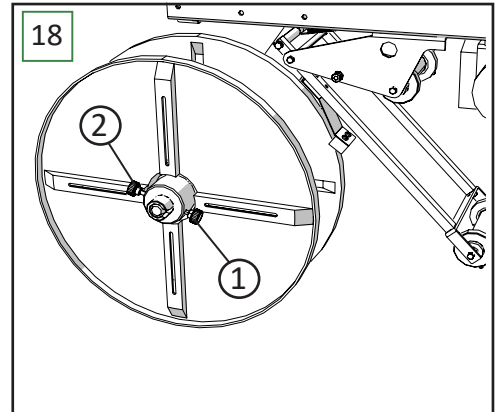
An excessive closing force of the driving belts locks the machine and damages it, especially when the box is thick.



4.6 Reel positioning

TAPING HEAD

1. Loosen the knob (pos.1 pict.18) locking the reel carrier to the shaft.
2. Remove the reel carrier.
3. Loosen the knob (pos.2 pict.18) locking the front flange to the reel carrier hollow shaft (pos.3 pict.20).
4. Remove the front flange (pos.4 pict.20).
5. Position the reel (pos.5 pict.19) using the flange cone (pos.6 pict.19) to centre it and holding the flap as shown in the picture.
6. Insert the front flange (pos.4 pict.20) keeping the knob thread centred in the reel carrier hollow shaft groove (pos.7 pict.20).
7. Lock the flange to the reel carrier hollow shaft by means of the knob leaving a space of 2-5 mm between the flange and the reel to allow unrolling the paper.
8. Reposition the reel carrier on the shaft.
9. Lock the reel carrier by means of the knob (pos.1 pict.18).

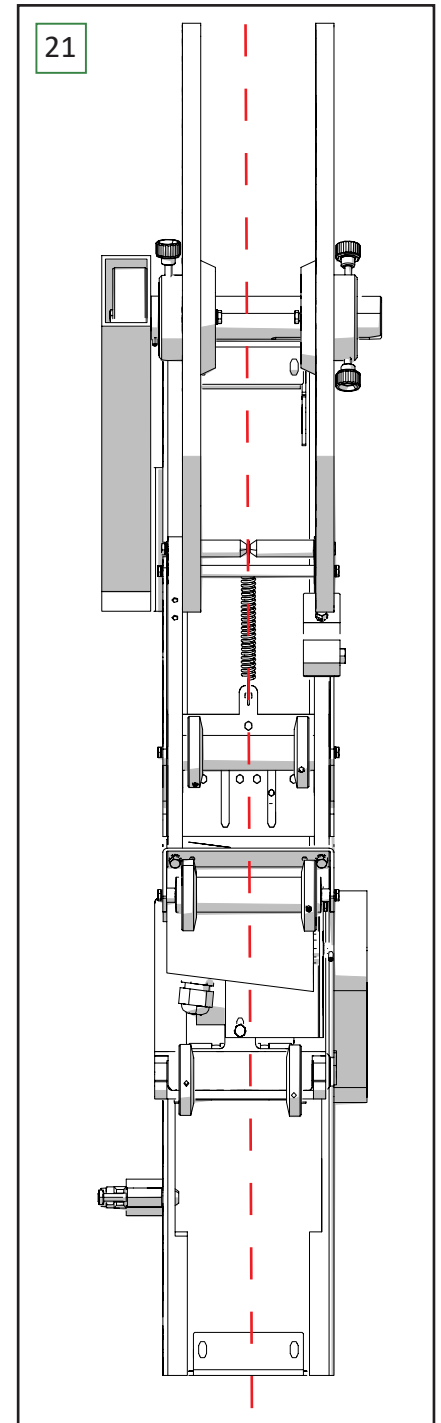
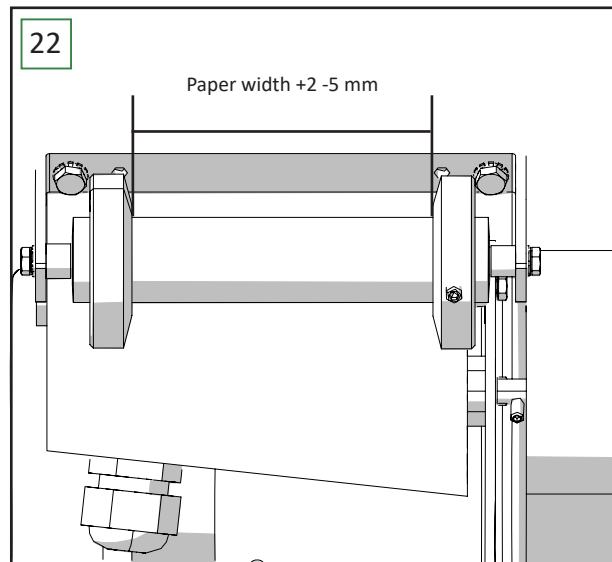


4.7 Gummed paper centring

The gummed paper must be centred all along its unrolling path to avoid any misaligned box taping. To do so, position the flange supporting the tape so that the reel is centred with the taping head.

1. Loosen the fastening knob in the rear part of the support itself.
2. Position the reel support so that the reel centre line is aligned with the centre line of the taping head.
3. Tighten the fastening knob.

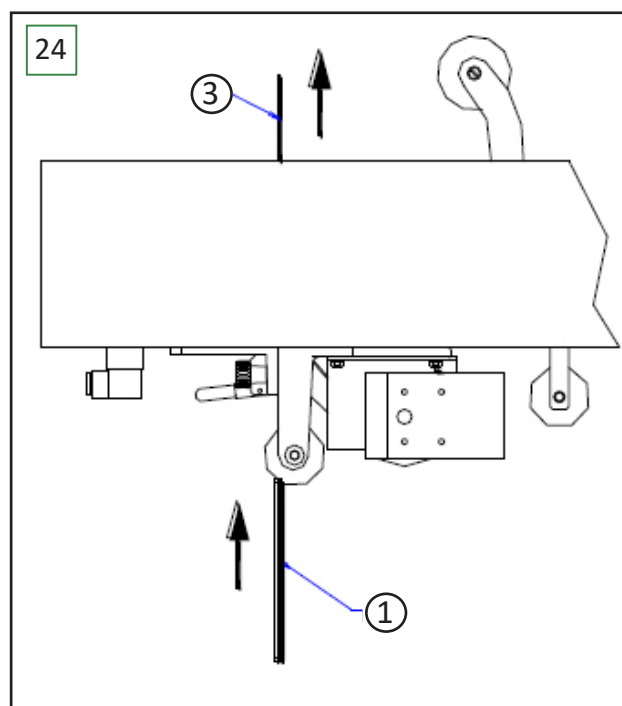
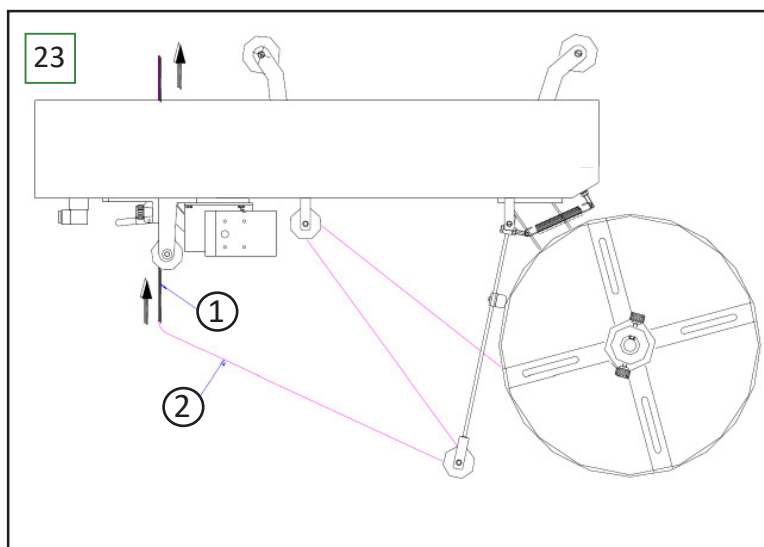
NOTE: the flange must no longer be moved unless the width of the tape used is changed.



