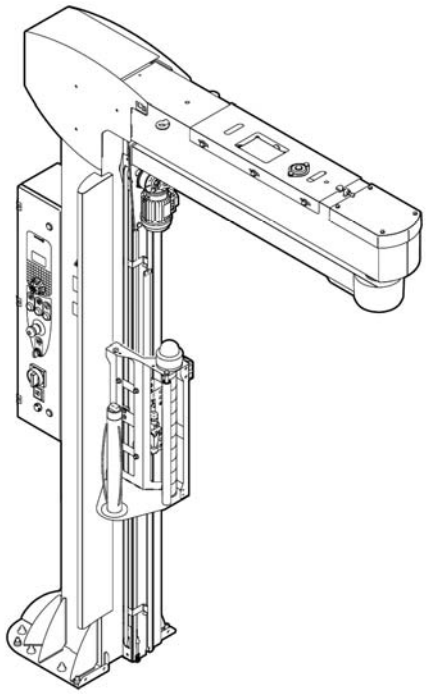
ROBOPAC

AETNAGROUP

ENG

USE AND MAINTENANCE MANUAL

CE



Rotating arm machine for wrapping palletized loads with stretch film

ECOWRAP - ECOWRAP XL - MASTERWRAP XL

Translation of the original instructions

Instructions manual code: **3709301318.0**

English Edition: **0216**

Serial number

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

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Summary

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.
- All information supplied by the recipients represents an important contributionto the improvement of the after-sales service that the manufacturerwill offer to his/her customers.
- The symbols described below are used to highlight the most important information or specifications.

Danger - Warning

The symbol indicates extremely hazardous situations which, if ignored, could seriously jeopardise personal health and safety.

Caution - Warning

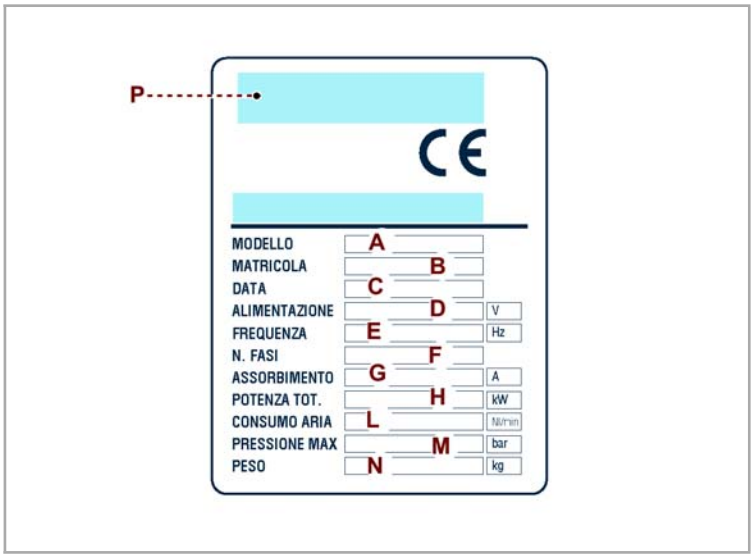
The symbol indicates that suitable actions must be adopted to preventpersonal health and safety risks and avoid economic damages.

Important

This symbol indicates critical technical and operating informationthat shall be observed.

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.

— **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.

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.

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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.
- Wiring diagram and list of components.
- 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.
  - Machine programming software.
  - Electrical wiring diagram.

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 "Instructions for use" specified in the manual and those applied directly to the machine.
  It is important to dedicate a little time to read the "Instructions for use" in order to minimise the risks and avoid unpleasant accidents.
- Before performing any operation, the 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.
- Caution is essential.
  Safety is also in the hands of those who interface with the machine throughout its life span.
  Sometimes, accidents can be caused by a "careless" use of the machine by the operator.
  Usually it is too late to remember what should have been done when the accident has already happened.
- Preserve the readability of the information signs and observe the indications given.
  The information signs may have different shapes and colours, indicating hazards, obligations, prohibitions and information.
- The manufacturer has designed the machine observing all the "good manufacturing regulations" and the standards in force.
  The machine has been designed to be constructed and equipped with devices that ensure intrinsic safety.
  Tampering with the safety devices and the removal of the same may create risks (even severe) for the operators.
- The personnel authorised to carry out any operation with the machine must have acknowledged experience in the specific field.
- **The manufacturer is not responsible for any damage to the product delivered in the package during the wrapping and stabilisation and the following operation phases.**
  Non compliance with the instructions given may cause risks for safety and health of the persons and economic damages.

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.
- Handle (load and unload) the machine according to the instructions affixed directly to the machine, to the package and those in the user manual.
- 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.
- Make sure the machine and its components are properly fastened to the transport mean.
  Check the machine dimensions and affix proper signs if the machine overall dimensions exceed the values allowed by road regulations.
- 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.
- Provide proper safety conditions when operating at high altitudes areas that are dangerous and hard to access.
- 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.
  Non compliance with the instructions given may cause risks for safety and health of the persons and economic damages.

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 machinery has been designed and manufactured to satisfy all the operating conditions indicated by the manufacturer.
  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.
- Do not use the machinery with the safety devices not properly installed and efficient.
- 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 (ordinary) 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.
  Non compliance with the instructions given may cause risks for safety and health of the persons and economic damages.

2.4. SAFETY WARNINGS RELATED TO INCORRECT USE

Read the next warnings carefully.

2.4.1.INCORRECT USE THAT CAN BE REASONABLY EXPECTED

- 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 wrapping and stabilising products with regular shape or with a shape that ensure a stable wrapping.
  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.
  DO NOT wrap or palletize products in packaging (boxes, containers for liquids, etc…) with an irregular form or one that does NOT guarantee their stability.
- 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 wrap products that are loose, that have an irregular shape or that are not suitably collected, to prevent inadequate palletisation.
- Do not use the machine to wrap and stabilise living beings (animals and humans).
- DO NOT use the machine with wrapping material different from that provided by the manufacturer.
- Do not use the machine as a lifting device or as a rest surface for work activities (for example, a workbench).
- Do not over stretch or pre-stretch the film and do not wrap with an excessive number of bindings in order to prevent damaging the packages and products contained inside.
- 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.

2.4.2.EMPLOYER OBLIGATIONS

- The operator must be trained to acquire the skills required for the packaging machine or an equivalent machine.
  Upon completion of training, make sure the operator has understood the contents in the use manual, especially the information regarding safety.
- 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.
- Make sure the machine is ONLY used by adequately trained, documented and authorized operators.

The employer must draw up the documentation of the specific training carried out by the operators in order to exhibit it in case of litigation.

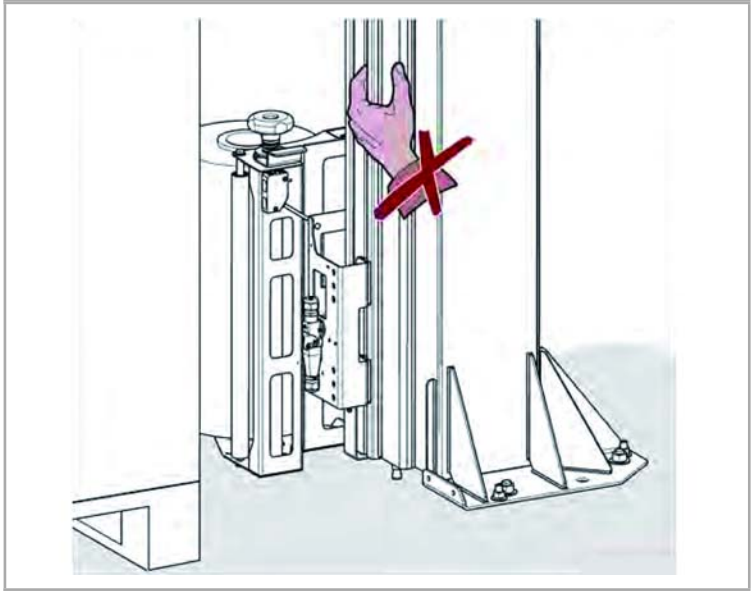
2.5. SAFETY WARNINGS ON RESIDUAL RISKS

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 purpose of this information is to make the user aware to pay special attention in order to foresee any risk.
There is no substitute for carefulness.
Safety also lies in the hands of all operators that work on the machinery.

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

— **Danger of knocks:**
do not come near machineparts during its operation.

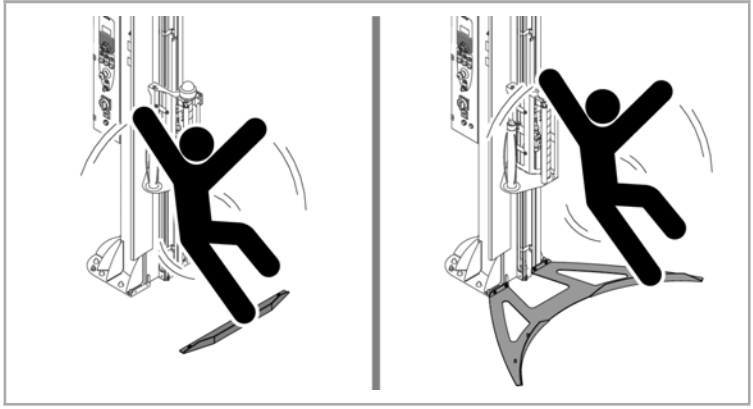
— **Upper limb cutting hazard:**
Do not place hands inside components in motion.



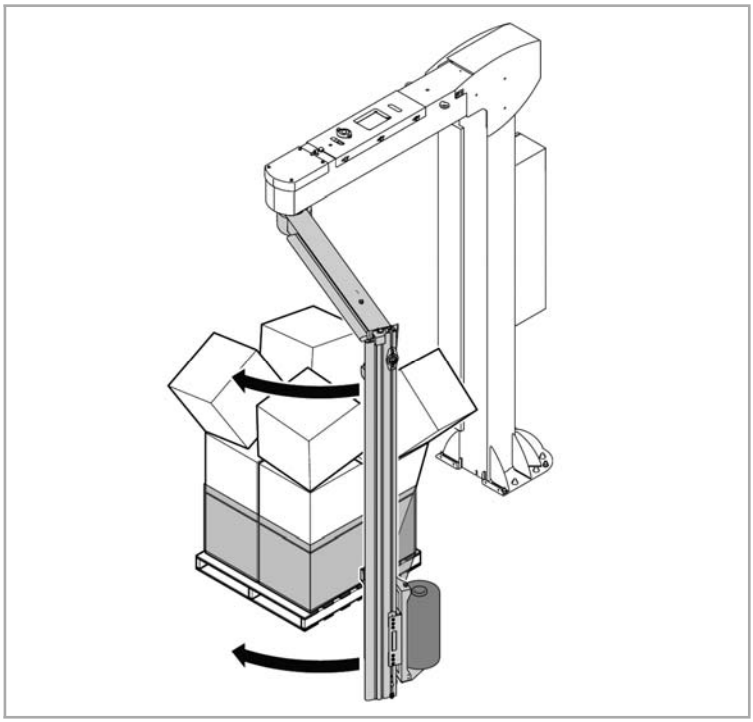
— **Body crushing hazard:**
Do not linger in the machine operating area.

— **Danger of falling:**
Do not climb to access the higher areas of the machine; use appropriate means.
— **Danger of falling packages:**
Adjust the speed and the stretching of the machine if the pallet contains unstable elements.

— **Danger of tripping:**
Do not enter the working area of the machine.



— **Danger falling objects:**
Do not use the machine at a speed that is not appropriate for the product you need to wrap.
If the packages you need to wrap contain unstable or hazardous elements, you must adopt suitable safety precautions (i.e. perimeter guards) to prevent the risk of harming the physical wellbeing of personnel.



2.6. 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.
— Enable all machine safety devices before performing any maintenance and regulation operations.
— Delimitate the work area complying with the safety conditions as provided by the standards on workplace safety in order to minimise the risks.
— The maintenance interventions in the areas that are not easily accessible or dangerous must be carried out after having ensured the necessary conditions.
— The personnel authorised to carry out the ordinary maintenance (regulations, replacements etc.) must possess the necessary technical and professional knowledge.
— DO NOT carry out interventions different from those indicated in the user manual without the written consent of the manufacturer.
— 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 PARE PARTS or with SIMILAR design and functional features.
— The use of similar but non-original spare parts may lead to improper repairs, altered performance and economic damage.

The components and/or safety devices shall be replaces ONLY with original spare parts to avoid altering the provided safety level.

— 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.
— 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.

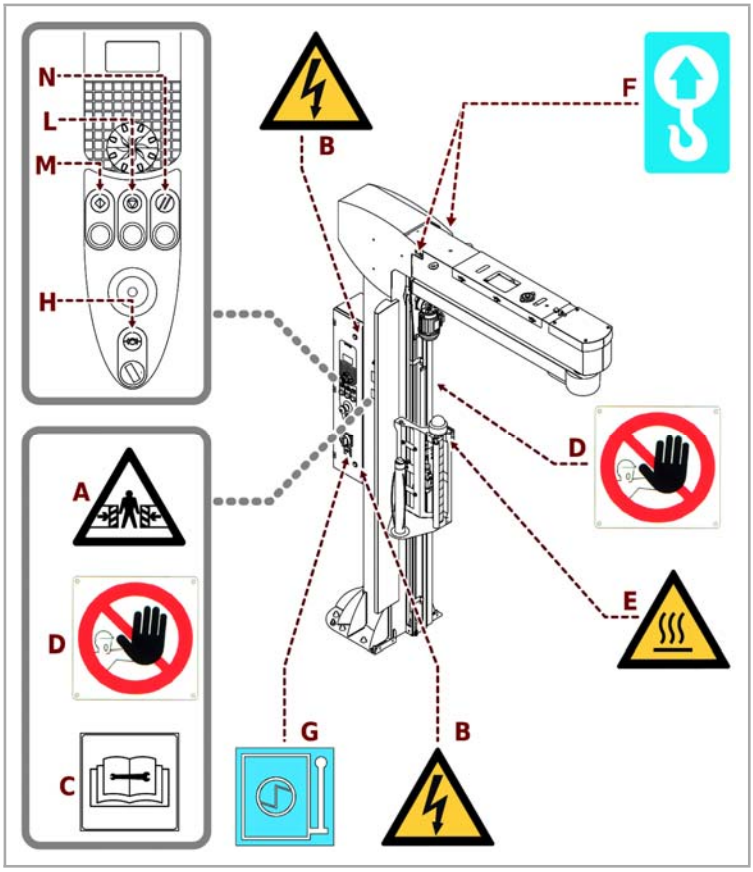
— All the extraordinary maintenance interventions shall be carried out EXCLUSIVELY by authorised personnel with particular expertise in the field of intervention.

Non compliance with the instructions given may cause risks for safety and health of the persons and economic damages.

2.7. 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.

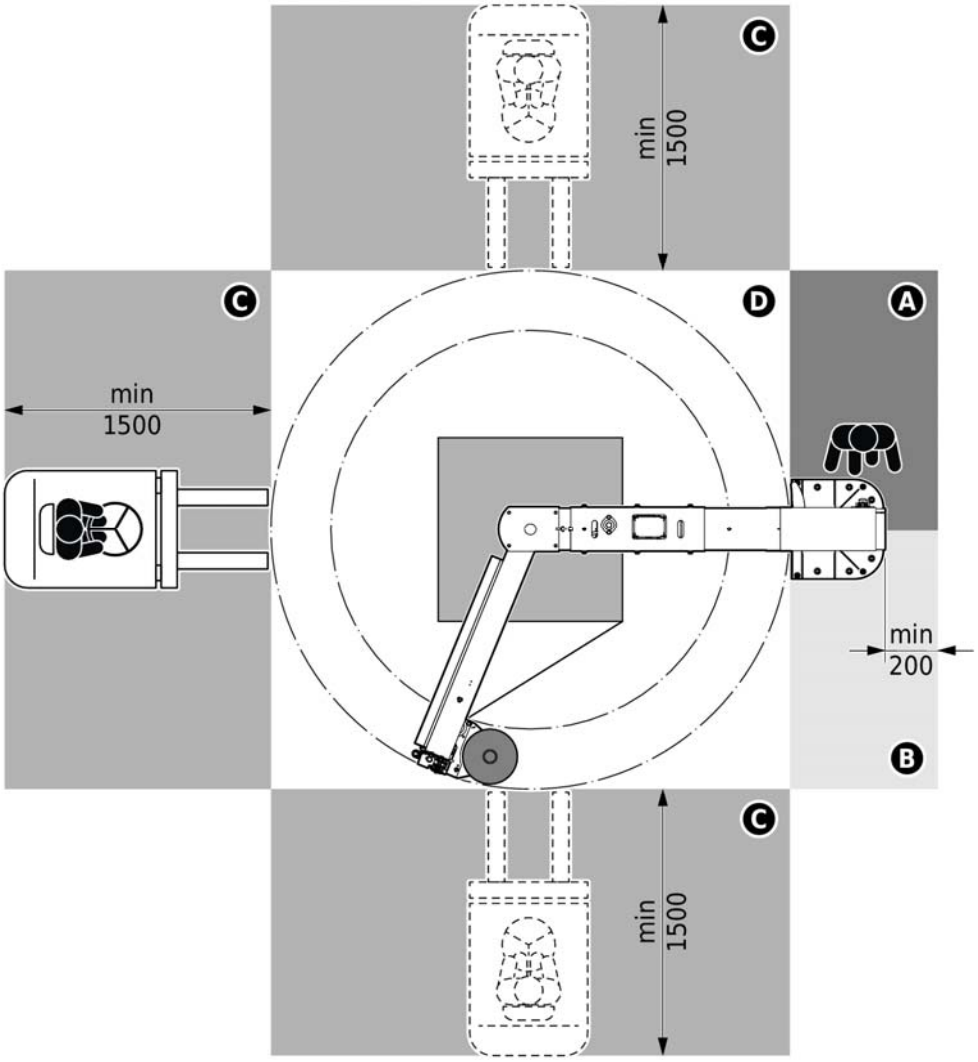
A) Danger of body crushing: do not stand in the working area of the machine.
B) Electrical hazard warning sign: do not enter area to avoid hazards of electrical shocks or electrocution.
C) Mandatory sign: it indicates the obligation to read the entire documentation before using the machine.
D) Prohibition to transit: it is forbidden to stand or pass in the operating area.
E) Hazard sign: Do not touch the area to avoid the risk of burns.
F) Information sign: it indicates the points where to attach the hooks of the lifting device.
G) Information sign: it indentified the power cut-off switch.
H) Information sign: brake release symbol.
L) Information signal: machine Stop symbol.
M) Information sign: machine Start symbol.
N) Information signal: machine Reset symbol.



Important
Make sure the labels are clearly readable.
If they are not, replace them and fit them onto the machine where they originally were.

2.8. SURROUNDING AREAS

The illustration depicts the perimeter work areas of the machine.



A) Operator's working area.
Reel loading area.

B) Access area for maintenance interval.

C) Pallet loading/unloading area.

D) Machine's operating area.

3. TECHNICAL INFORMATION

3.1. MACHINE GENERAL DESCRIPTION

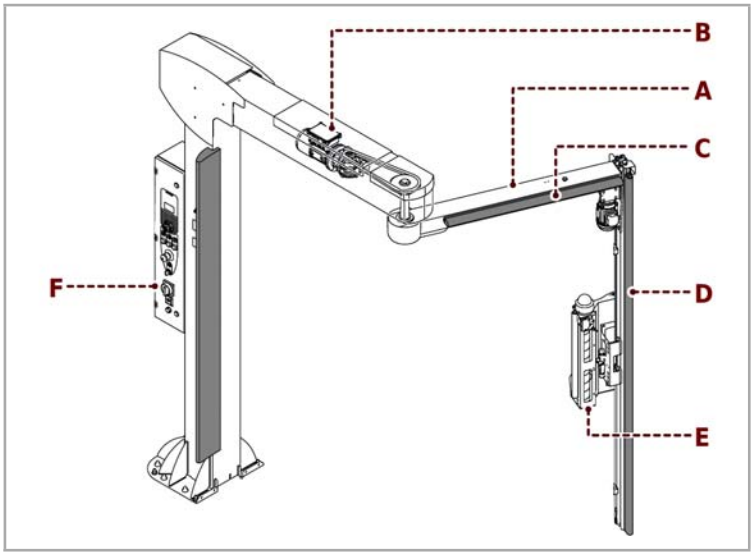
- Semi-automatic machine with rotating arm for the stabilization of palletized loads with stretch film.
- The machine must be EXCLUSIVELY used in order to wrap and stabilise products contained in packs (boxes, containers for liquids, etc.), having a regular shape or a shape that allows for stable palletising.
- 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.
- The machine includes an arm that turns around a fixed pallet and by a reel carriage which unrolls and stretches the coating.
- 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.
- The loads are wrapped using reels of stretchable film which can be readily found on sale.
- 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.

- The user is responsible for the loading and unloading of the pallet, aswell as for the insertion and cutting of the film.
- During the operating stages, just one operator is necessary for pallet unloading and loading operations and reel change.

3.1.1. MAIN PARTS

The following list provides a description of the main components and their functions.



A) Rotating arm: allows the reel carriage to rotate around the pallet.
The arm rotation is driven by a chain transmission, activated by the geared **(B)**.
The geared motor is fitted with a brake that keeps the arm blocked when it is stopped in phase.
The arm is equipped with safety sensitive edge **(C-D)**, which stop the rotation in the event of collision with people and/or objects situated within the arm operating range.

E) Reel carriage: is composed of a coil support which moves vertically to wrap the product.

F) Control panel: equipped with electromechanical controls and a display for wrapping parameters programming.

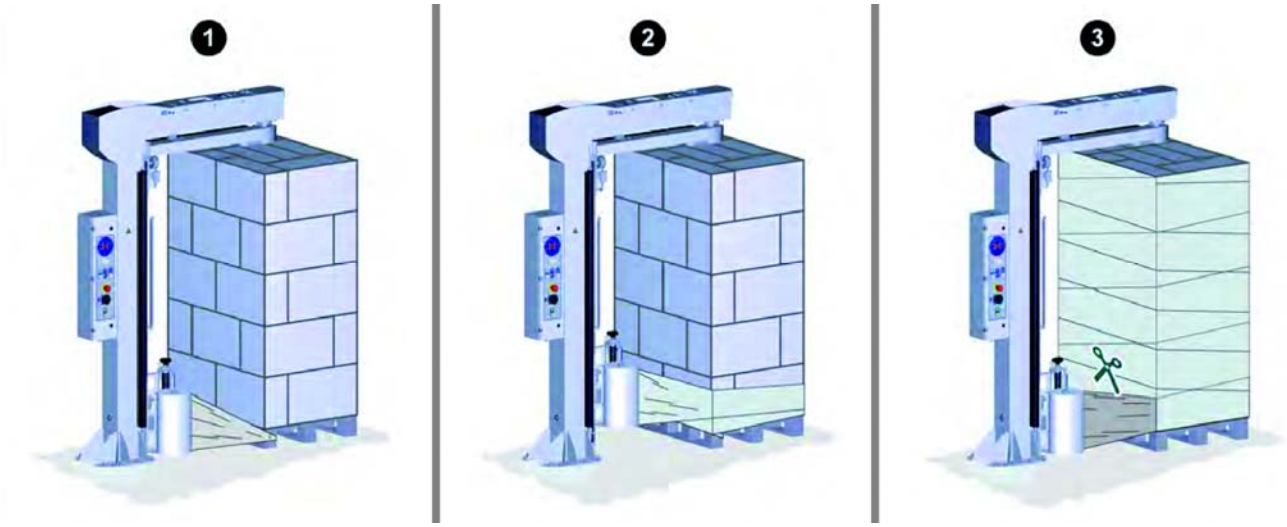
3.1.2. ROLL-HOLDER CARRIAGE SPECIFICATIONS

Depending on the various operating requirements, this machine can be set up with various reel carriages.

Type of reel holdingcarriage		*General Requirements*
FR	**h = 500 mm**	**FR** type reel carriage with friction roller, electromagnetic brake and film stretchadjustment from the control panel.
FRD		**FRD** reel carriage with clutched roller, mechanical brake and manual coating draw adjustment.

3.2. DESCRIPTION OF THE OPERATION CYCLE

The figure below shows the operating cycle. A brief description and illustration of the wrapping modes (single and double) are also provided.



— **Phase 1:**
Get closer to the wrapping area and place the pallet on the marked area.
Hook on the end piece of the coating to the pallet.

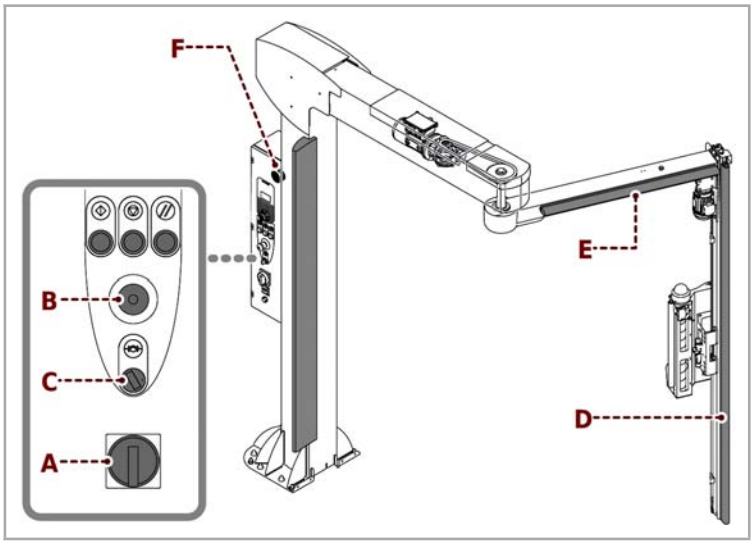
— **Phase 2:**
Start the wrapping cycle which will be carried out on the basis of parameters set.
The wrapping phase can be stopped using the special control for simple or partial wrapping.

— **Phase 3:**
Upon completion of the wrapping, the machine stops with the arm in phase.
Carry out the manual cutting of the coating.
Remove the pallet so as to position the following one.

3.3. SAFETY DEVICE DESCRIPTIONS

The machine is equipped with safety devices designed to guarantee the greatest possible degree of safety and protection for the operator.

Danger - Warning
The safety devices must be periodically checked to ensure that they are working properly.



A) Main switch: to turn the electricsupply on and off. It can bepadlocked to prevent unauthorisedpersonnel from startingthe machine during adjustmentsand maintenance.

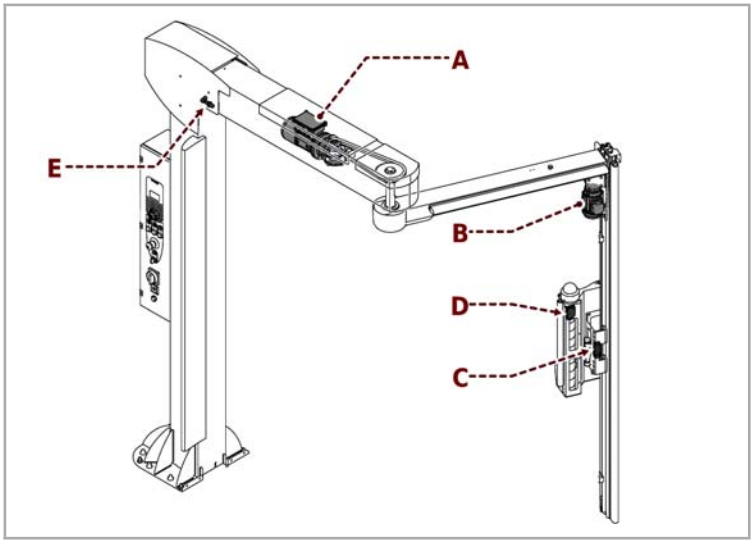
B) Emergency stop push-button: it is used to stop with a voluntary action, in case of imminent risk, the organs of the machine that may pose a rick.
The control must stay "locked" until all the normal operating conditions have been restored.
Restore the normal operating conditions, cut the film, unlock the button and press the control to reset the machine.
Start the machine again to resume the wrapping phase from the point it has been stopped.

C) Selector: control for the unlocking of the rotating arm so that it can be handled manually.
The control performs the safety functions, in case it is necessary to intervene to free the limbs crushed between the rotating arm and the column.

D-E) Sensitive edges: safety devices that stop the rotation in the event of collision with people and/or objects situated within the arm operating range.

F) Acoustic signal: used to indicate the wrapping cycle start.

3.4. DESCRIPTION OF THE ELECTRICAL DEVICES



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

A) Geared motor: drives the transmission for arm rotation during the wrapping.

B) Geared motor: drives the transmission for vertical handling of the reel carriage.

C) Carriage limit stop microswitch:activates when the reelcarriage reaches the minimumand maximum wrappingheight.

D) Photocell: detects the presenceand the height of the loadto be wrapped.

E) Inductive sensor: detects the position in "phase" of the rotating arm and enables the brake lock.

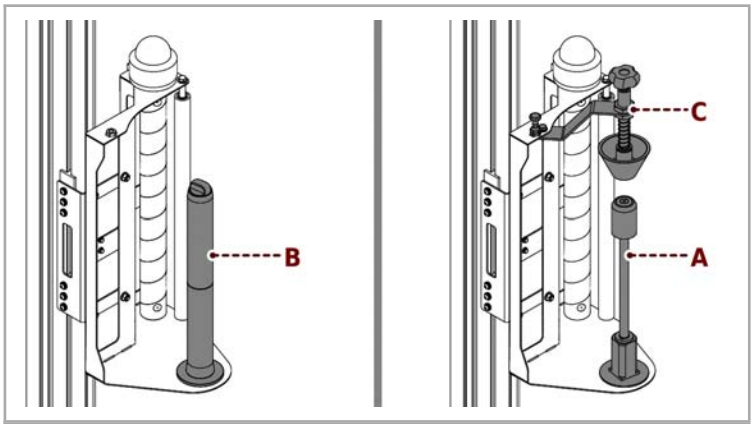
Important

For further details see the electrical diagram.

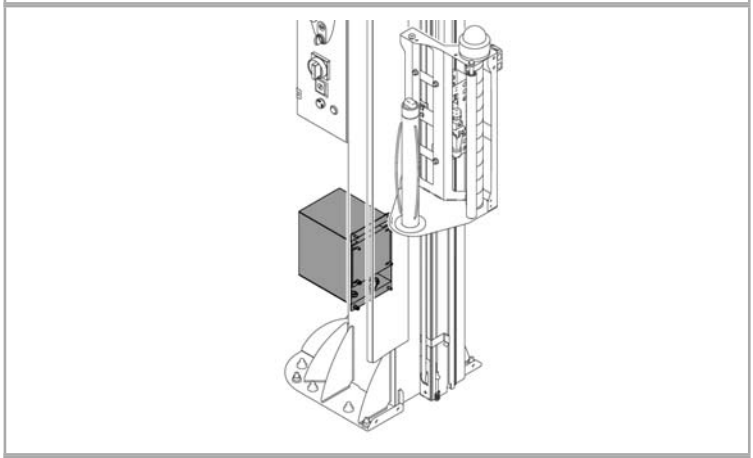
3.5. ACCESSORIES AVAILABLE UPON REQUEST

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

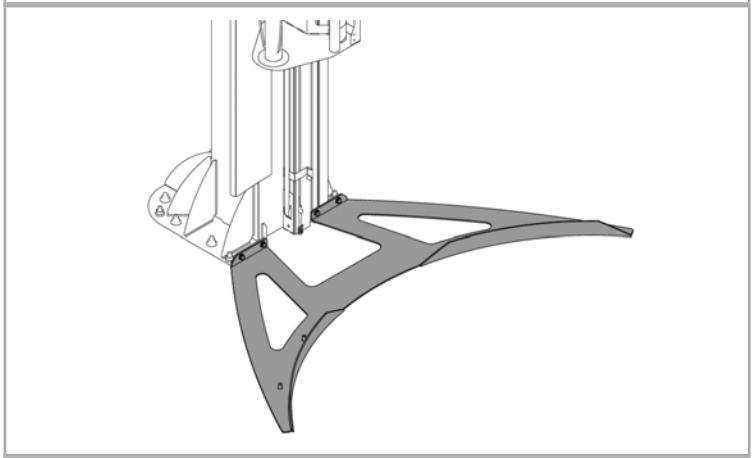
— **Film spool shaft ø 50 mm (Version CORE (A) or CORELESS (B))**
Along with the version **CORE** it is also supplied the tailstock **(C)** for a better stability of the reel.



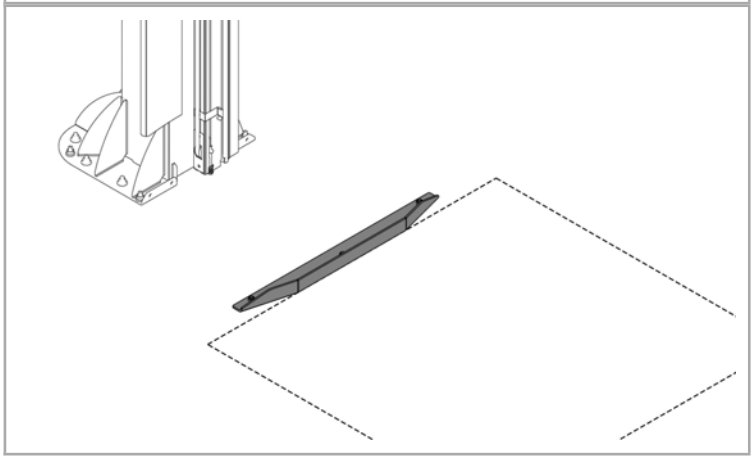
— **Autotransformer unit**
Allows the operation of the machine **110 V**.