4.8 Gummed paper arrangement

TAPING HEAD

- Unroll the paper following the unrolling direction, according to the label on the upper taping head, up to the moistening unit inlet.
- Moisten the “paper inserting flap” (pos.1 pict.23), supplied with the taping machine, inserting it into and extracting it from the moistening unit.
- Fix the wet side (pos.3 pict.24) of the “paper inserting flap” to the gummed paper glue side (pos. 2 pict.23).
- Insert and extract completely the “paper inserting flap” into and from the moistening unit.
- Remove the “paper inserting flap” from the gummed paper.
- Put the selector on “CUT” and then remove the cut flap of paper.
- Put the selector on “DISPENSING”, then on “CUT” to check the correct operation of the cutting system.
- Remove the cut flap of paper.
- Check, against the light, that on the glue side of the paper there is a uniform and thin film of water.



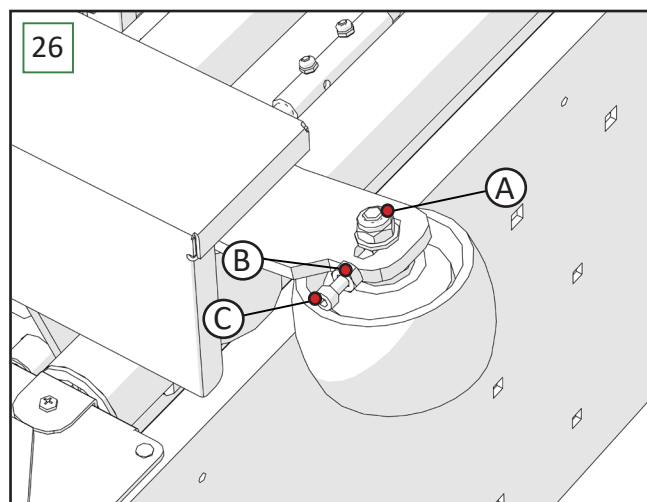
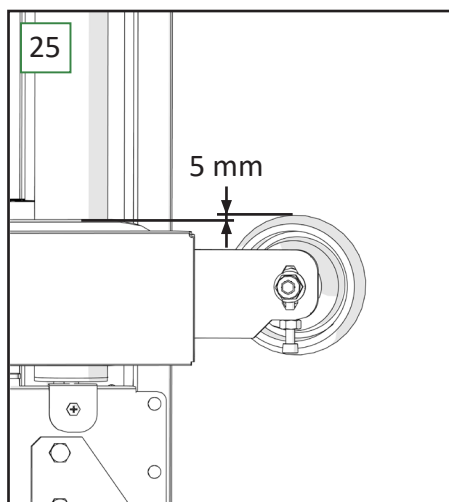
4.9 Adjustments and first start up

FRONT ROLLER ADJUSTMENT

Whenever the lower flaps of the box to be taped are not resting perfectly on the roller table, adjust the front rollers so that the external profile of the roller protrudes from the surface of the driving belts by 5mm (see picture 25), thereby obtaining downward pressure on the box and consequently causing it to rest correctly on the roller table.

To adjust the rollers:

- loosen the nuts "A" and "B" (see picture 26);
- shift the rollers by tightening the screw "C" (see picture 26) as required;
- tighten the nuts "A" and "B" (see picture 26).



FIRST START UP

Check that the taping machine is correctly set by feeding it either manually or automatically, which will complete the working cycle by sealing the box at the bottom.

If the taping machine is connected with a carton erector, check the correct setting of the latter.



WARNING

The boxes must be correctly centred, with suitable distances between them when they are loaded onto the machine.

4.10 Working cycle

- Start the machine following the procedure described in the previous paragraph.
- Insert the box into the machine manually or automatically.

The presence of the box in the inlet area determines the activation of the drive belts.

When the box reaches the inlet photocell, the lower taping machine is activated and, through the paper exit, the box is sealed.

At the end of the taping operation, the drive belts carry the box towards the outlet area.



WARNING

During the passage of the first box, check the correct positioning of the drive belts.

4.11 Residual risks

- ☹ After positioning the machine in a production line, the user must suitably eliminate any risk that can be found in the box inlet and outlet area, according to the handling line functions.
- ☹ At the end of the work, even after stopping the machine, some components such as the motors can keep high temperatures.

Therefore, at the end of the operations, make sure that nobody touches these parts until the heat is dissipated below a temperature of about 40-50°C.

4.12 Wrong and dangerous uses

Using the machine for operations that are different from the ones indicated by the manufacturer can damage the equipment and be dangerous for the operator. The manufacturer's written consent must be previously obtained to work special materials different from the one indicated in this manual.



WARNING

The voluntary action by which the operator does not follow the working rules indicated in this manual is an improper use.

4.13 Clothes



WARNING

During the machine working, inspection or maintenance phases **IT IS STRICTLY FORBIDDEN** to wear necklaces, bracelets or clothing such as scarves or wide sleeve shirts which may get entangled in the machine.

4.14 Emergency situations



FIRE:

The working area of the machine must be provided with fire extinguishers and emergency exits as required BY LAW (Local law on safety at work); **DO NOT USE WATER.**

Staff members should be trained to deal with such accidents. The machine can NOT work in areas at high risk of fire.



WARNING

IN CASE OF FIRE TURN OFF IMMEDIATELY
THE POWER SUPPLY

5 MAINTENANCE



5.1 Maintenance

A suitable maintenance is very important for a longer duration of the machine and it ensures safety from a functional point of view.

We recommend making qualified and authorised staff carry out maintenance operations. The design and materials used reduce maintenance interventions to a minimum.

The staff must be provided with the individual protection means that are usually used for similar operations, and they must follow the safety standards described in the following chapter.

5.2 Safety standards during maintenance

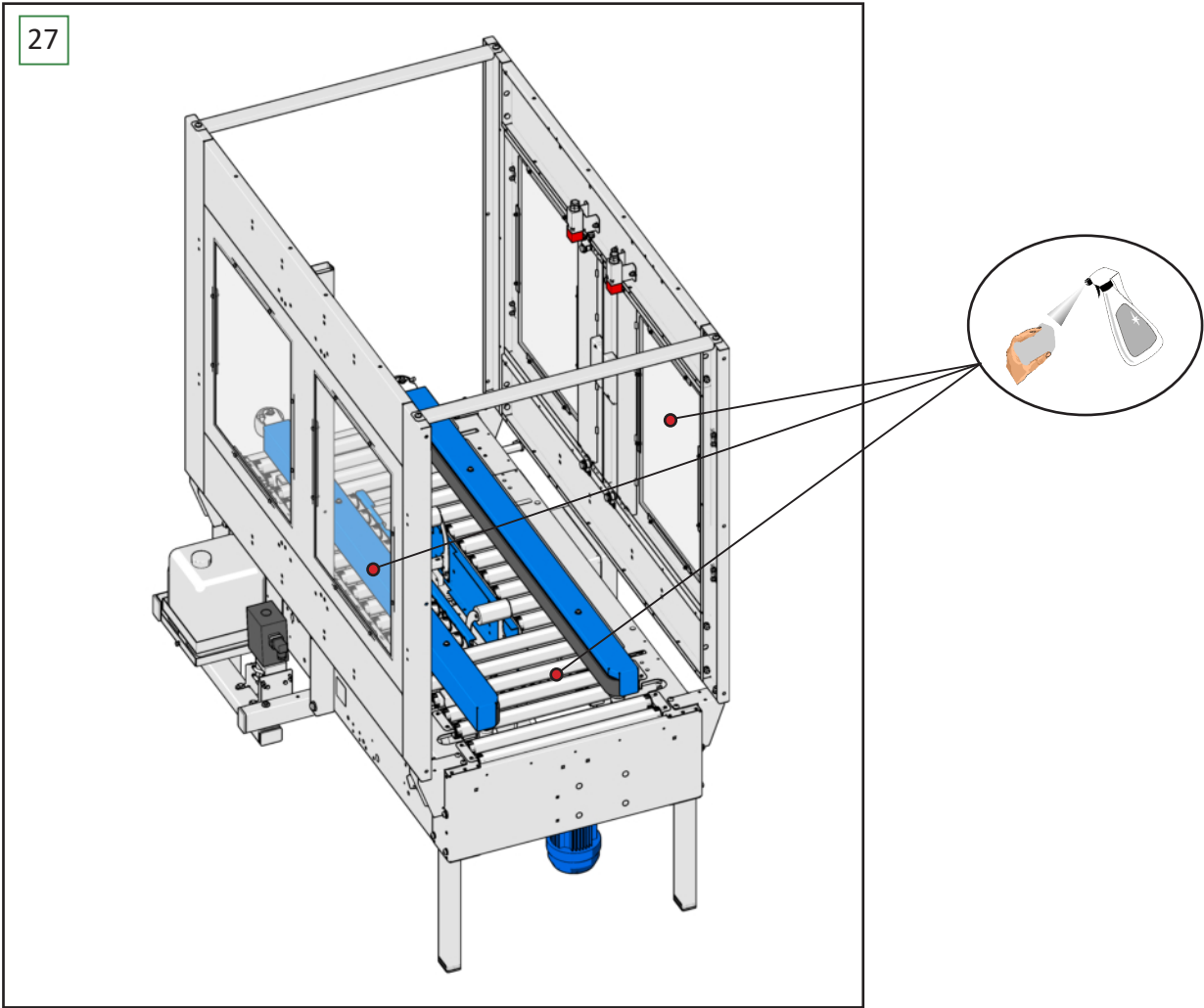
The main precautions to adopt in case of maintenance operations on the machine are:

- ☞ No work can be started without the written authorization of the person in charge of maintenance.
- ☞ We recommend establishing some safety rules for each type of maintenance operations that must be followed by every maintenance man.
- ☞ Before operating on the machine, make sure it is in safety conditions.
- ☞ At the end of a maintenance operation, fill in the maintenance form, remove all the tools used and eliminate any grease or oil accumulation.
- ☞ For plants or mechanical parts that can require a total or partial disassembly, adopt the following precautions:
 - close the machine main switch
 - avoid putting your hands between the rotating parts
- ☞ Before carrying out any operation disconnect the machine from the power supply, to avoid any accidental enabling that could endanger both the operators and/or the tools used.
- ☞ Apply the following message on the machine: "WARNING. MAINTENANCE IN PROGRESS".
- ☞ Do not wear rings, watches, chains, bracelets, etc. during maintenance operations.
- ☞ Always wear individual protective devices (gloves, goggles, safety shoes, etc.).
- ☞ Do not use naked flames, pointed instruments or pins for cleaning operations.
- ☞ Do not smoke.

5.3 Ordinary cleaning

The ordinary cleaning of the machine must be carried out every day in compliance with the specific quality procedure and with the machine disabled. This allows keeping the machine in good working conditions.

Some tape or cardboard residues can be left near the machine or near the inlet and outlet roller conveyors. During the machine cleaning remove them.

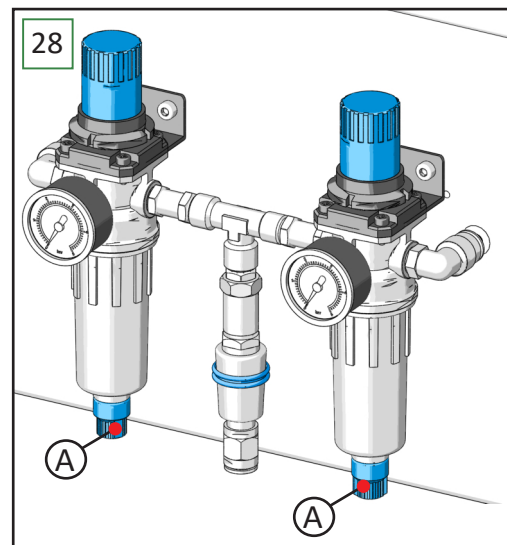


5.4 General rules for maintenance

No special preventive maintenance operations are required. In any case, we recommend checking periodically that the screws are perfectly tightened in order to achieve the best result at all times.

5.5 Condensate drain

Drain any condensate in the accumulation filter located under the main pressure regulator (see position "A" in picture 28).

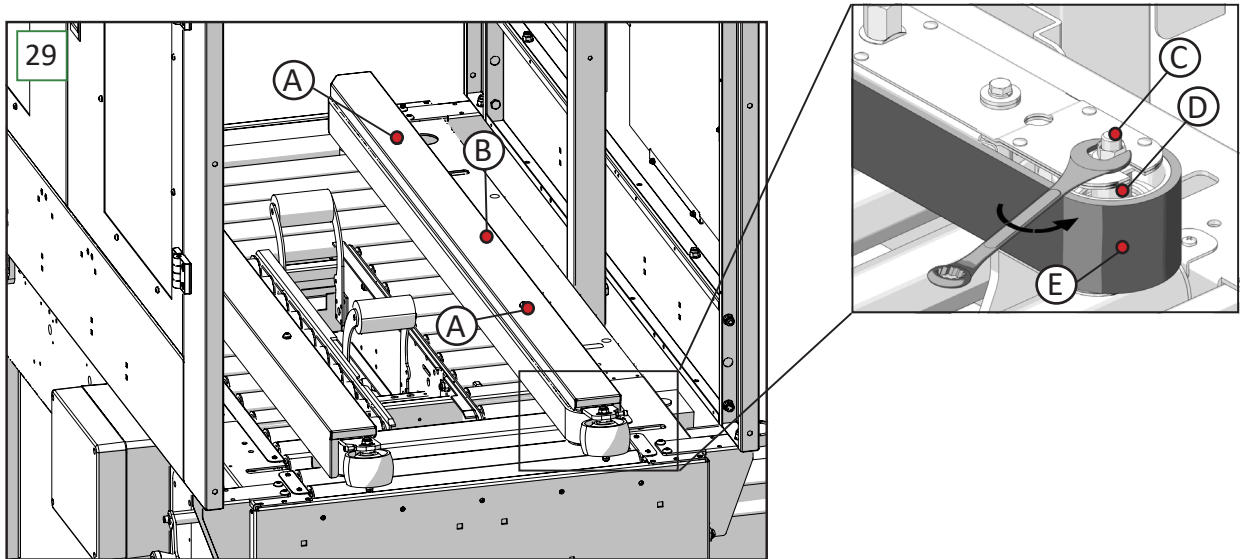


5.6 Driving belt replacement

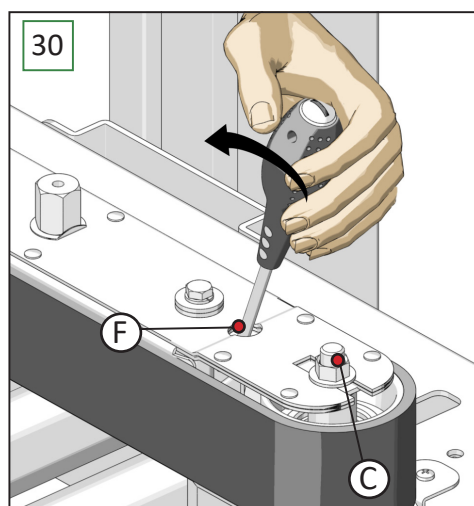
With time, the belts driving the movement of the boxes will become worn (according to the number of working hours).

To replace them, do as follows (see picture 29):

- loosen screws "A" and remove belt safety guards "B",
- loosen nut "C" fixing the front pulley "D" so that the pulley can be moved inwards,
- replace belt "E",



- insert a screwdriver into the suitable housing "F" by levering it so as to tighten the belt (see picture 30),
- tighten nut "C".