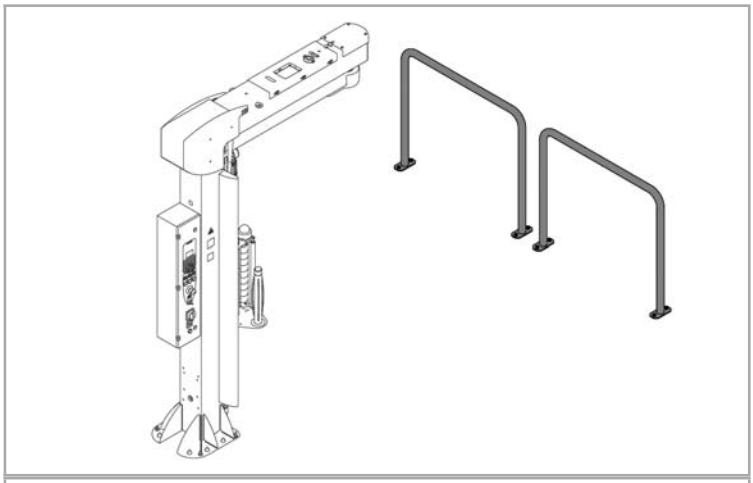
— **Front stopper**
Reference device for front loading of pallets.



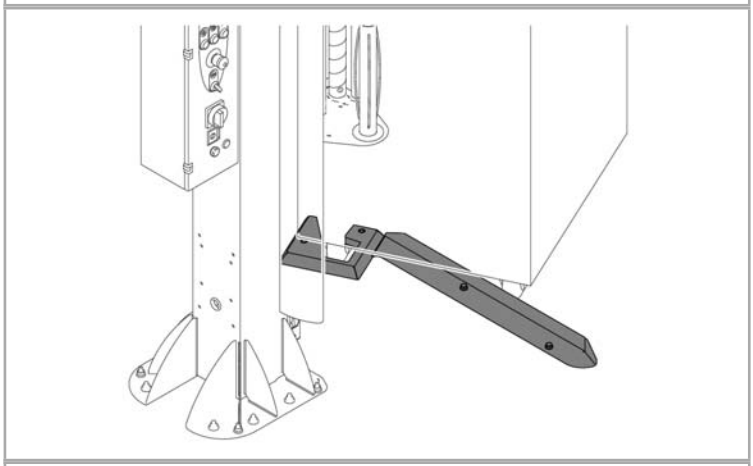
— **Longitudinal stopper**
Reference device for pallets positioning.



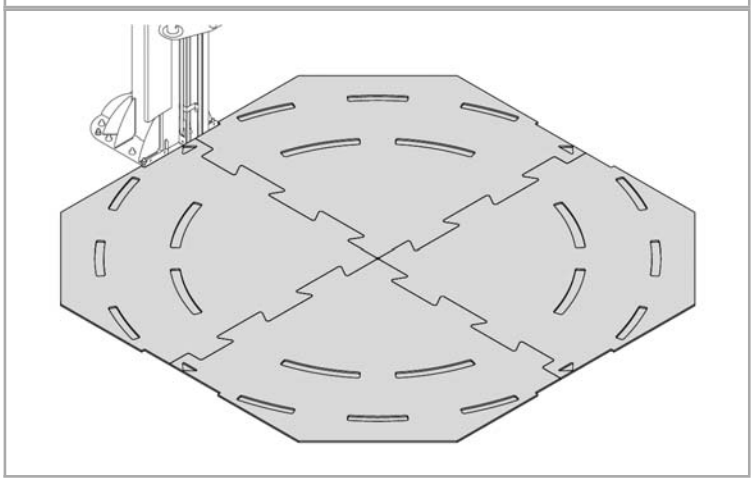
— **Work area limit barrier**
Device to be installed near the machine to separate the work area from the passage area.



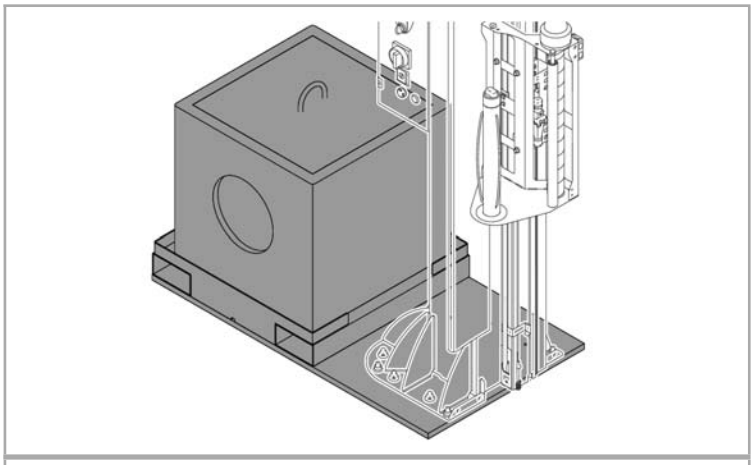
— **Stopper for roll container**
The device that allows the correct positioning of the roll containers in the machine front.



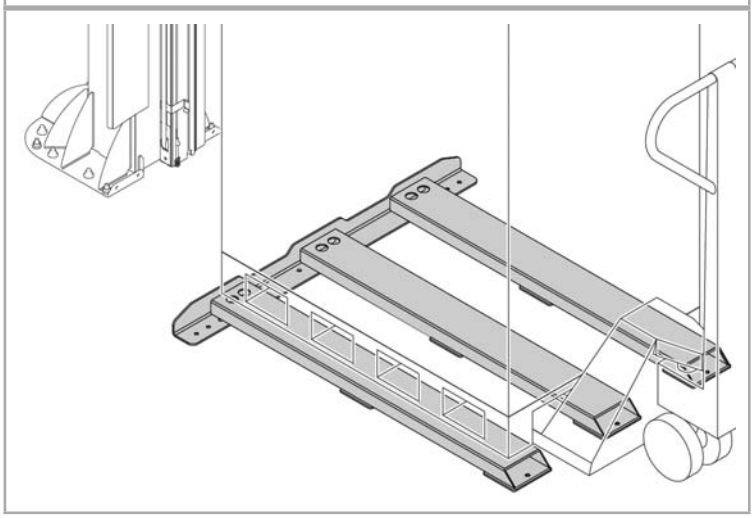
— **Work area drawing template**
The template that allows drawing on the ground the pallet positioning area **(A)** and the machine dimensions **(B)**.



— **Mobile base**
Base provided with counterweight meant to use the machine without fastening it to the ground.

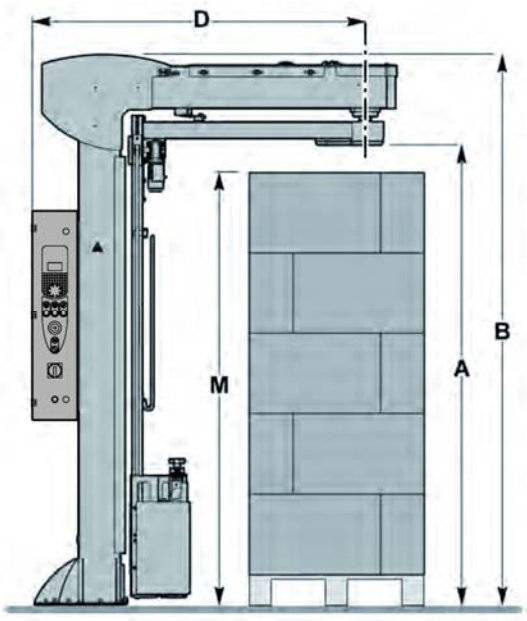


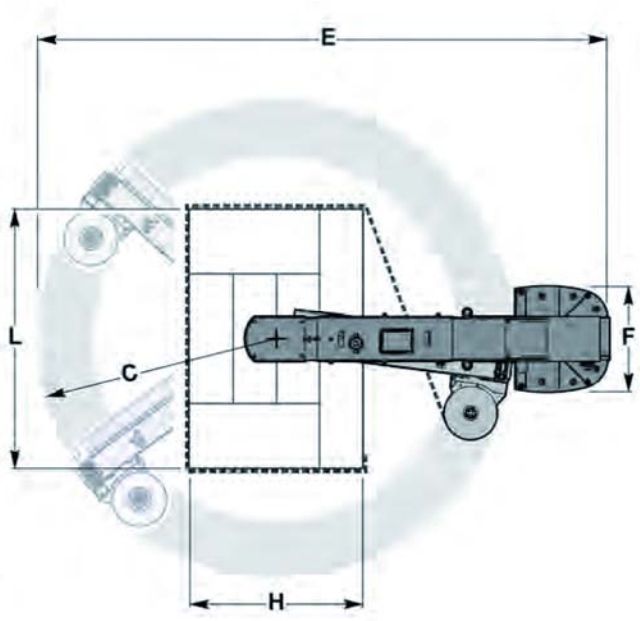
— **Pallet lifting frame**
Structure that allows lifting the pallet from the ground so as to have it wrapped in the wrapping phase.



3.6. TECHNICAL SPECIFICATIONS

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





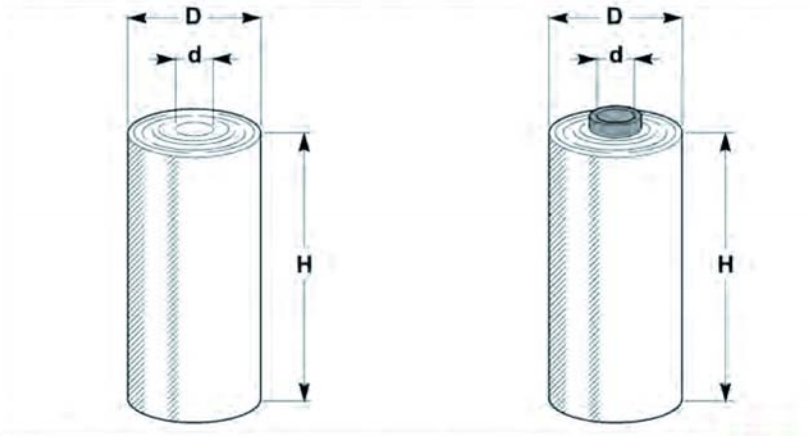
3.6.1.DIMENSIONS AND TECHNICAL CHARACTERISTICS

Description	*Units of measur-ement*	*Value*			
		Ecowrap	***Ecowrap XL Masterwrap XL h 2000***	***Masterwrap XL h 2400***	***Ecowrap XL h 2400***
A	**mm**	**2148**	**2148**	**2620**	**2620**
B	**mm**	**2575**	**2575**	**3050**	**3050**
C	**mm**	**1106**	**1223**	**1223**	**1223**
D	**mm**	**1555**	**1673**	**1673**	**1673**
E	**mm**	**2660**	**2896**	**2896**	**2896**
F	**mm**	**470**	**470**	**470**	**470**
H	**mm**	**1000**	**1200**	**1200**	**1200**
L	**mm**	**1200**	**1200**	**1200**	**1200**
M	**mm**	**2000**	**2000**	**2400**	**2400**
Supply voltage	**V**	**220-240 1Ph 220-240 3Ph 380-415 3Ph+N**			
Electrical supply frequency	**Hz**	**50/60**			
Installed power	**kW**	**0,7**			
Wrapping speed	r.p.m	**7÷11**			
Carriage up/down speed	m/min	**2,6÷6,0**			
Total weight	**kg**	**190**	**200**	**215**	**215**
Ambient operating temperature	**°C**	**0÷40**			

Characteristics of the installation area floor

Concrete foundation with resistance class to compression UNI **6132**		**C25-30**
Foundation minimum thickness	**mm**	**150**
Diameter of the reinforcement rods in metal cage	**mm**	**8**

3.7. COIL TECHNICAL SPECIFICATIONS



3.7.1.REEL FEATURES

Description	*Units of measur-ement*	*Value*
Maximum external diameter **(D)**	**mm**	**275**
Reel height **(H)**	**mm**	**500**
Film thickness	**µm**	**7÷35**
Internal diameter **(d)**	**mm**	**50[1] - 76**
Max weight	**kg**	**8**

[1] Install the optional spool carriage shaft.

3.8. NOISE LEVEL

While working, the machine reaches the noise levels shown in the table.
Acoustic power measured during working according to:

- **UNI EN ISO 3744**
- **EN ISO 11201**

Description	*Average noise pressure level **(Lpm)***	*Acoustic power level **(Lw)***	*Max. acoustic power level **(Lpo)***
Functioning in working conditions	**62,8 dB (A)**	**79,8 dB (A)**	**69,2 dB (C)**

Danger - 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 support and fastening floor of the machine must be of an industrial type.

Important

Depending on the characteristics of the flooring, it may be necessary, before positioning the machine, to create foundations at the points of the various support legs.

- The creation of the foundations and the fastening of the machine are fundamental operations for ensuring the stability and correct functioning of the machine (See "Technical data").
- 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

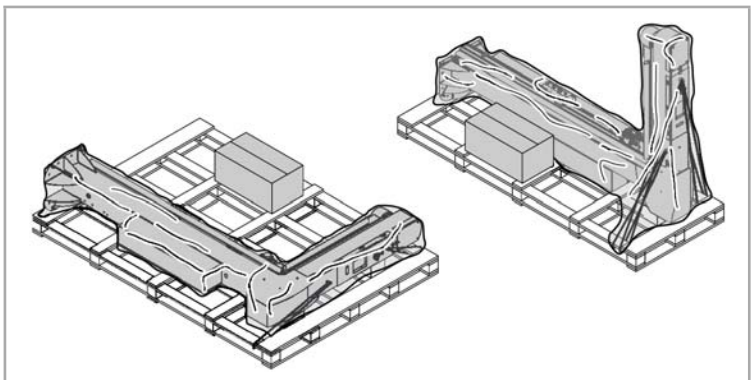
4.1. RECOMMENDATIONS FOR HANDLING AND LOADING

- **Before performing any operation, the authorised operator must make sure that he/she understood the "Instructions for use".**
- **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.**

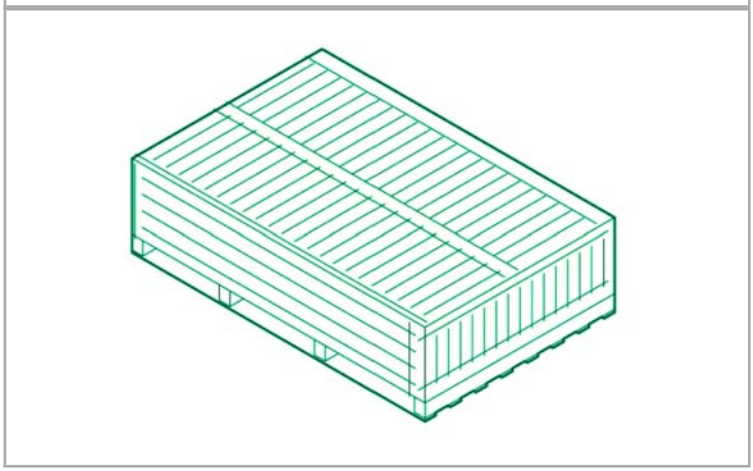
4.2. PACKAGING AND UNPACKING

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 figures show the most commontypes of packages.

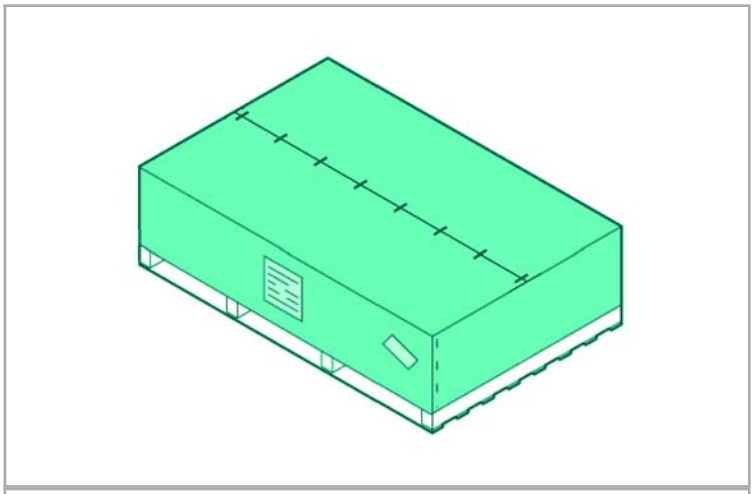
Packaging on pallet with protective nylon



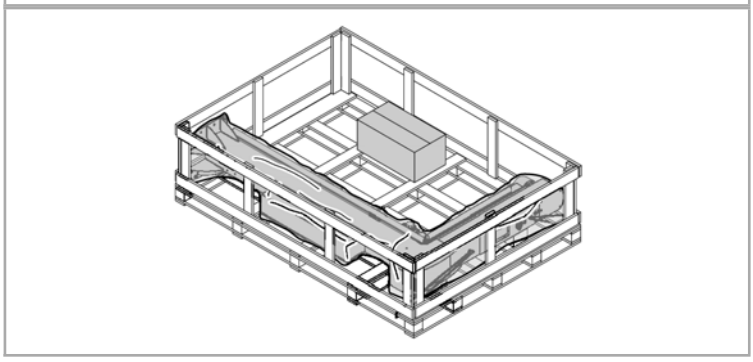
Package in crate



Cardboard box packaging



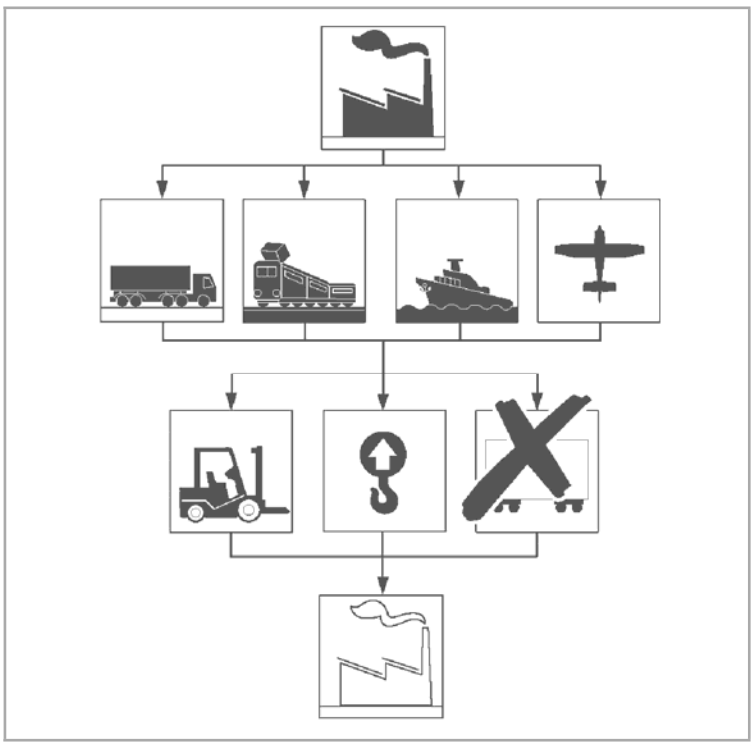
Package in cage



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

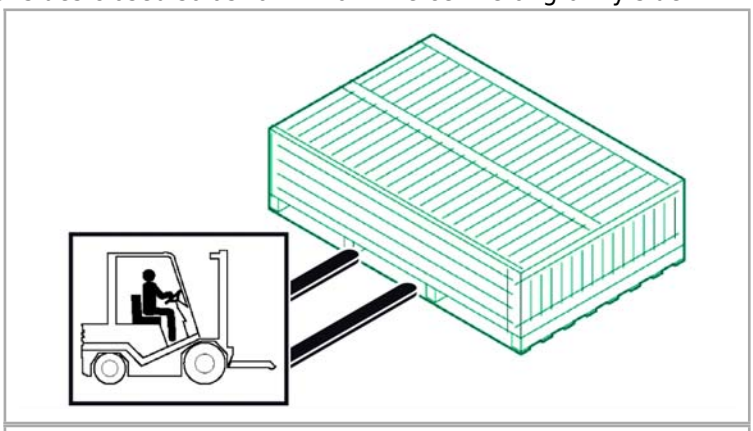
For further transportation, recreate the initial packaging conditions for transport and handling.
The packaged machine and its disassembled parts can be handled with a lifting device with forks or hook with adequate load capacity.
Position a lifting device as shown in the figure and in chapter “Machine Installation”.

Caution - Warning

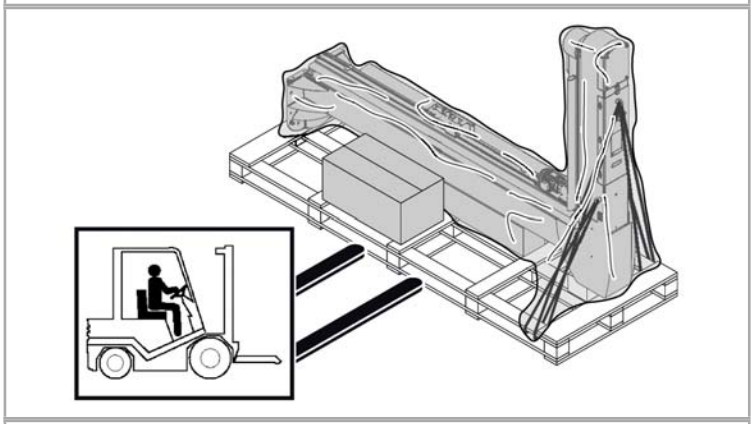
Before lifting the machine, check for centering position of the load.

The housing, the cage and the box have two pallet sides closed so as to lift from the centre of gravity side.

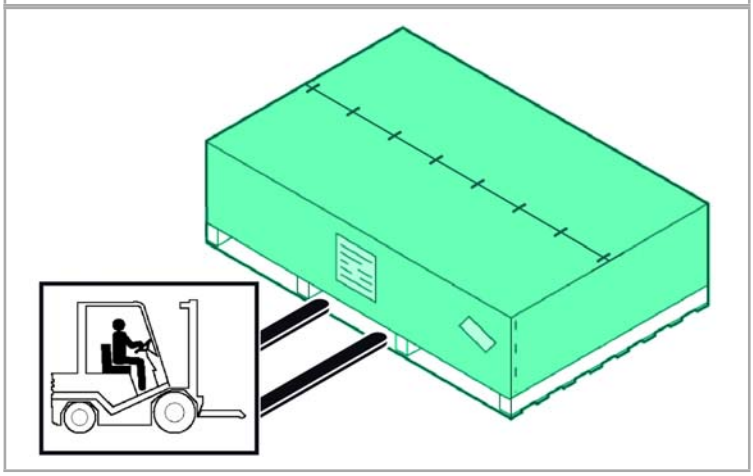
Package in crate



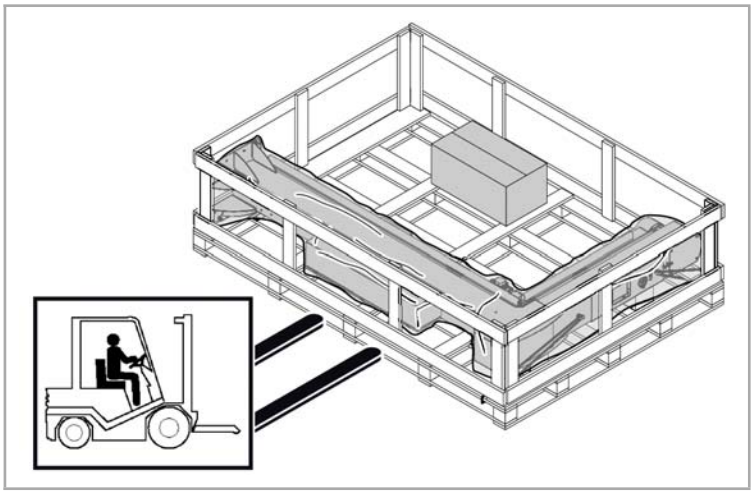
Package on pallet



Cardboard box packaging



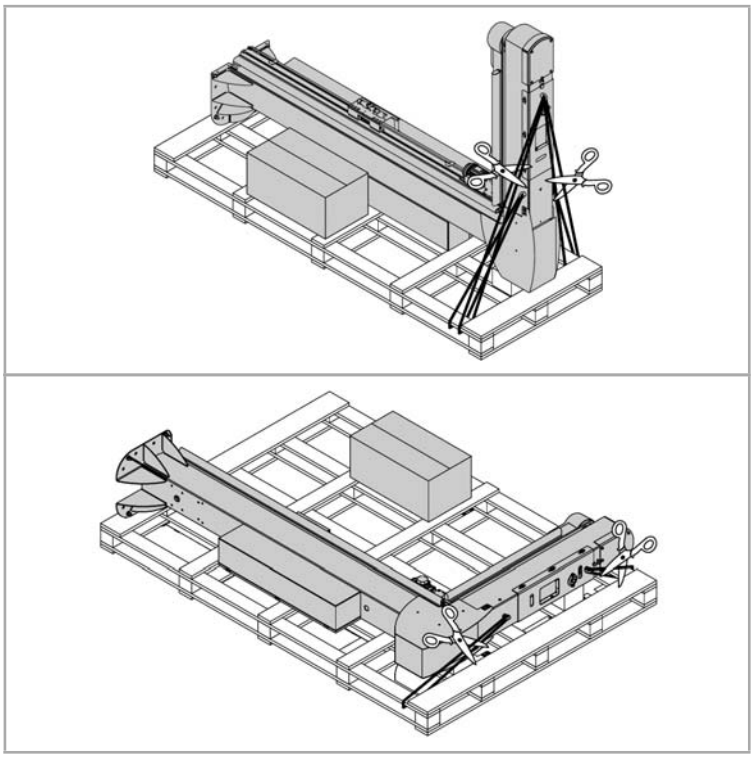
Package in cage



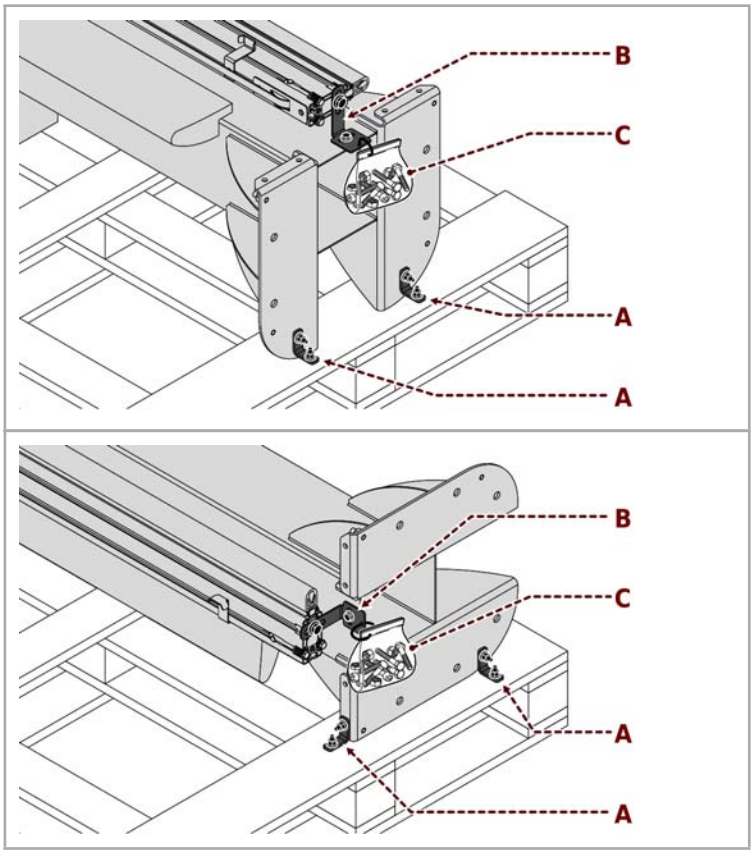
4.4. MACHINE INSTALLATION

Following are the steps to be taken to install dismantled parts.

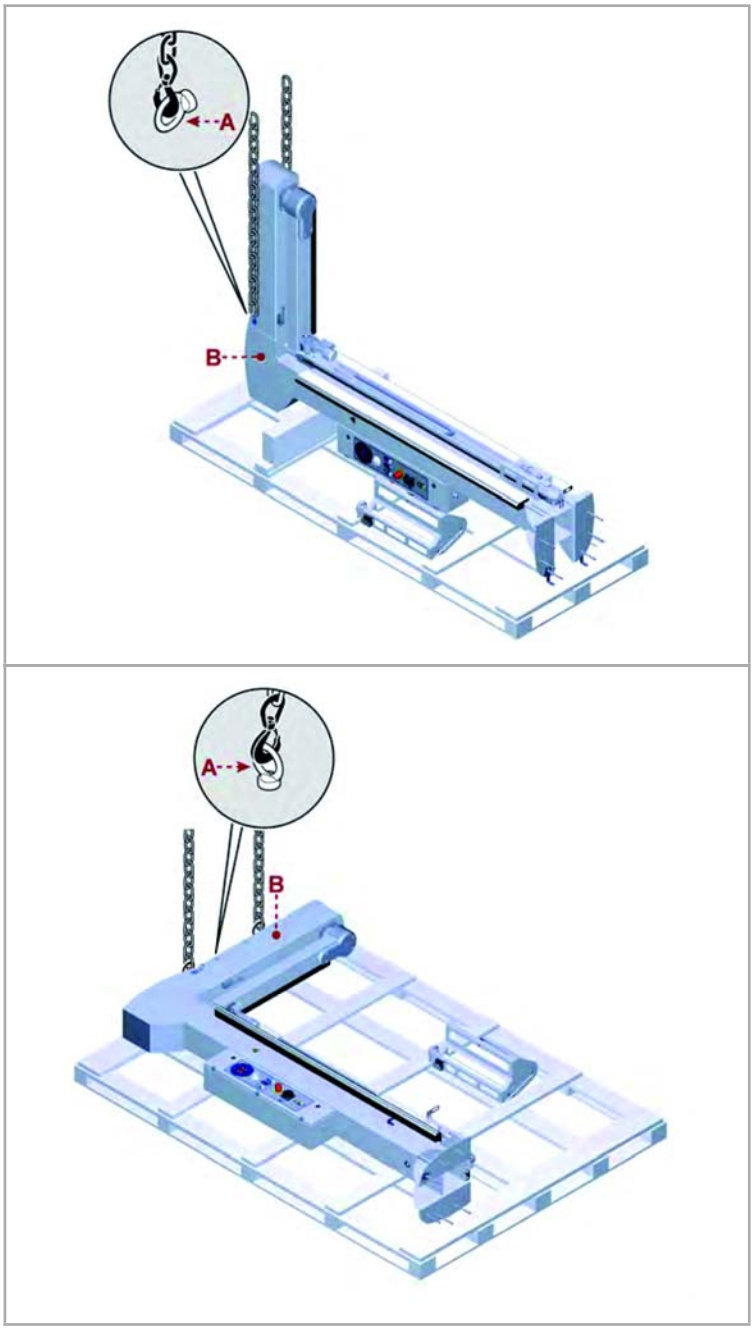
1. Cut the machine locking straps to the pallet.



2. Remove the locking brackets **(A-B)** used during shipping.
The bag **(C)** contains the fixings elements for the fastening of the column to the ground.



3. Connect lifting device to eyebolt **(A)** and lift column **(B)**.



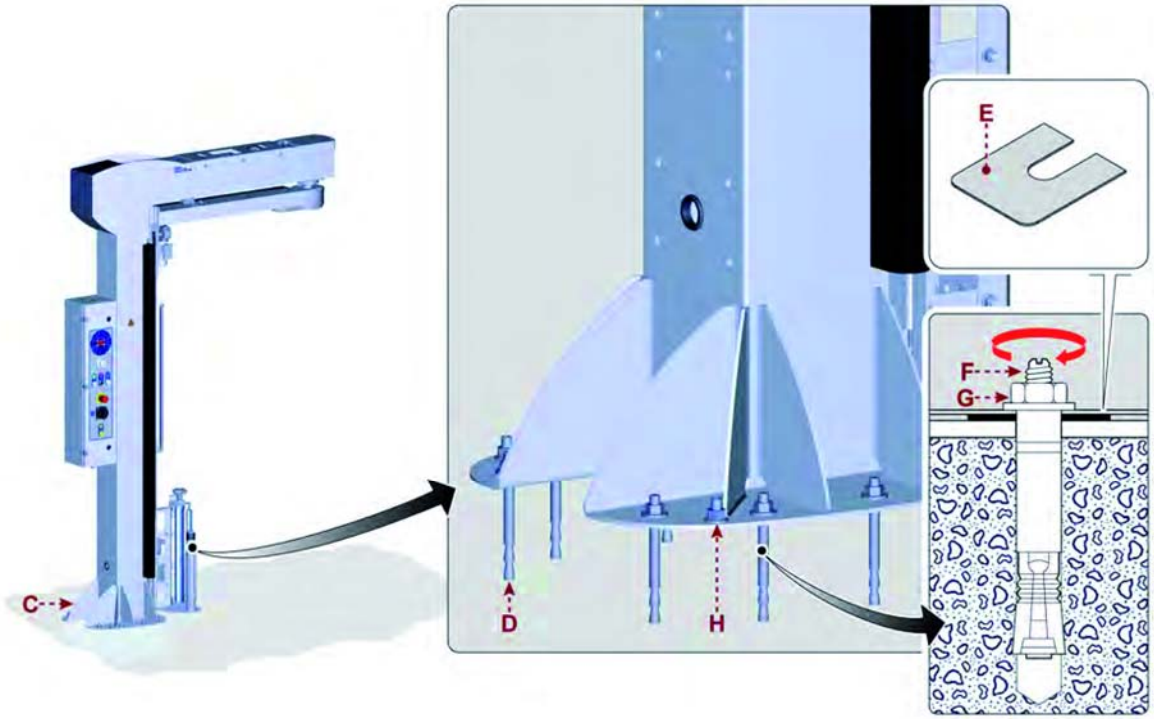
Important

Hook the machine to two points to prevent it from capsizing.