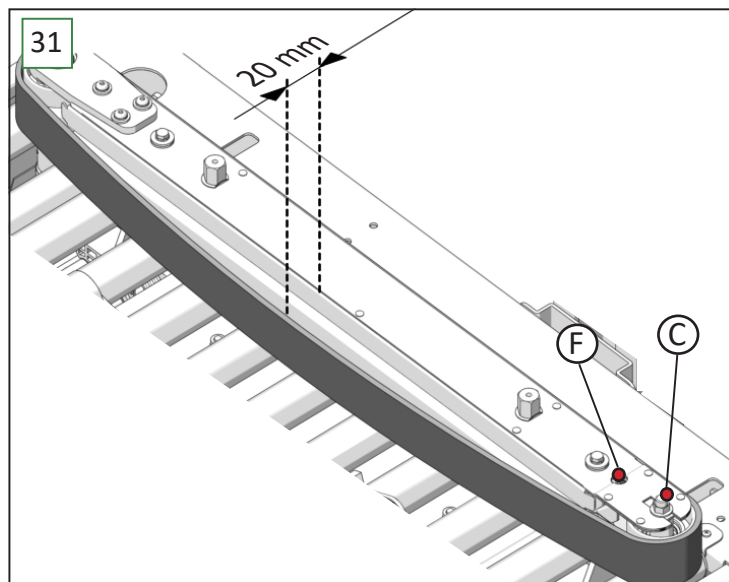


- check the correct tension of the belt by pulling it out slightly about half way along the arm (see picture 31). The belt should come away from its guide by about 20 mm. If this is not the case, adjust the tension by loosening nut "C", insert the screwdriver into the suitable housing "F" shifting it forwards to tighten the belt and backwards to loosen it, as required. Then tighten nut "C",
- put the safety guard "B" back on and lock it with screws "A" (see the previous page).



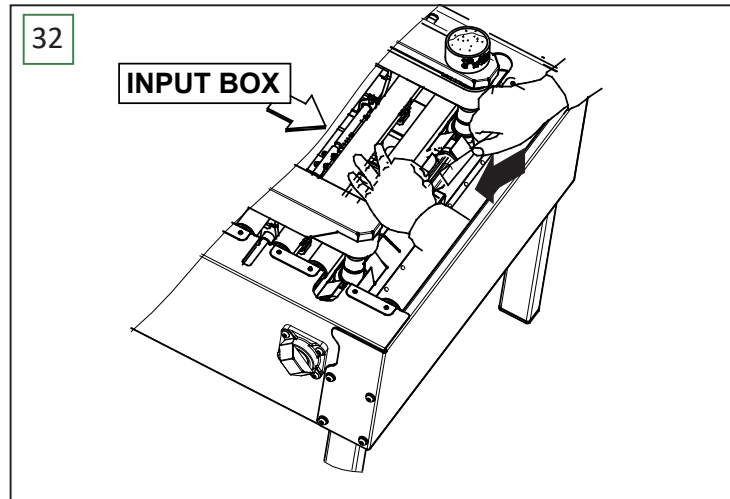
WARNING

This operation should be performed by specialized mechanical maintenance technicians. In any case, it is advisable to replace the belts at least once a year.



5.7 Lubrication

We recommend greasing periodically the drive shaft. When the machine is at a standstill use a spatula to spread the grease through the slits protected by plastic "flaps" (see the arrow in picture 32).

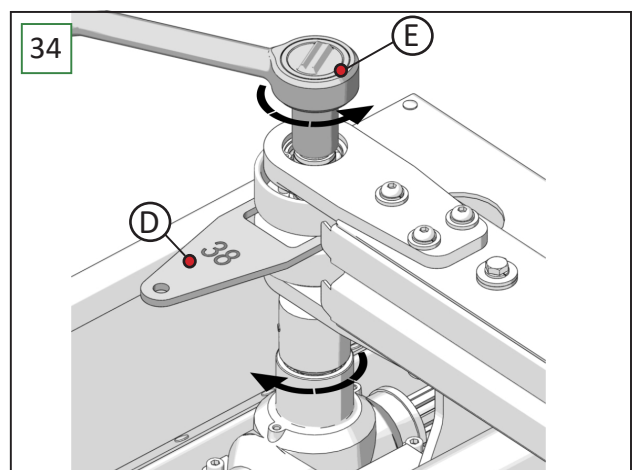
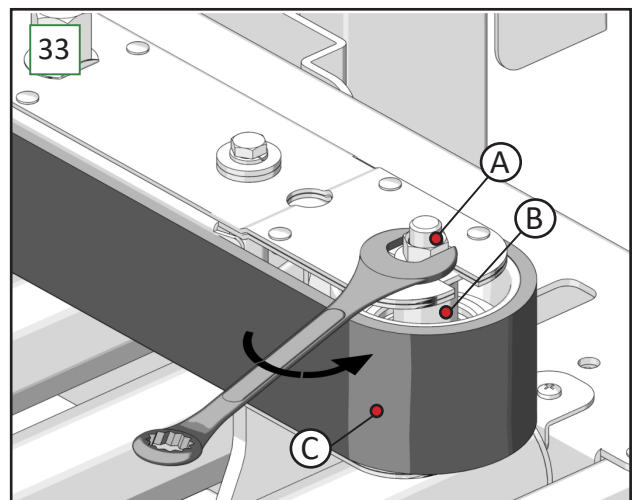


5.8 Check of the drive shaft locking screw tightening

It is advisable to regularly check that the locking screw "A" on the drive shaft is tightened properly.

To carry out this operation do as follows (see picture 33):

- loosen nut "A" fixing the front pulley "B" so that the pulley can be moved inwards,
- remove belt "C",
- insert the 38 mm wrench "D" supplied with the machine, so that the pulley is held in position while the screw is tightened (see picture 34),
- fasten the locking screw as tightly as possible using a 13 mm hexagon socket head cap screw "E",
- reassemble the belt by checking its correct tension as indicated in par. 5.9.



5.9 Check of the drive chain tension and replacement

CHECK OF THE DRIVE CHAIN TENSION

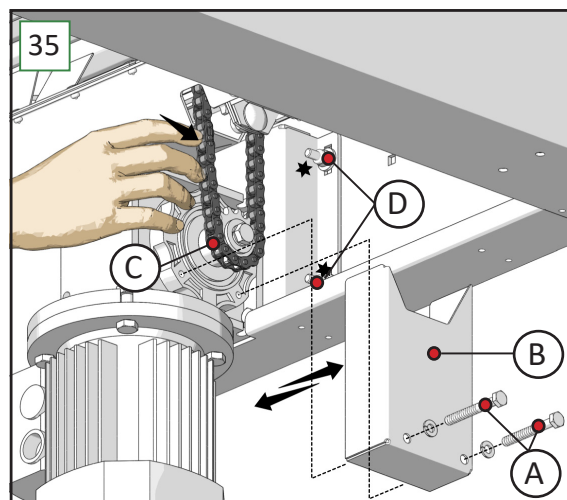
To check the drive chain tension, do as follows (see picture 35):

- loosen screws "A" and remove the chain guard "B",
- check the correct tension of chain "C" by pushing it gently with the fingers,
- if necessary, adjust the tension of the chain by loosening locking nuts "D", in order to allow the necessary movement, then retighten them in the right position,
- reassemble guard "B".

DRIVE BELT REPLACEMENT

To replace the drive belt do as follows:

- loosen screws "A" and remove the chain guard "B",
- loosen locking nuts "D" and replace chain "C",
- re-adjust the chain tension by tightening locking nuts "D",
- reassemble guard "B".



5.10 Taping head ordinary maintenance table

GEM B520-GP				
CHECK WITH POSSIBLE ADJUSTMENT/REPLACEMENT OF:	Weekly	Fortnightly	Monthly	MATERIAL
Lubrication of the peristaltic electric pump pipes	X			Silicone spray
Lubrication of idle return/paper passage rollers	X			Silicone spray
Paper passage check/cleaning in the taping head	X			Water and compressed air
Sponge and net washing	X			
Sponge and net check/replacement			X	
Replacement of the peristaltic electric pump pipes			X	
Check/replacement of blade push pins			X	
Cutting blade check/replacement			X	
Counterblade check/replacement			X	
Paper guide plate check/replacement		X		
Reel carrier brake functionality check	X			
Check of the tape return roller alignment	X			
Check of the lower paper non-return ball functionality	X			

5.11 Maintenance operations for taping heads

LUBRICATION OF THE PERISTALTIC ELECTRIC PUMP PIPES

In order to ensure a longer duration of the two silicone pipes assembled on the peristaltic pump, spray some silicone spray on them in the points where they are pressed by the Derlin rings of the rotating body.

LUBRICATION OF THE IDLE RETURN/PAPER PASSAGE ROLLERS

In order to ensure an optimum paper sliding along its path, after a suitable cleaning apply some silicone spray on the return and paper passage roller ends, between the rollers themselves and the rotation pin.

PAPER PASSAGE CHECK AND CLEANING IN THE TAPING UNIT

In order to keep efficient the taping heads, keep the paper passage free from any residues and impurities; after a suitable cleaning check the correct paper passage through the taping head using the paper inserting flap. If it is not free, disassemble and clean the different components where the paper slides.

SPONGE AND NET WASHING

The following operations must be carried out in order to extend the sponge duration and especially to keep efficient the moistening unit:

- release the stop and overturn the small tank
- remove the counter sponge unit by turning the locking knob anticlockwise
- remove the cap
- tighten a knob or a screw (M6) on the suitable threaded insert in the centre of the sleeve to extract it
- extract the sleeve
- remove the three sponges and rinse them thoroughly with water
- rinse thoroughly the net under running water without disassembling it from the sleeve

- rearrange uniformly the sponges inside the sleeve, by paying attention to leave no spaces between them so that they adhere evenly over the whole net surface
- reinsert the sleeve into the small tank
- apply the closing cap
- reassemble the counter sponge unit
- reposition the small tank in the taping head.

NOTE: Before repositioning the lower small tank in the taping head, clean the latter with some compressed air to remove any water leaks during overturning. Pay special attention to the dispensing unit.

SPONGE AND NET CHECK/REPLACEMENT

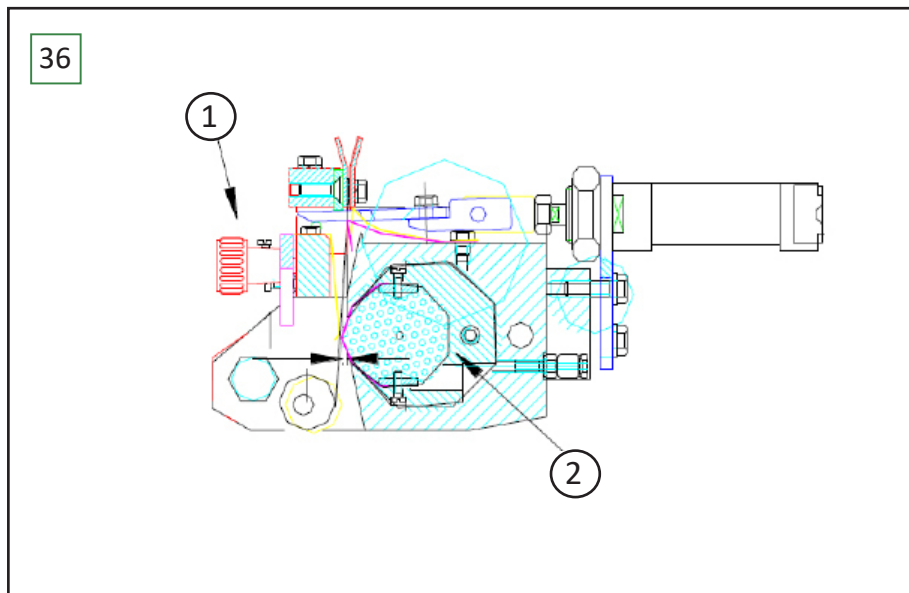
Sleeve disassembly:

- release the stop and overturn the small tank
- remove the counter sponge unit (pos.1 pict.36) by turning the locking knob clockwise
- remove the cap
- tighten a knob or a screw (M6) in the suitable threaded insert in the centre of the sleeve to extract it
- extract the sleeve (pos.2 pict.36)

Check the sponge and net condition:

- if the net is torn or broken, replace it
- if the sponges are worn with a slight patina, replace them.

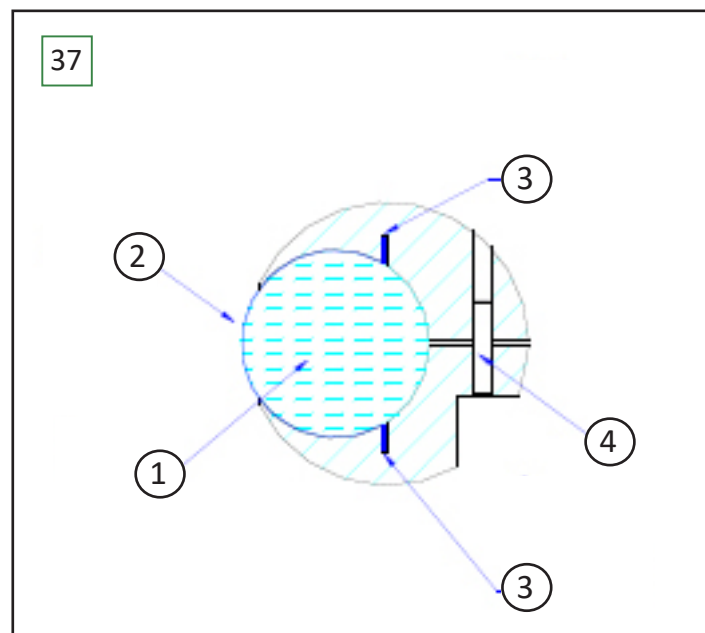
NOTE: Otherwise follow the instructions given in paragraph "sponge and net washing".



Sponge and net replacement:

- Open the sleeve by widening the two “shells”
- remove the three worn sponges (pos.1 pict.37)
- extract the net (pos.2 pict.37)
- insert one of the two ends reinforced by the PVC strip into the suitable fixing slot (pos.3 pict.37) in one of the two “shells”
- insert the other reinforced end into the second “shell”
- wet the three new sponges with water and put them side by side on the net
- close the two sleeve “shells” by centring them using the dowels (pos.4 pict.37), checking that the sponges adhere evenly over the whole net surface
- insert the sleeve into the small tank
- apply the closing cap
- reassemble the counter sponge unit
- reposition the small tank in the taping head.

NOTE: Before repositioning the lower small tank in the taping head, clean the latter with some compressed air to remove any water leaks during overturning. Pay special attention to the dispensing unit.



REPLACEMENT OF THE PERISTALTIC ELECTRIC PUMP PIPES

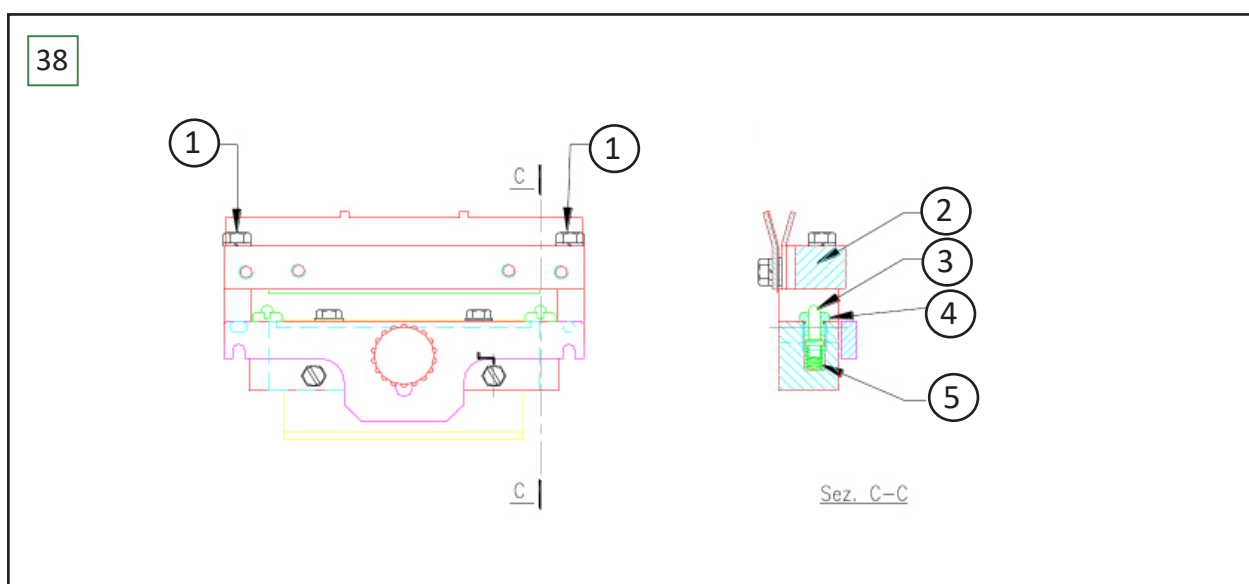
- Extract the silicone pipes from the pipe fittings
- extract the worn pipes paying attention to their position. As you can see, the pipes have a different sections, so to make the peristaltic electric pump work correctly keep the pipes in their right position
- put one of the pipe ends on the pipe fitting
- start the machine making sure you can do it, without causing accidents or damage
- insert the free end of the pipe into the pump in the direction of rotation of the rollers. The pipe will be made rotate by the pump body towards the opposite side
- take the pipe and fix it to the pipe fitting
- repeat this operation for the other pipes.