Caution - Warning

Lift slowly and handle with the utmost caution in order to avoid oscillations.

4. Position the column base on the installation point.
Place the machine to the floor and keep it hooked to the lifting device.

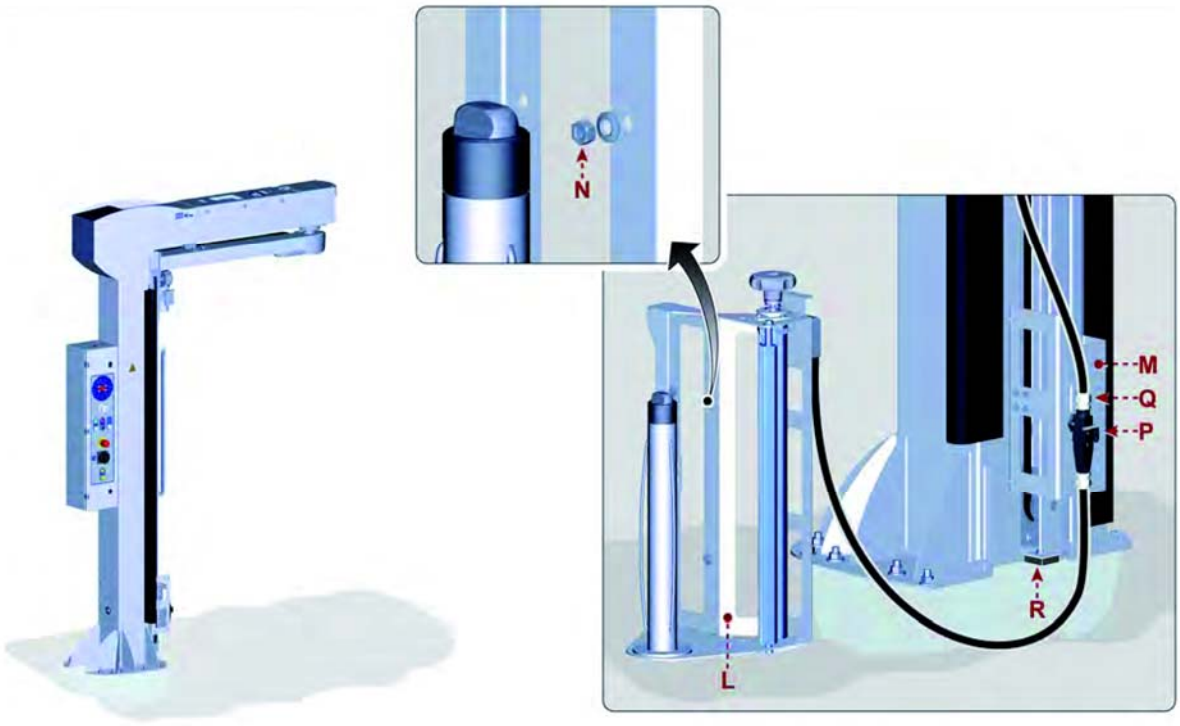


5. Carry out the drilling **(ø 12 x 110 mm)** on the floor at the fastening bores of the base **(C)**.
Clean thoroughly the bores to remove the material residues.
6. Insert the Dolly blocks **(D)** supplied.
7. Place the machine on the ground.
8. Insert the nuts **(G)** and the related washers of each threaded bar **(F)**.
9. Tighten the two nuts of the threaded bars positioned at the ends of one of the two diagonals.
10. Level the machine using the adjusting screws **(H)**.
If necessary, slacken slightly the nuts **(G)**.
11. Insert the additional adjusting shims **(E)** at the threaded rods **(F)**, to eliminate the gap between frame and floor, and avoid deforming the base of the column during final tightening.
12. Unscrew the screws **(H)** and remove them.
13. Tighten completely the nuts **(G)** in crossed order or alternately (Tightening torque).

Important

After the first operation period (about one week), ensure the machine fastening has remained unchanged.

14. Remove the lifting device.



15. Install the reel carriage **(L)** and fix it to the support **(M)** using the nuts **(N)** and the related washers.
16. Connect the connector **(P)** to the socket **(Q)**.

Danger - Warning

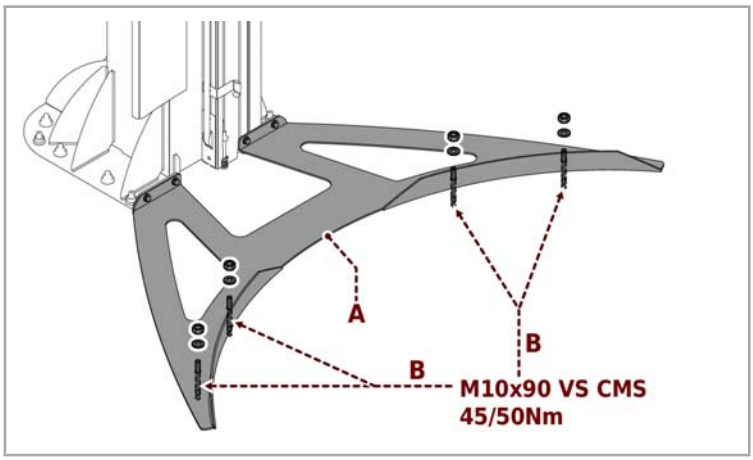
Remove the fastening elements **(R)** used during shipping.

4.4.1.INSTALLATION OF THE FRONT STOPPER (OPTIONAL)

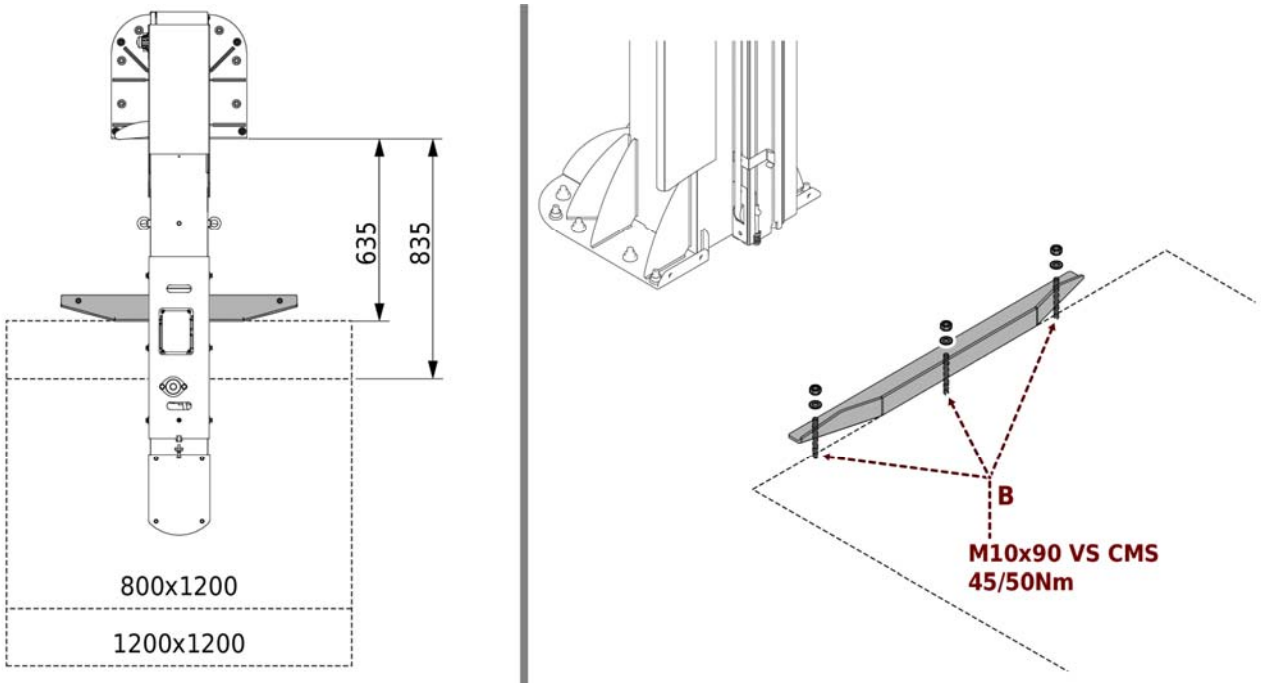
- Fasten the stopper **(A)** to the column base with the screws supplied.
- Carry out the drilling **(ø10 x 70mm)** on the floor at the fastening bores of the stopper.

  Clean thoroughly the bores to remove the material residues.

- Secure the stopper to the floor using the Dolly blocks **(B) — M10 x 90**.

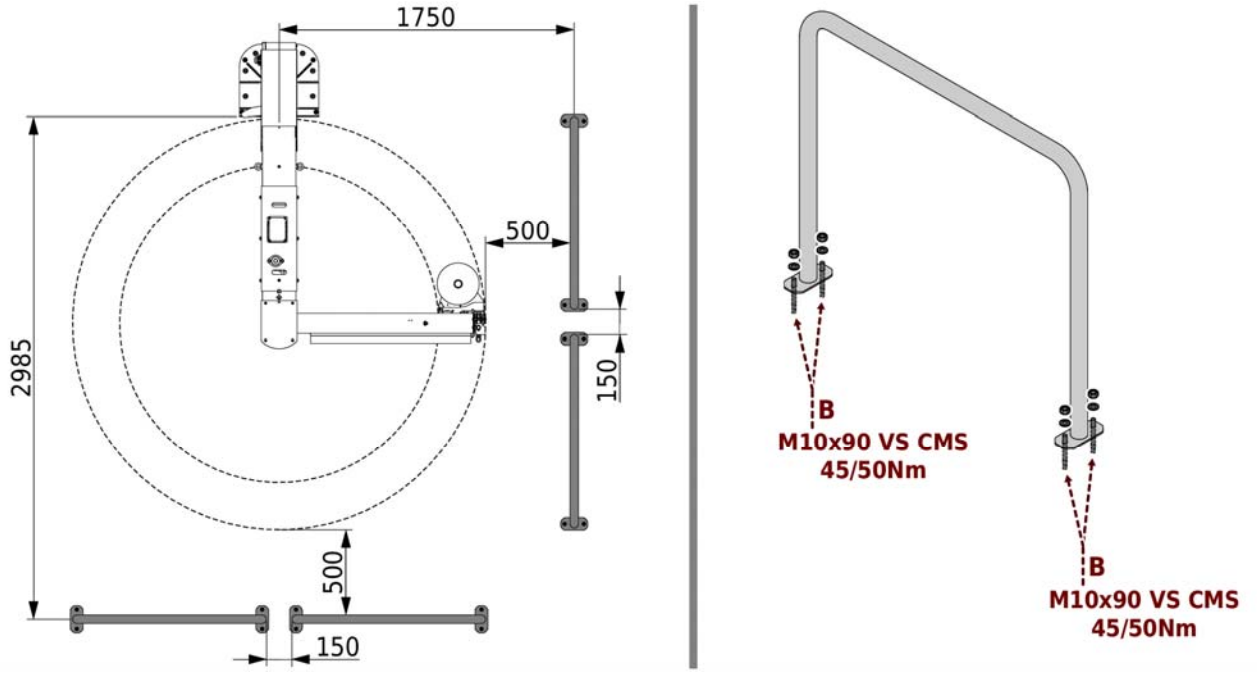


4.4.2.INSTALLATION OF THE LONGITUDINAL STOPPER (OPTIONAL)



- Position the stopper according to the diagram given.
- Carry out the drilling **(ø10 x 70mm)** on the floor at the fastening bores of the stopper.
  Clean thoroughly the bores to remove the material residues.
- Secure the stopper to the floor using the Dolly blocks **(B) — M10 x 90**.

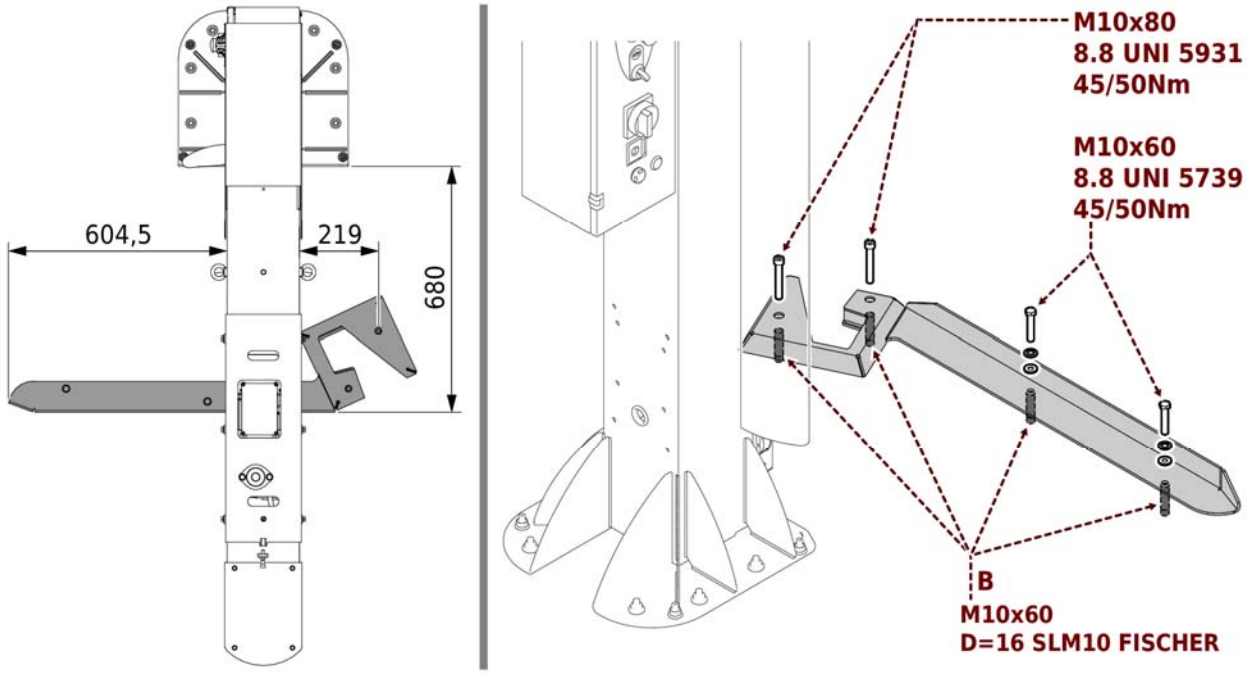
4.4.3.WORK AREA LIMIT BARRIER INSTALLATION (OPTIONAL)



- Identify the installation position of the barrier **(A)**.
- Carry out the drilling **(ø10 x 70mm)** on the floor at the fastening bores of the barrier.
  Clean thoroughly the bores to remove the material residues.

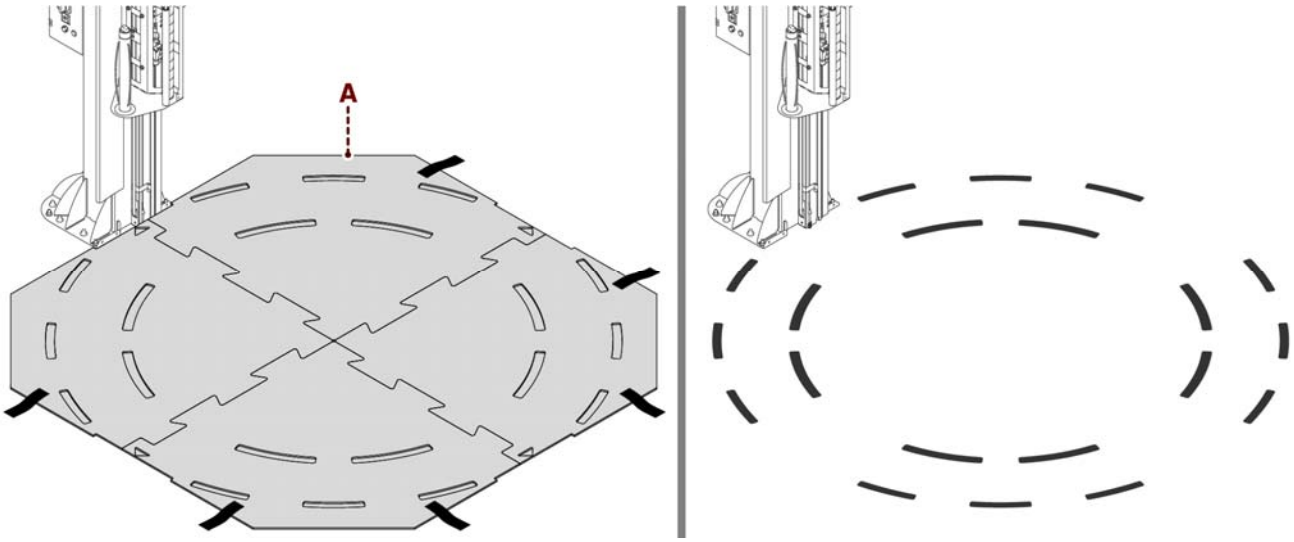
– Secure the stopper to the floor using the Dolly blocks **(B) — M10 x 90**.