NOTE: The delivery pipe diameter must be of 4/6 mm while the return pipe diameter must be of 6/8 mm.

CHECK/REPLACEMENT OF THE BLADE PUSHING PINS

- release the stop and overturn the small tank
- remove the counter sponge unit by turning the locking knob anticlockwise
- apply slight pressure on the blade pushing pin (pos.3 pict.38) using a screwdriver checking it slides easily without mechanical locks or obstacles; otherwise replace it or reassemble the counter sponge unit.
- remove the cutting counterblade support (pos.2 pict.38), by acting on the fastening screws (pos.1 pict.38)
- loosen the blade pushing bush (pos.4 pict.38) using a pin wrench, by paying attention to not lose the spring (pos.5 pict.38) in the internal seat
- replace the worn blade pushing pin with a new one, extracting it from the blade pushing bush
- screw the blade pushing bush remembering to insert the spring
- reassemble the blade pushing unit on the counter sponge unit
- reassemble the counter sponge unit
- reposition the small tanks in the taping heads.

NOTE: Before repositioning the lower small tank in the taping head, clean the latter with some compressed air to remove any water leaks during overturning. Pay special attention to the dispensing unit.



CUTTING BLADE CHECK/REPLACEMENT

- Close the machine pneumatic supply
- release the stop and overturn the small tank
- remove the counter sponge unit (pos.1 pict.39)
- check the wear of the cutting blade edge (pos.2 pict.39); if it is worn, replace it, otherwise reassemble the counter sponge unit.
- loosen the cutting blade fastening screws (pos.3 pict.39)
- replace the worn blade with the new one by paying attention to the position of the blade cutting angle, which must be towards the small tank
- lock the blade fastening screws
- reassemble the counter sponge unit
- carry out some cutting tests by inserting a piece of paper into the small tank and pushing the blade manually
- check the cut quality

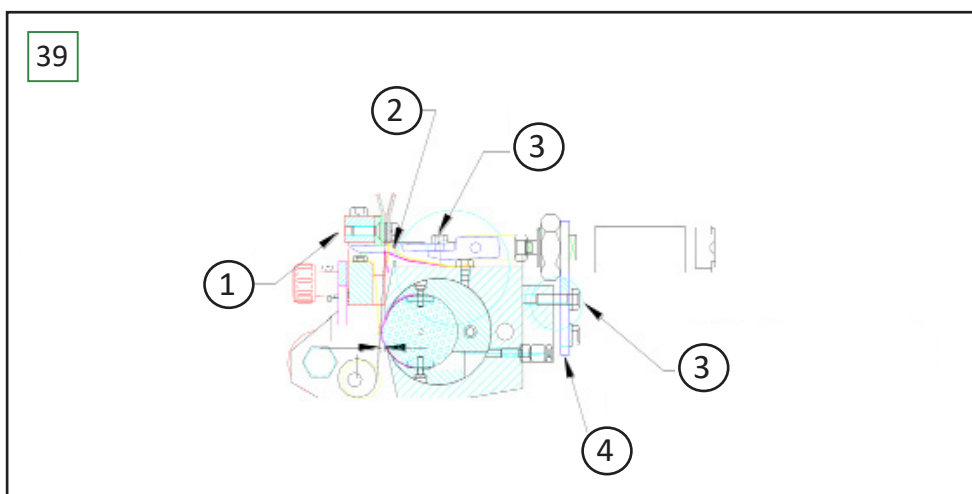
NOTE: if the cut quality is not acceptable, adjust the blade orientation by acting on the fastening screws of the cutting cylinder support (pos.4 pict.39). The support must be lifted or lowered until the blade is well aligned with the counterblade.

- check the blade travel allows the paper passage with a backward blade, and the complete paper cut, over all its length, with the blade at the end of stroke.

NOTE: to move the blade travel forward or backward as to the counterblade loosen or tighten the cylinder rod.

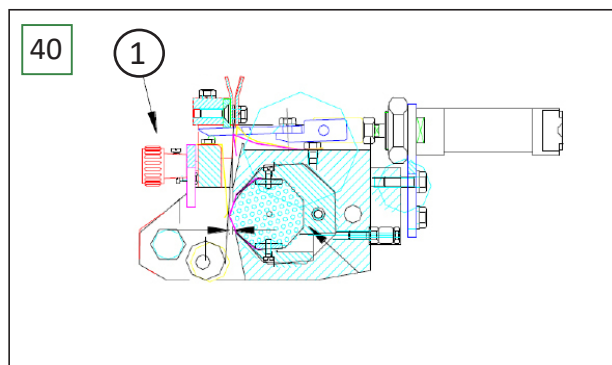
- unlock the paper passage
- reposition the small tanks in the taping heads
- open the machine pneumatic supply.

NOTE: Before repositioning the lower small tank in the taping head, clean the latter with some compressed air to remove any water leaks during overturning. Pay special attention to the dispensing unit.



COUNTERBLADE CHECK/REPLACEMENT

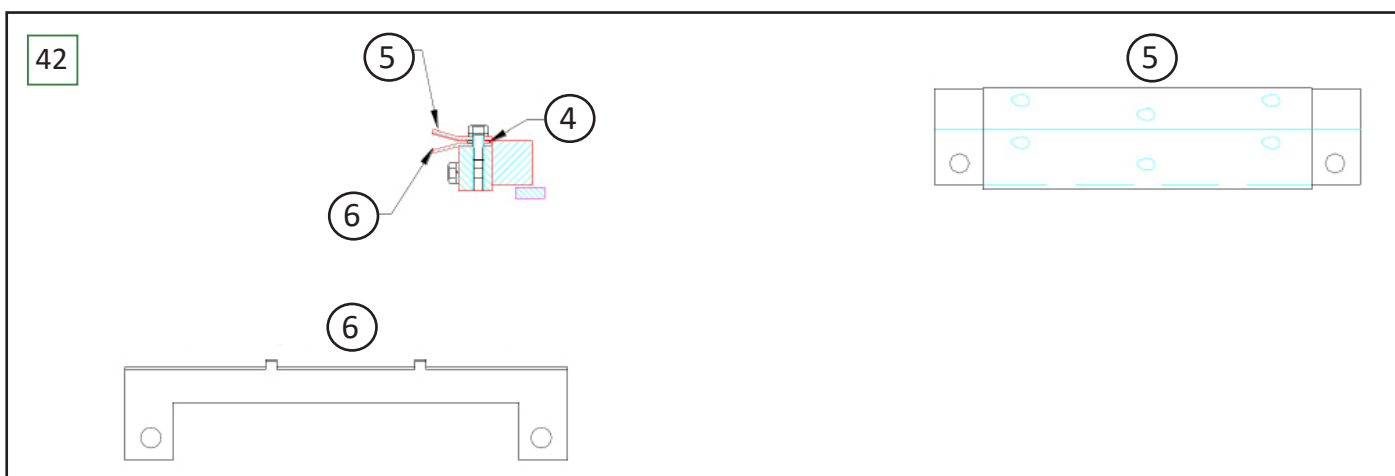
- Release the stop and overturn the small tank
- remove the counter sponge unit (pos.1 pict.40) by turning the locking knob anticlockwise
- check the wear of the counterblade edge (pos.2 pict.41); if it is worn, replace it, otherwise reassemble the counter sponge unit
- remove the paper guiding chutes, by acting on the fastening screws (pos.3 pict.41), by paying attention not to lose the shim washer (pos. 4 pict.42) located between the two chutes
- loosen the counterblade fastening screws
- rotate or replace the completely worn counterblade according to the number of worn sharp profiles (one or both)



NOTE: since the counterblade is symmetrical it has two sharp profiles.

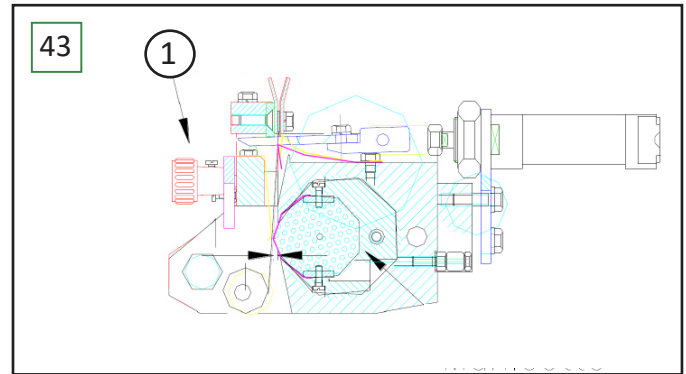
- reassemble the two paper guiding chutes by inserting the shim washer between them, by paying attention to the front chute positioning (pos.5 pict. 42) and to the rear chute positioning (pos.6 pict. 42)
- reassemble the counter sponge unit
- reposition the small tanks in the taping heads.
- make sure the dispenser corrugated roller turns freely

NOTE: Before repositioning the lower small tank in the taping head, clean the latter with some compressed air to remove any water leaks during overturning. Pay special attention to the dispensing unit.

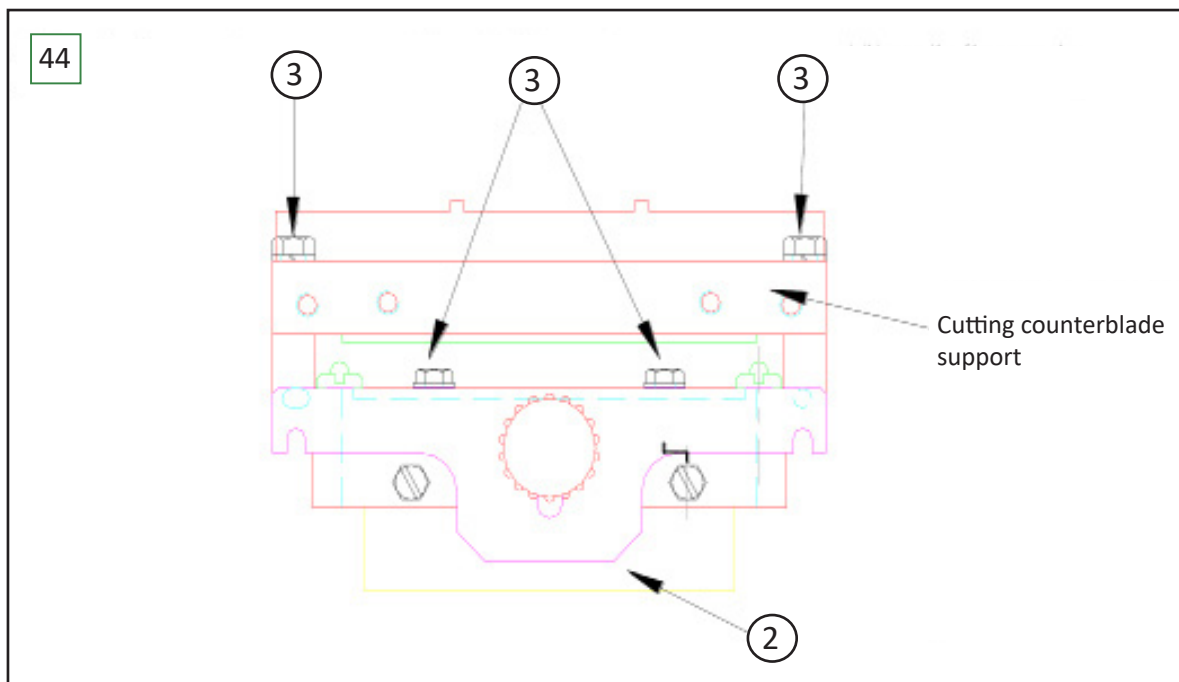


PAPER GUIDING PLATE CHECK/REPLACEMENT

- release the stop and overturn the small tank
- remove the counter sponge unit (pos.1 pict.42) by turning the locking knob anticlockwise
- check that the paper guiding plate edge (pos.2 pict.43) is not worn, and that the plate is not deformed, otherwise carry out maintenance, or reassemble the counter sponge unit
- remove the paper guiding chutes, by acting on the fastening screws (pos.3 pict.43), by paying attention not to lose the shim washer located between the two chutes
- replace the worn paper guiding plate with the new one
- reassemble the counter sponge unit
- reposition the small tanks in the taping heads.

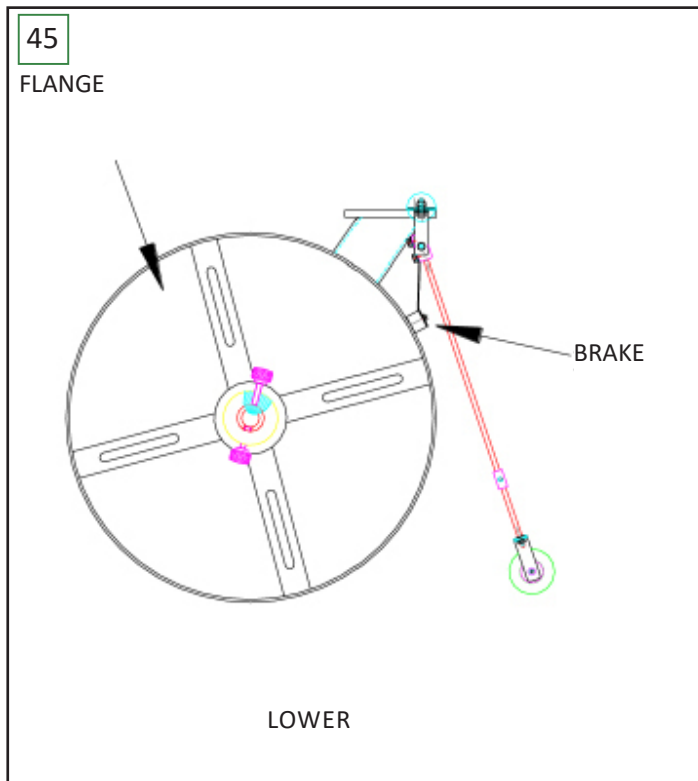


NOTE: Before repositioning the lower small tank in the taping head, clean the latter with some compressed air to remove any water leaks during overturning. Pay special attention to the dispensing unit.



REEL CARRIER FUNCTIONALITY CHECK

In order to avoid any excessive unwinding of the gummed paper reels, check the reel carrier brake functionality, making sure that it is in good condition and that during the braking action caused by the spring tension it rests uniformly on the reel carrier flange.