4.4.4.INSTALLATION OF THE STOPPER FOR ROLL CONTAINER (OPTIONAL)



– Position the stopper according to the diagram given.
– Carry out the drilling **(ø16 x70mm)** on the floor at the fastening bores of the stopper.
Clean thoroughly the bores to remove the material residues.
– Secure the stopper to the floor using the Dolly blocks **(B) — M10 x 60**.

4.4.5.POSITIONING THE TEMPLATE FOR WORK AREA DRAWING (OPTIONAL)



– Install the template **(A)** by following the joints and place it on the column, as shown.

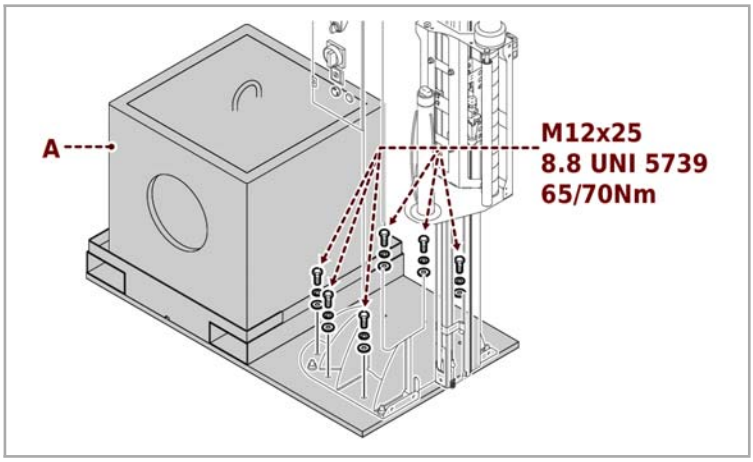
Important

Perform a test rotation at low speed to check the proper alignment of the template to the arm.

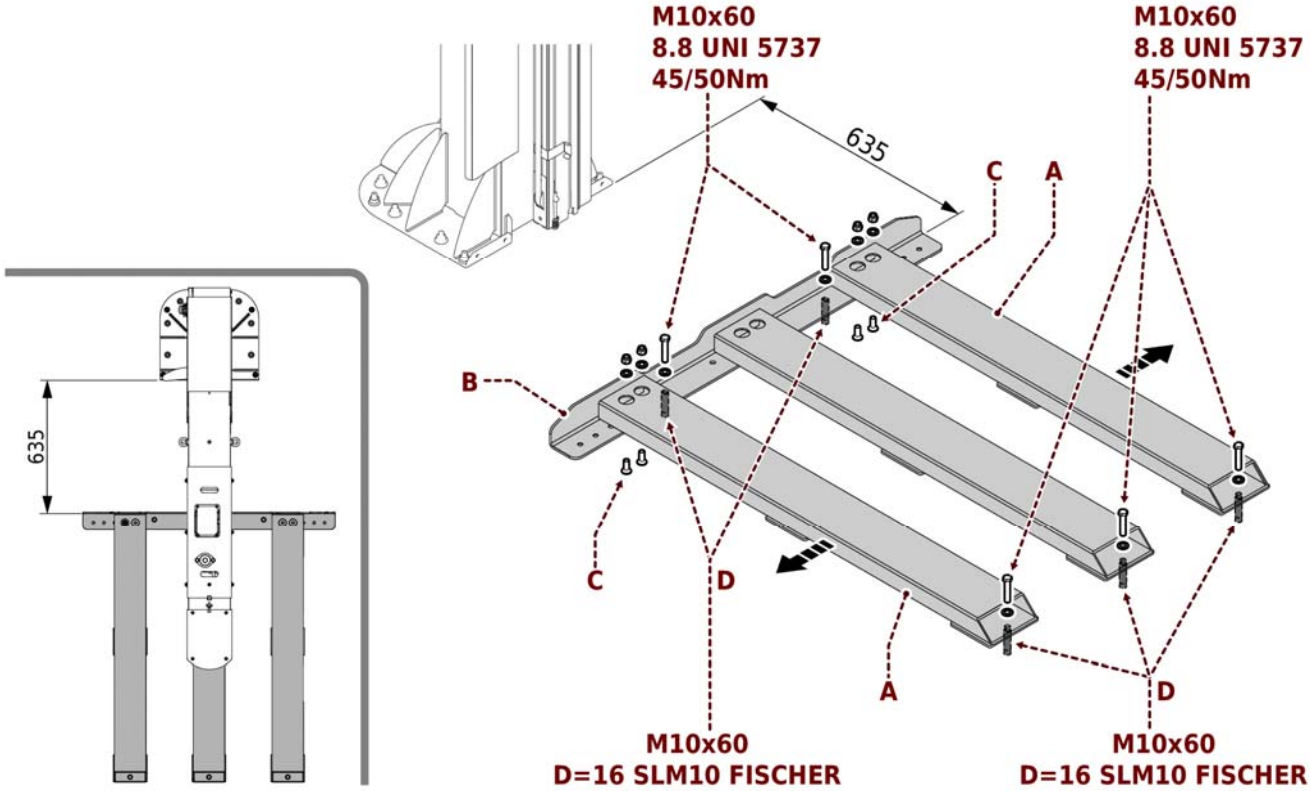
- Lock it to the ground using rubber tape or similar.
- Perform the drawing using the can of varnish supplied.

4.4.6.INSTALLATION OF THE MOBILE BASE (OPTIONAL)

- Consult the chapter "Installation of the machine".
- Keep the column hooked to the lifting device:
- Fasten the column to the base **(A)** using the screws and washers supplied **(12,0 UNI 1751)(12,5 x 24,0 x 2,5)** and tighten by applying a tightening torque equal to **65/70 Nm**.
- Remove the lifting device.



4.4.7.INSTALLATION OF THE PALLET LIFTING FRAME (OPTIONAL)



Important

Install the spars **(A)** on the basis of the pallet type.

- Assemble the frame on the basis of the pallet dimensions: fasten the spars **(A)** to the front bracket **(B)** using the screws **(C)**.
- Position the frame according to the diagram given.
- Carry out the drilling **(ø16 x 70mm)** on the floor at the fastening bores of the frame.
  Clean thoroughly the bores to remove the material residues.

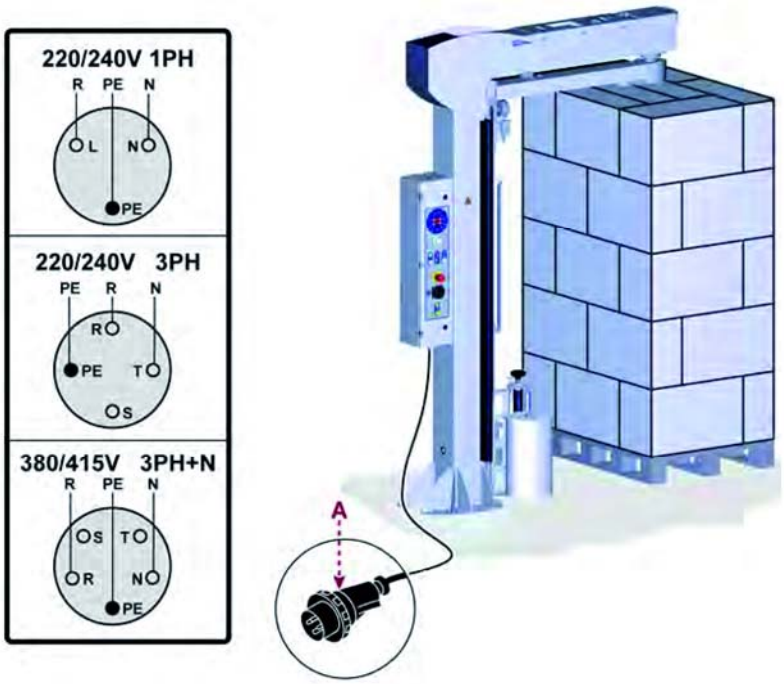
– Secure the frame to the floor using the Dolly blocks **(D)**.

4.5. 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.

4.6. 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 the mains switch to **0 (OFF)**.
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. INFORMATION ON ADJUSTMENTS

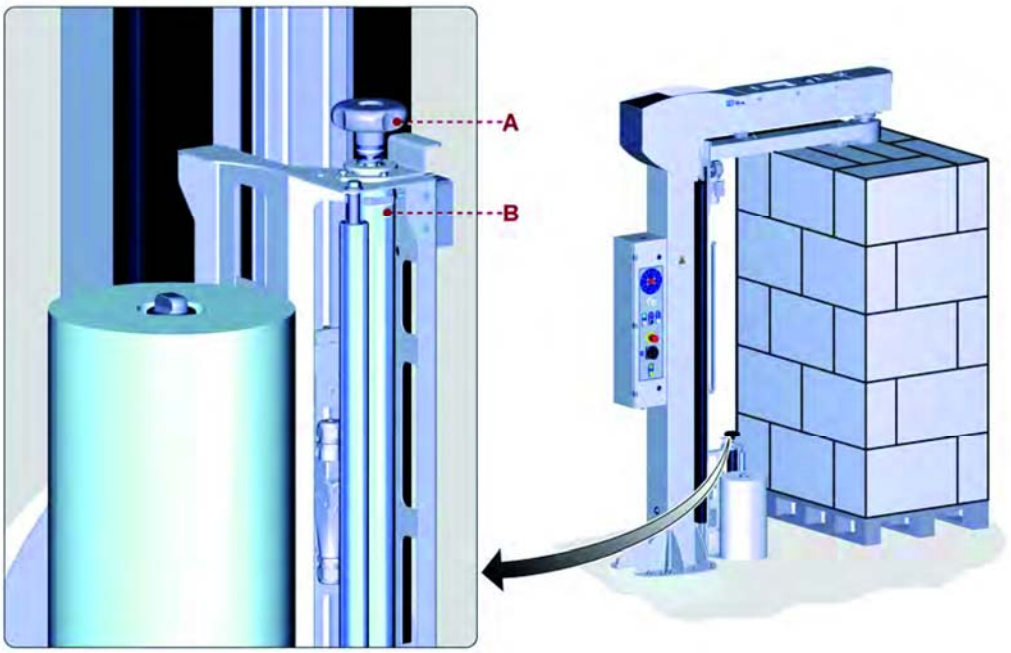
5.1. RECOMMENDATIONS FOR ADJUSTMENTS

- **Before performing any operation, the authorised operator must make sure that he/she understood the "Instructions for use".**
- **Before carrying out any intervention, activate all the safety de-vices provided, stop the machine and assess if any residual energy is still present.**
- **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.**

5.2. "PULL COATING" ADJUSTMENT

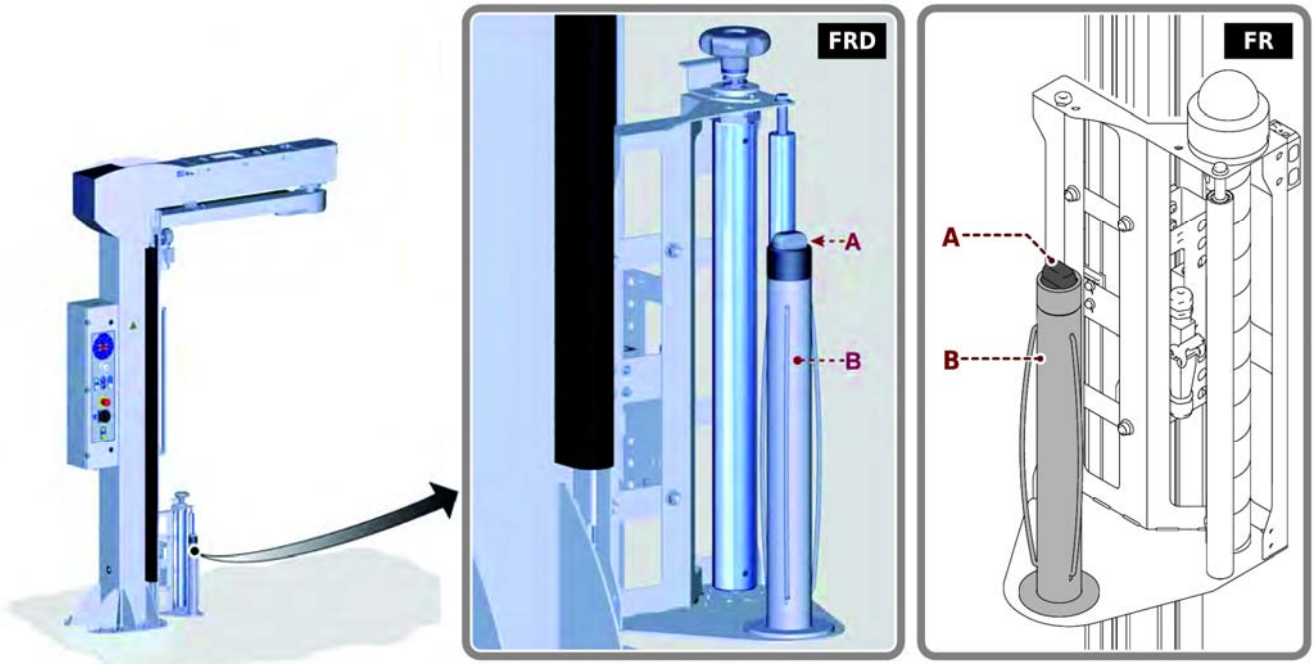
Proceed as indicated.

5.2.1."FRD" TYPE REEL CARRIAGES



- Adjust hand wheel **(A)** to regulatethe braking effect of the pre-stretchroller **(B)** that determines film lengthening.
  - Clockwise: the value increases.
  - Counter-clockwise: the value decreases.

5.3. ADJUSTING THE REEL BRAKE

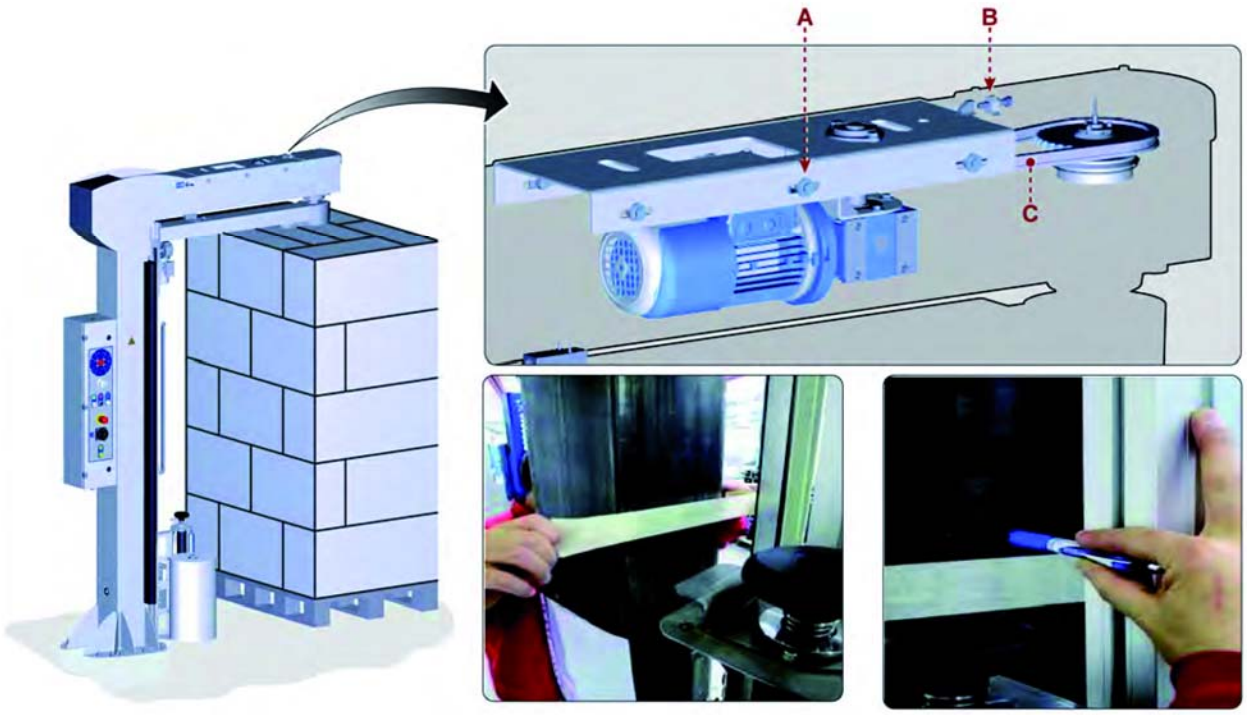


– Act on the knob **(A)** to adjust the braking action of the spool carriage roller **(B)** which determines the coating strain.
  – Clockwise: the value increases.
  – Counter-clockwise: the value decreases.

5.4. ADJUSTING THE STRAIN OF THE WRAPPING ARM TRANSMISSION BELT

The intervention is necessary to limit the arm movement with the transmission braked.

The illustration shows the points of intervention and the description indicates the procedures to follow.



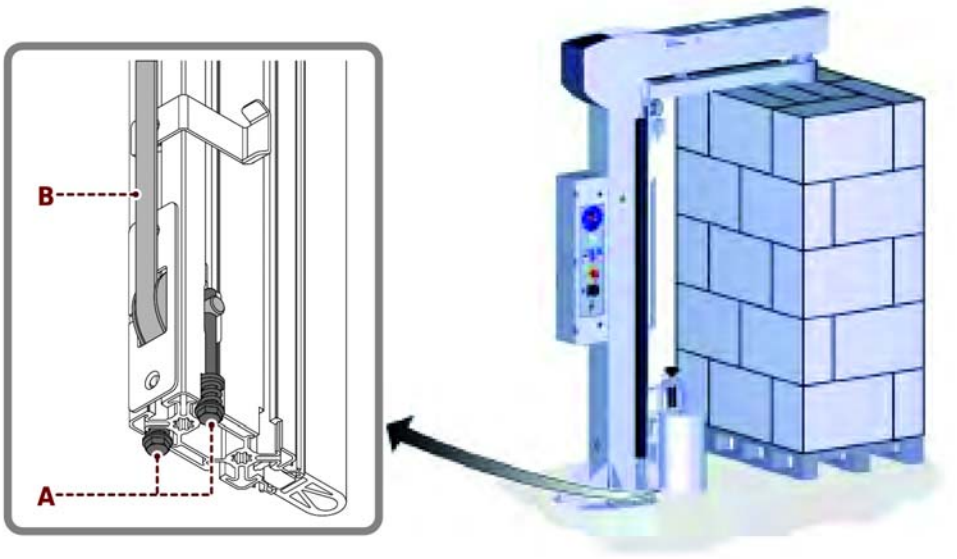
1. Stop the machine in safety conditions.
2. Apply adhesive tape on the column.
3. Position the marker, pull the arm (counter-clockwise) at the end of its stroke and mark the position on the adhesive tape.
4. Push the arm (clockwise) at the end of its stroke and mark the position on the adhesive tape.
   The distance between marks has to be 45 mm (±15).
   Otherwise adjust the chain tension.
5. Slacken slightly the screws **(A)**.
6. Act on the screw **(B)** to adjust the chain strain **(C)**.
   – Clockwise: the value decreases.
   – Counter-clockwise: the value increases.
7. Tighten screws **(A)**.
8. Repeat inspection to ensure the intervention was correct.
   Otherwise repeat the intervention.

Important

The maintenance interventions in the areas that are not easily accessible or dangerous must be carried out after having ensured the necessary conditions.

5.5. ADJUSTING THE REEL CARRIAGE BELT

The illustration shows the points of intervention and the description indicates the procedures to follow.



1. Lift the spool carriage (with machine operation set to "manual mode") up to "top" end stroke.
2. Stop the machine in safety conditions.
3. Act on the screws **(A)** to adjust the **(B)** belt strain.

Important

The proper strain is obtained when the springs are compressed until reaching the length **18 mm**.
Make sure both springs have the same length.

4. Lower the reel carriage down to the limit switch.

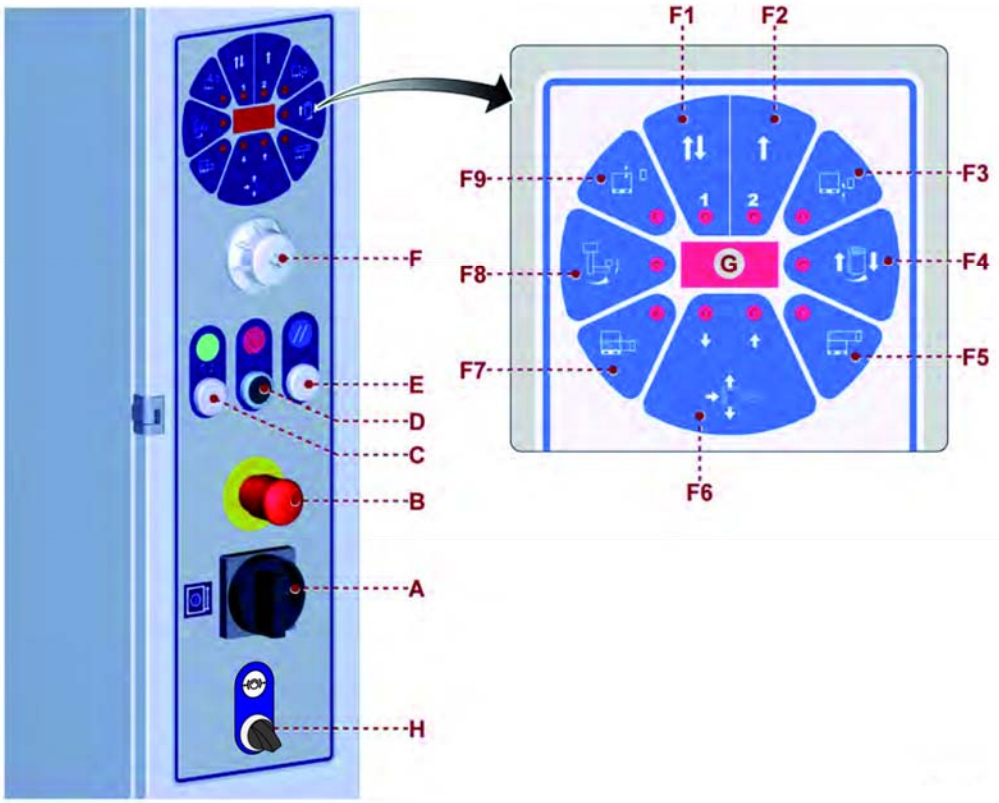
6. ABOUT THE USE

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 (ECOWRAP)

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



A) Main disconnecting switch (lockable): used to activate and deactivate the machine's electrical power supply.

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) "Start cycle" push-button: it is used to start the automatic wrapping cycle.

D) "Stop cycle" button: it is used to stop the automatic wrapping cycle.

E) "Reset" push-button: it is used to reset the machine before restarting after an emergency stop or to restart it after stopping with power supply cut-off.

F) Multi-function selector: used to activate and programme the machine functions.
Turn the selector (clockwise or anti-clockwise) and release it when the led of the function concerned comes on.
To display and/or programme the functions, turn or press the multi-function selector.

"Type of wrapping" function

– **F1** "Double cycle" function: used to select the double wrapping cycle.
The reel carriage moves off from the bottom of the pallet and stops when it gets to the top, and then comes back down to the bottom of the pallet again, wrapping the load twice in doing so.
– **F2** Function "Cycle **2**": the function can be configured in **4** different wrapping cycles by means of the internal parameter **P2**.

P2=0 "Simple cycle" function: used to select the simple wrapping cycle.
The spool carriage starts from the bottom of the pallet and stops at the top after having accomplished the preset number of rounds at the bottom and top of the pallet.
At the end of the wrapping cycle the rotating arm back in phase and the reel carriage lowers to the position set (an intermittent buzz will be heard).

P2=1 Function "simple wrapping with altimeter": used to select a simple wrapping cycle using the photocell.
The reel carriage starts from the pallet base and performs low wrapping cycles and stops at the position set through the parameter **F9**, performing high wrapping cycles.
The position **F9** is expressed in **cm**.
At the end of the wrapping cycle the rotating arm back in phase and the reel carriage lowers to the position set (an intermittent buzz will be heard).
Use this cycle for roll-container wrapping.

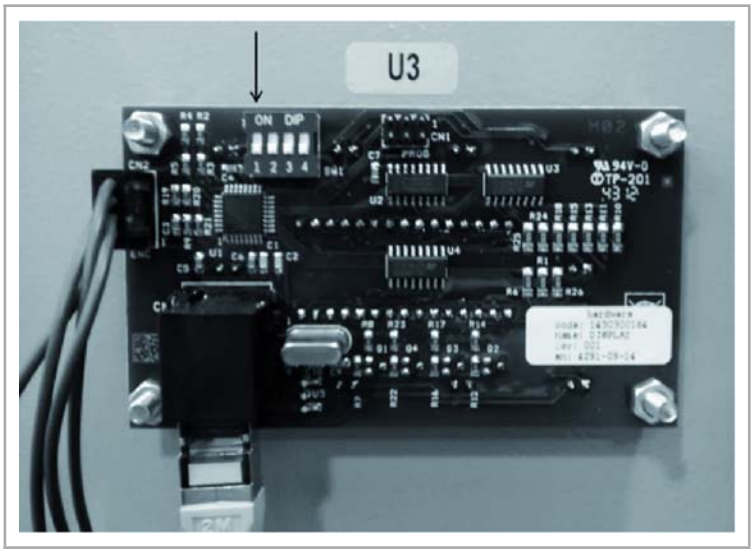
P2=2 Function "double wrapping with altimeter": used to select a double wrapping cycle without using the photocell.
The reel carriage starts from the pallet base, lifts to the the position set through the parameter **F9**, then descents to the base and performs a double wrapping of the load.
The position **F9** is expressed in **cm**.
Use this cycle for roll-container wrapping.

P2=3 "Double cycle" function: used to select the double wrapping cycle.
The reel carriage moves off from the bottom of the pallet and stops when it gets to the top, and then comes back down to the bottom of the pallet again, wrapping the load twice in doing so.
This programme is the same as programme **F1**.
This programme can be set with different parameters with respect to the programme **F1**, to wrap the pallets that require different wrapping.

To modify the parameter P2 "Programme type 2"

– To modify the programme type **2**, modify the parameter **P2** according to the following procedure:

1. Turn the machine off and wait for all the card led tu turn off too.
2. Open the electrical panel hatch.
3. Move up the switch n°**1** indicated in the figure below.
4. Switch the machine on.
5. Press jog until the parameter **P2** blinks.
6. Rotate the “JOG” until the value required is displayed.
7. Press jog to confirm the value set.
8. Turn the machine off and wait for all the card led tu turn off too.
9. Reposition the switch n°**1** in low position.
10. Start back the machine.



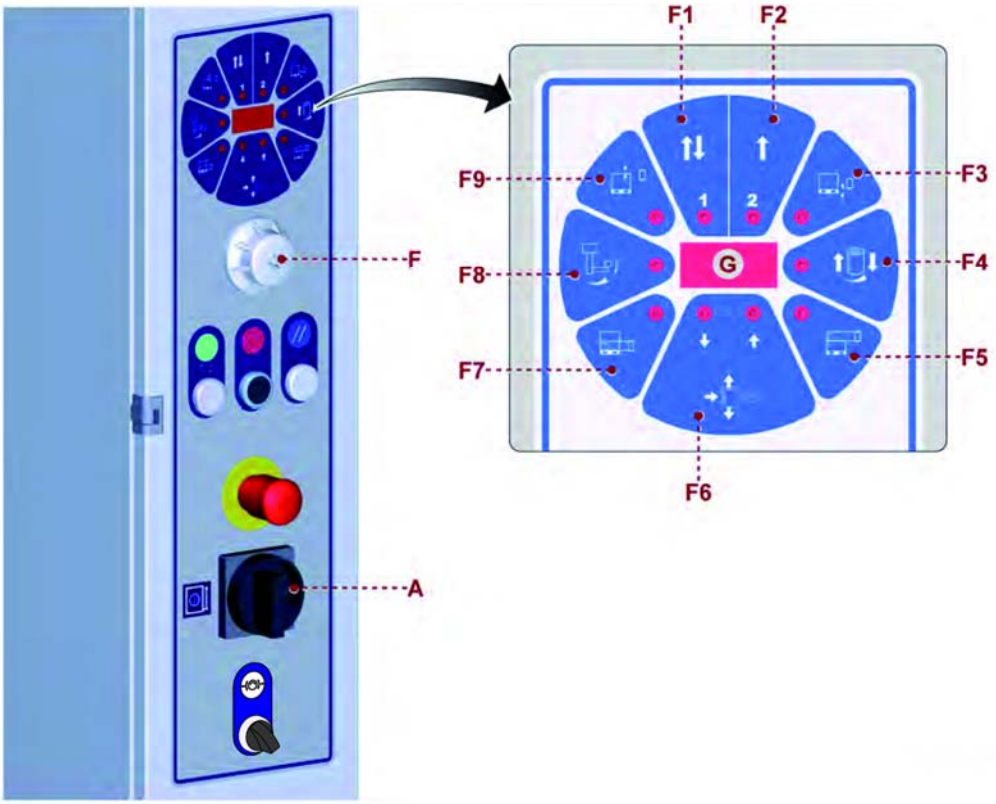
The programme **2** has become the required programme.

"Production parameters"and "manual carriage movement" functions

- **F3** Function "Carriage parking": used to program the distance between the stop position of reel carriage and the floor.
- **F4** "Carriage raising/lowering speed" function: used to regulate the vertical movement speed of the reel-holder carriage.
- **F5** "Upper strappings" function: used to programme the number of strappings in the upper part of the pallet.
- **F6** "Carriage raising/lowering" function: used to activate the vertical movement of the reel-holder carriage in manual mode.
- **F7** "Lower strapping" function: used to programme the number of strappings in the lower part of the pallet.
- **F8** Function "Arm rotation speed": used to set the wrapping speed.
- **F9** Function "Photocell delay": used to program the time between the photocell detection (pallet end) and the reel carriage lifting stop.

G) Digital display: displays the work parameters and the alarm initials.
H) Selector: rotate the selector to unlock the rotating arm and handle it manually (See "Description of safety devices").

6.3. HOW TO USE THE MULTI-FUNCTION SELECTOR (ECOWRAP)



To select the wrapping cycle

1. Turn the selector to one of the functions **(F1-F2)**.
2. Press the selector.
   The LED starts to flash.
3. Press the selector to enable the selected cycle.
   The LED stays on with a fixed light.
   On the display **(G)** the identification number appears.
   The machine is ready to start the cycle.

To modify the production parameters

1. Turn the selector to one of the functions **(F3-F4-F5-F7-F8-F9)**.
2. Press the selector.
   The LED starts to flash.
   On the display **(G)** the set value appears.
3. Turn the selector to change the value.
4. Press the selector to memorise the modification.
   The LED stays on with a fixed light.

To move the reel-holder carriage manually

1. Rotate the selector on function **(F6)**.
2. Press the selector.
   The LEDs start to flash.
3. Turn the impulse selector to move the carriage.
   – Clockwise: the carriage goes up.
   – Anti-clockwise: the carriage lowers.
4. Press the selector to exit the function.
   The LEDs stay on with a fixed light.

To carry out multiple reinforcement wrappings

– Press and hold the selector (for at least **2** seconds), to stop the reel carriage movement and obtain a reinforcing wrapping.
To carry out several reinforcement wrappings at the same point, lightly touch the selector (maximum 5).
The carriage stops at the end of the wrappings that have been set.

To inhibit or enable changes to the parameters

1. Rotate the selector on function **(F5)**.
2. Press shortly the selector (About **4** seconds).
On the display the message appears that identifies the state of the function.
– **"LOC"** Changing values inhibited.
– **"FrE"** Changing values enabled.
3. Rotate the selector (clockwise) to turn on in sequence the led **(F1-F2-F3-F4-F5)**.
4. Rotate the selector (counter-clockwise) to turn off in sequence the led **(F5-F4-F3-F2-F1)**.
5. Rotate the selector (clockwise) to turn on in sequence the led **(F1-F2-F3-F4-F5)**.
6. Press the selector to modify the function.
If the control activation sequence is not followed, the procedure stops.