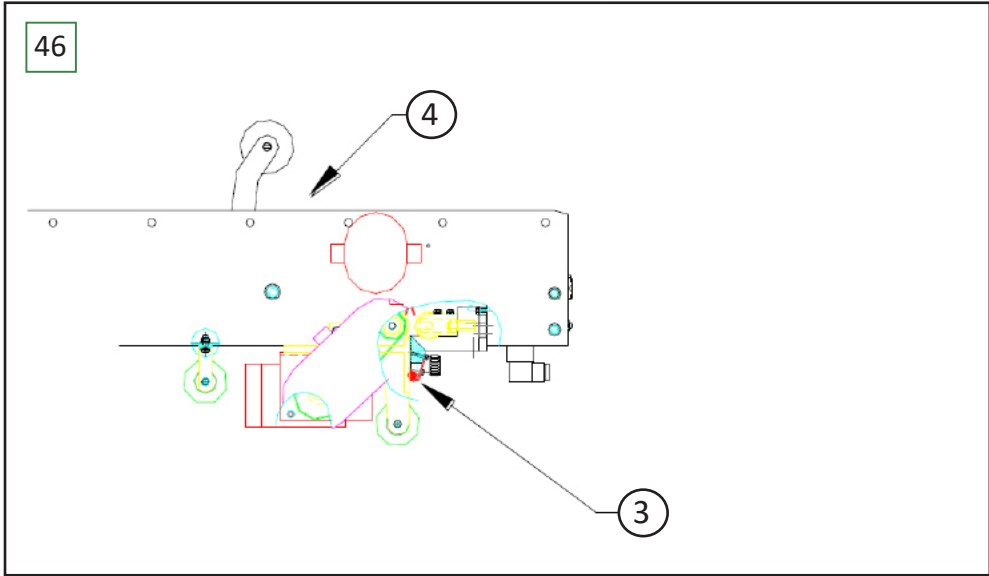


CHECK OF THE TAPE RETURN ROLLER ALIGNMENT

In order to obtain a correct gummed paper unwinding position the flanges of all return rollers so that they always keep the paper centred on the taping head centre line. Moreover, the distance between the flanges must be slightly higher, 1-2 mm max, than the width of the paper used.

CHECK OF THE LOWER PAPER NON-RETURN BALL FUNCTIONALITY

In order to avoid any backward movement of the paper make sure there are three stop balls (pos.3 pict.46) in the paper stop device assembled on the lower head (pos.4 pict.46), and that the balls are not locked.



5.12 Troubleshooting

This chapter describes how to solve the most common problems which may arise in the machine.

PROBLEM	SOLUTION
The machine does not start	<ul style="list-style-type: none"> • Check the power supply presence • Check that the connectors are enabled • Check the thermal cut-out • Check the automatic switches • Check the pneumatic feeding presence • Check that the pressure is sufficient • Check that the safety doors are closed
The machine is in emergency conditions	<ul style="list-style-type: none"> • Check that the emergency button is not pressed • Check the thermal cut-out • Check the automatic switches • Check the pneumatic feeding presence • Check that the pressure is sufficient • Check that the safety doors are closed
The belts do not start	<ul style="list-style-type: none"> • Check the thermal cut-out • Check the pneumatic feeding presence • Check that the pressure is sufficient • Check the belt driving system • Check the correct operation of the box inlet photocells
Lack of dispensing from the head	<ul style="list-style-type: none"> • Check the presence of jammed paper in the taping head • Check the paper passage point is not clogged by dirt or pieces of paper
The paper comes out but is not moistened correctly	<ul style="list-style-type: none"> • Make sure that some water is inside the suitable tank • Check that the sponges and the net protrude uniformly from the small tank slit • Check the correct positioning of the counter-moistening plate
After being dispensed correctly the paper is withdrawn	<ul style="list-style-type: none"> • Check the ball presence in the paper stop device assembled on the lower taping head
After being dispensed the paper is not glued to the box	<ul style="list-style-type: none"> • Check that the working pressure of the front pressure rollers is not too low • Check that the paper is moistened uniformly
The cut is not clean but sometimes it is "with a snatch"	<ul style="list-style-type: none"> • Check that the cutting edge of the blade and/or of the counterblade is not worn • Check the cut cylinder has no working problems • Make sure the blade is aligned with the counterblade
The machine interrupts the automatic cycle	<ul style="list-style-type: none"> • Check the previous conditions and if necessary call the Technical Support System.

In case of malfunction contact the Technical Service Centre (see par. "Informative letter").

5.13 Recommended spare parts

GEM B520-GP			
NO.	CODE	RECOMMDED Q.TY	DESCRIPTION
1	801-10-527	1	Roller L=180,5mm
2	801-10-526	1	Roller=518mm
3	801-00-788	1	Spring
4	851-02-903	1	Limit switch (PIZZATO art.FR538)2738
5	851-00-730	4	Bearing \varnothing 32x15x9 (SKF 6002-2RS1)
6	851-03-879	1	Chain 3/8"x 40 pitches closed
7	851-03-598	1	Worm gear NMRV040 PAM 140/11 R.1:10
8	851-03-881	1	Three-phase motor 230/400V 50Hz
9	851-02-387	1	Single-phase motor 220/240V 50Hz
10	851-02-389	1	Single-phase motor 220V 60Hz
11	851-02-390	1	Single-phase motor 100V 50/60Hz
12	851-03-683	1	Single-phase motor 120V 60Hz
13	801-14-240	2	Complete transmission unit h=50
14	851-01-677	1	Fuse \varnothing 5x20 1A
15	851-05-659	2	Reel 24Vac 50/60Hz art.G7H
16	851-03-168	2	Key safety switch art. FR 692

RECOMMENDED SPARE PARTS FOR TAPING HEAD

GEM B520-GP - HEAD			
MECHANICAL EQUIPMENT			
NO.	CODE	RECOMM. Q.TY	DESCRIPTION
1	02620	1	4649/4/A Upper paper stop device
2	03900	2	1545/4/A Dispenser roller
3	49405	3	Balls D13/32" AISI 420
4	MC500002_0	2	OR seal 156 Ø3.53 - int. Ø 52.39mm NBR-70SH-A
5	MC700014_0	48	Pipe for pump D6/8
6	MC700015_0	48	Pipe for pump D4/6
7	MD200003_0	2	Paper guiding unit
8	MD400007_0	2	Counterblade
9	MD400008_0	2	Counterblade support
10	MD400012_0	2	Cutting blade
11	MD500009_0	4	Blade pushing pin
12	MDP00001_0	2	Cap for sleeve
13	MDP00002_0	2	Small tank sleeve
14	MDP00005_0	24	Net for sleeve
15	MF100007_0	1	Counter sponge unit
16	MF100009_0	2	Sponge holder
17	MF100010_0	4	Moistening sponge kit
18	MF200010_0	4	Pressure roller assembly D50
19	MC400007_0	4	Compression spring Øf=0.63 ØM=5.0 lo=18.5 f1=10.3 P1=15.49N ESTR.
ELECTRICAL EQUIPMENT			
20	20452	1	Thrust electromagnet 24N C=5mm ED25% 24VCC 2,6 A
21	EC100002_0	1	Contact thermostat NC<=50°C 10A AC1 250VAC
22	EC100003_0	1	Direct reading photocell with background suppression, detecting distance 35÷140mm 10÷30VDC + cable with connector SICK GTB6-P4212
PNEUMATIC EQUIPMENT			
23	30073	1	Pneumatic microcylinder ISO D20XC75M
24	MC700002_0	1	Pneumatic microcylinder D20XC12 without rear hinge, openings 1/8G

5.14 Intervention record sheet

Fill in the table below with the features of the maintenance intervention carried out on the machine.

DATE	MACHINE PART	OPERATION	OPERATION TIME	NOTES	SIGNATURE

6 PUTTING OUT OF SERVICE

6.1 Temporary putting out of service

If the machine is not to be used for more than 3 months, we recommend carrying out the following operations:

- ✎ Disconnect the machine from the energy sources.
- ✎ Clean the machine.
- ✎ Cover the machine with a waterproof tarpaulin.

6.2 Dismantling

If the machine must be put out of service and dismantled, follow the standards to safeguard the environment as well as those on the recovery of recyclable materials.

The parts to dismantle must be given to specialized companies with the regular authorization to transport and dispose of them.



ANNEXES

A01 - *WIRING DIAGRAM*

A02 - *SPARE PARTS LIST*



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