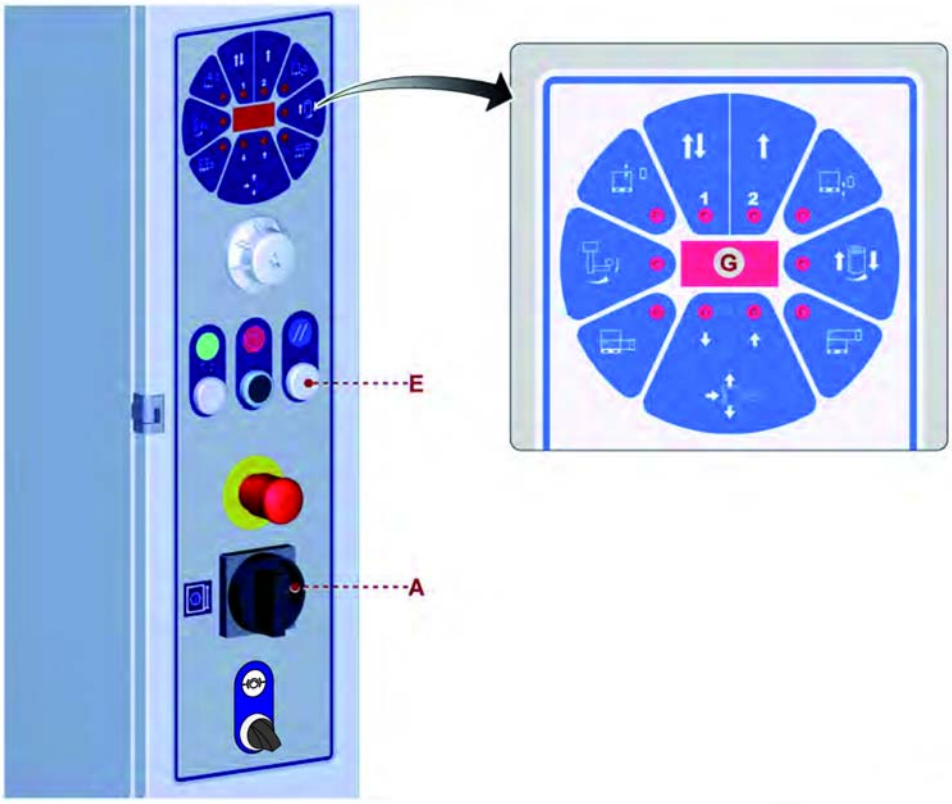
To display the production data

1. Enable the main disconnecting switch **(A)** and simultaneously press the selector **(F)**.

On the display the message appears.

– **"d1"** cycle partial counter.
To reset, press the selector for a short time (About 3 seconds).
– **"d2"** total cycle counter (thousands) **(1xxx÷999xxx)**
– **"d3"** total cycle counter (Unit) **(0÷999)**
– **"d4"** Bootloader programme version
– **"d5"** Supply voltage
– **"d6"** Board temperature
– **"d7"** Photocell delay

6.4. SWITCHING THE MACHINE ON AND OFF (ECOWRAP)



For this operation proceed in the following way.

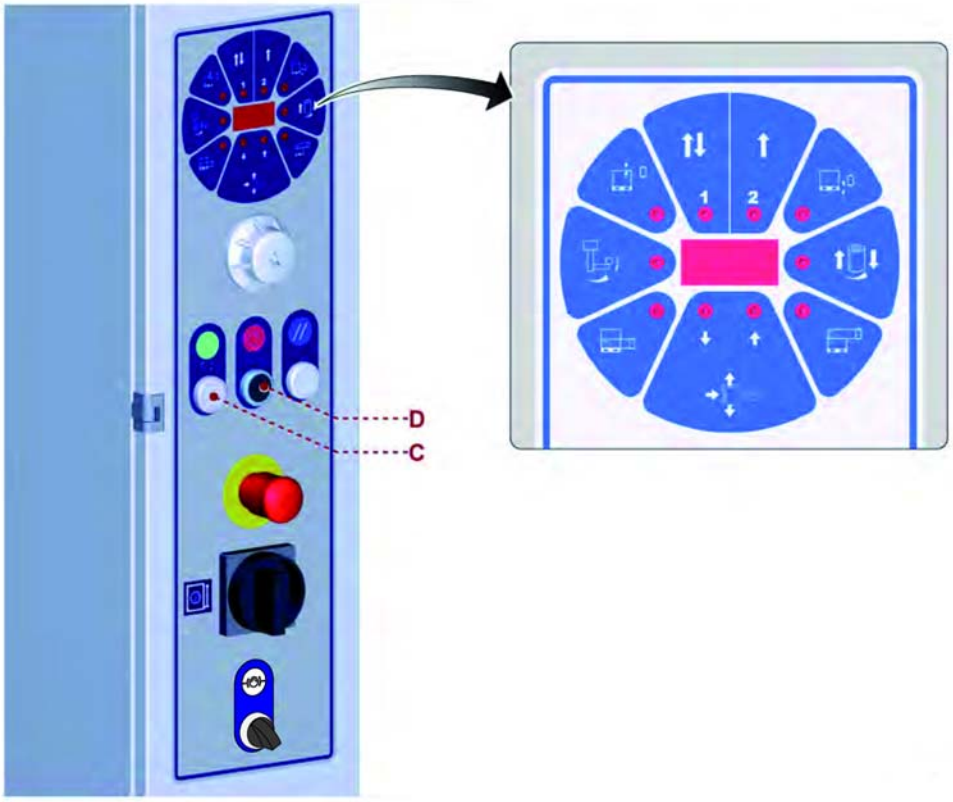
1. Turn the main switch **(A)** on **"I"** (on) to supply electrical power to the machine.
The LEDs come on to signal that the system is carrying out a check-up of the operation of the machine and the display **(G)** displays for a few seconds the software version installed.
At the end of the operating check-up, on the display the message **"rES"** appears.

2. ≡ TRAD.MANCANTE ≡ Premere il pulsante “Reset AAA” **(E)**.
On the display **(G)** the identification number of the programmed wrapping cycle appears.

3. Perform the cycle start operations (see “Starting and stopping the cycle”).

Turn the main switch (A) to "0" (OFF) to turn the machine off.

6.5. STARTING AND STOPPING THE CYCLE (ECOWRAP)



Proceed as indicated.

1. Get closer to the wrapping area and place the pallet on the marked area.

2. Hook on the end piece of the coating to the pallet.

3. Set the desired wrapping mode..

For further details refer to the paragraph "Instructions for multifunction switch use".

Caution - Warning

Do not over stretch or pre-stretch the film and do not wrap with an excessive number of bindings in order to prevent damaging the packages and products contained inside.

4. Press the "Cycle start" push-button **(C)**.
The machine performs the wrapping process and automatically stops at the end of the cycle..

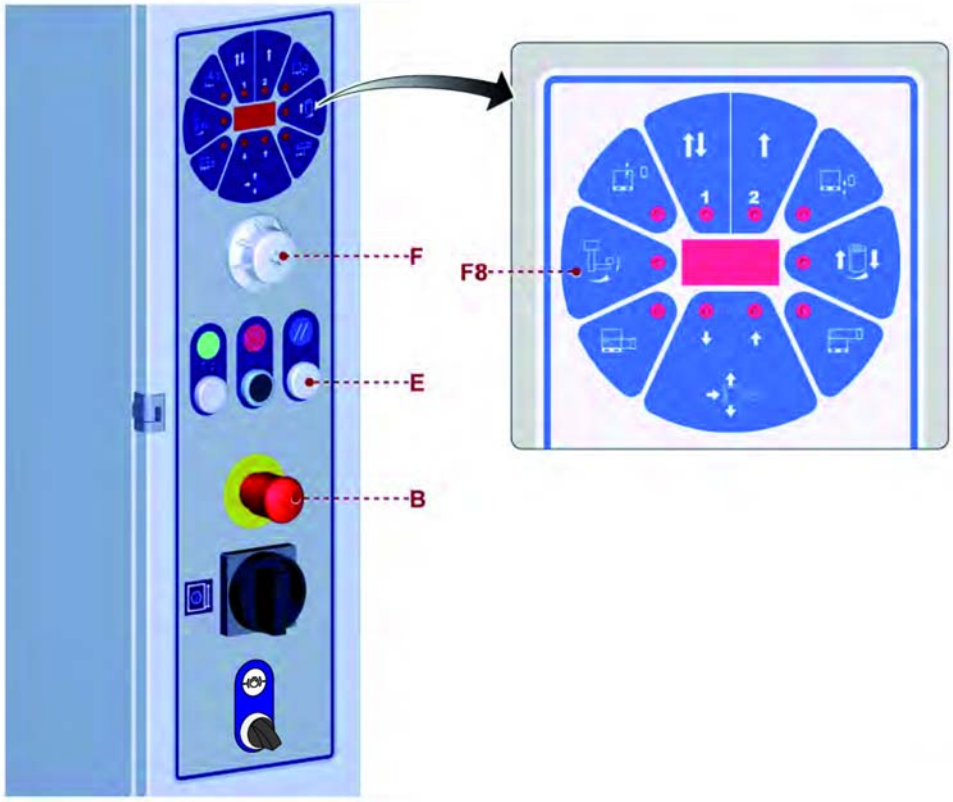
Important

To pause the cycle, press the "Stop cycle" **(D)** button.
Press the "start cycle" button **(C)** to restart.

5. Carry out the manual cutting of the coating.

6. Remove the pallet so as to position the following one.

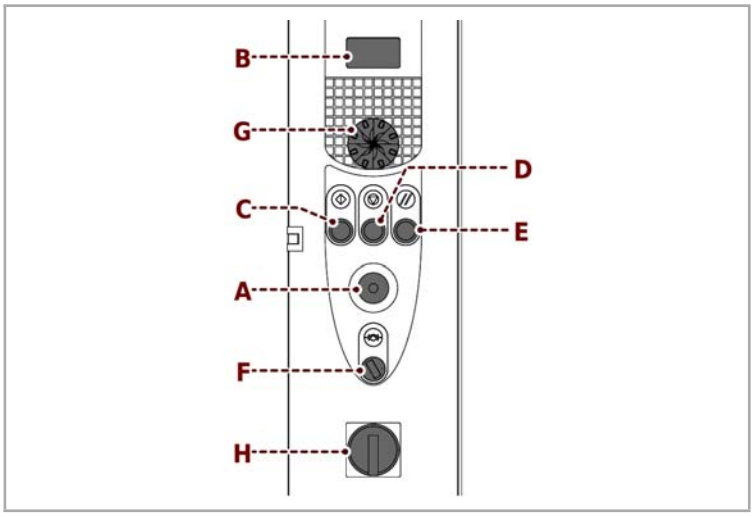
6.6. EMERGENCY STOP AND RESTART (ECOWRAP)



Proceed as indicated.

1. Press the machine emergency stop button **(B)** when there is imminent danger.
   Its functions are immediately stopped.
2. After having re-established the normal operating conditions, the pushbutton must be released to authorize the machinery to restart.
3. Press the “Reset” **(E)** button.
4. Rotate the selector **(F)** on function **(F8)**.
5. Press and hold the selector **(F)** bring the rotating arm in start cycle position.
6. Repeat all the automatic cycle start operations (see “Starting and stopping the cycle”).

6.7. CONTROL DESCRIPTION (MASTERWRAP)



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

A) 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".

B) User interface: it is used to set or modify the operating parameters of the machine.
The user interface is equipped with display and multi-function selector **(G)**.
For further details consult the paragraph "Description of the user interface".

C) "Start cycle" push-button: it is used to start the automatic wrapping cycle.

D) "Stop cycle" button: it is used to stop the automatic wrapping cycle.

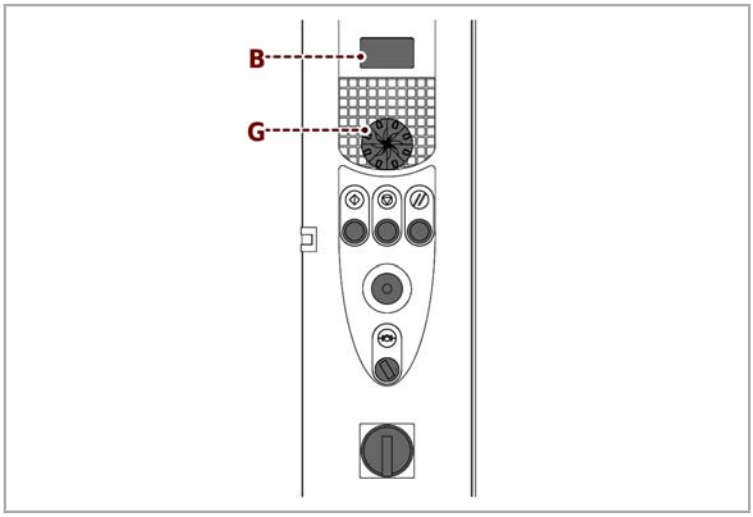
E) "Reset" push-button: it is used to reset the machine before restarting after an emergency stop or to restart it after stopping with power supply cut-off.

F) Jog mode selector: used to unblock the rotating arm and handle it manually (See "Description of safety devices").

G) Multi-function selector: used to activate and programme the machine functions.
Turn the selector (clockwise or anti-clockwise) and release it when the page or the relative function appears. Press to activate the selected function.

H) Master switch: to switch the electricity supply on and off.
- Pos. **"0"**: power deactivated
- Pos. **"I"**: power activated

6.8. DESCRIPTION OF THE USER INTERFACE



The user interface is equipped with a multi-function selector **(G)**, which is used to display and programme the machine functions, and the display **(B)**, which displays the recipes, parameters, etc.…
To display and/or programme the functions, turn or press the multi-function selector.
The functional logic diagrams illustrate the navigation modes.
In the illustration, alongside each display, there is the initials that indicate the activation mode.

- Initials **"R"**: turn the command to access the displays or to change the values.
  To change the values, press the control, turn it until the relevant value is displayed and press it to save.
- Initials **"P"**: press the command to activate the selected function.

6.8.1.HOMEPAGE

1.0 Homepage.

2.0 Recipe Selection.
2.1 Recipe **1**
2.2 Recipe **2**
2.3 Recipe **3**

3.0 Setting the rotation speed.
3.1 Display the speed of rotation.

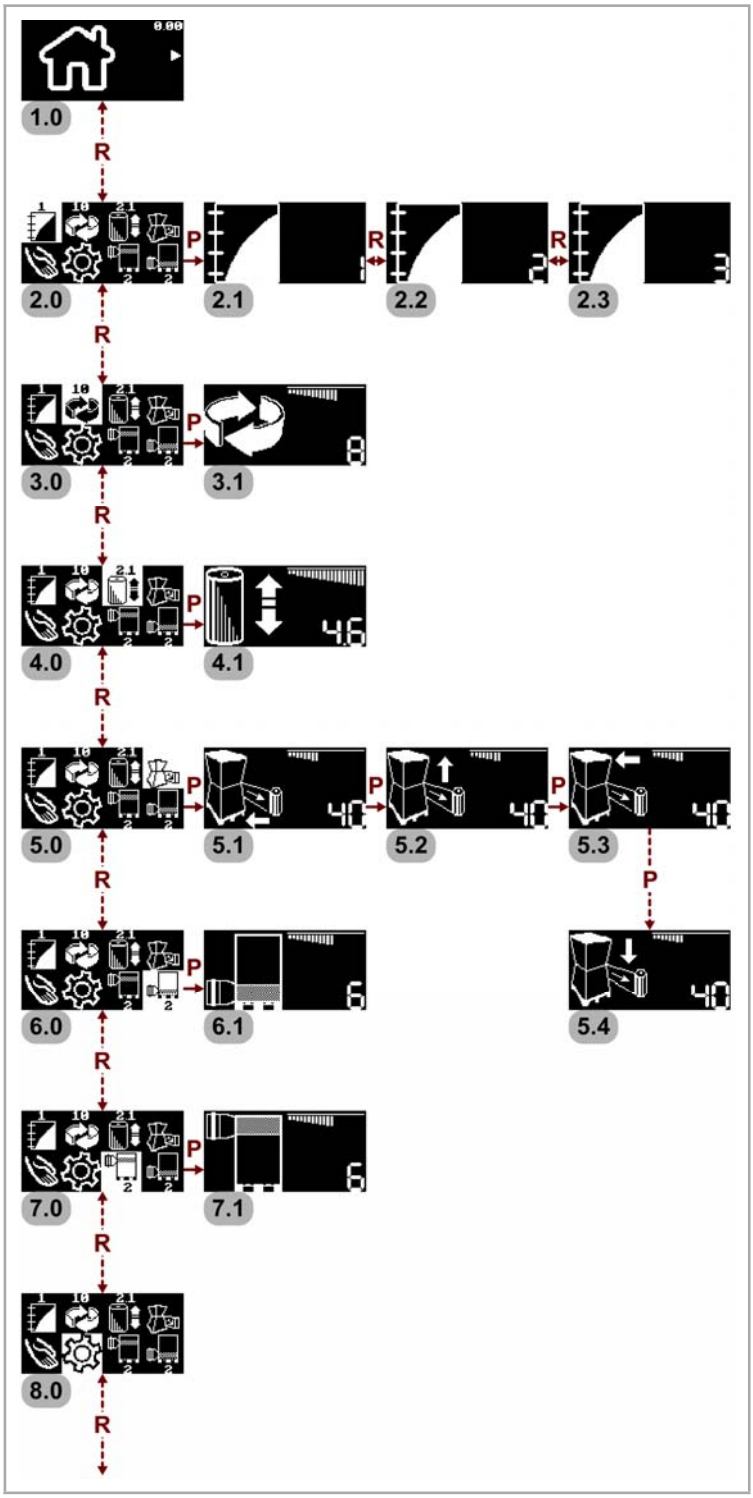
4.0 Setting the carriage speed.
4.1 View the carriage speed.

5.0 Coating pull settings – only version **FR**.
5.1 Pull Coating - down position **(%)** (by rotating the value changes).
5.2 Pull Coating - lift carriage **(%)**.
5.3 Pull Coating - up position **(%)**.
5.4 Pull Coating - lower carriage **(%)**.

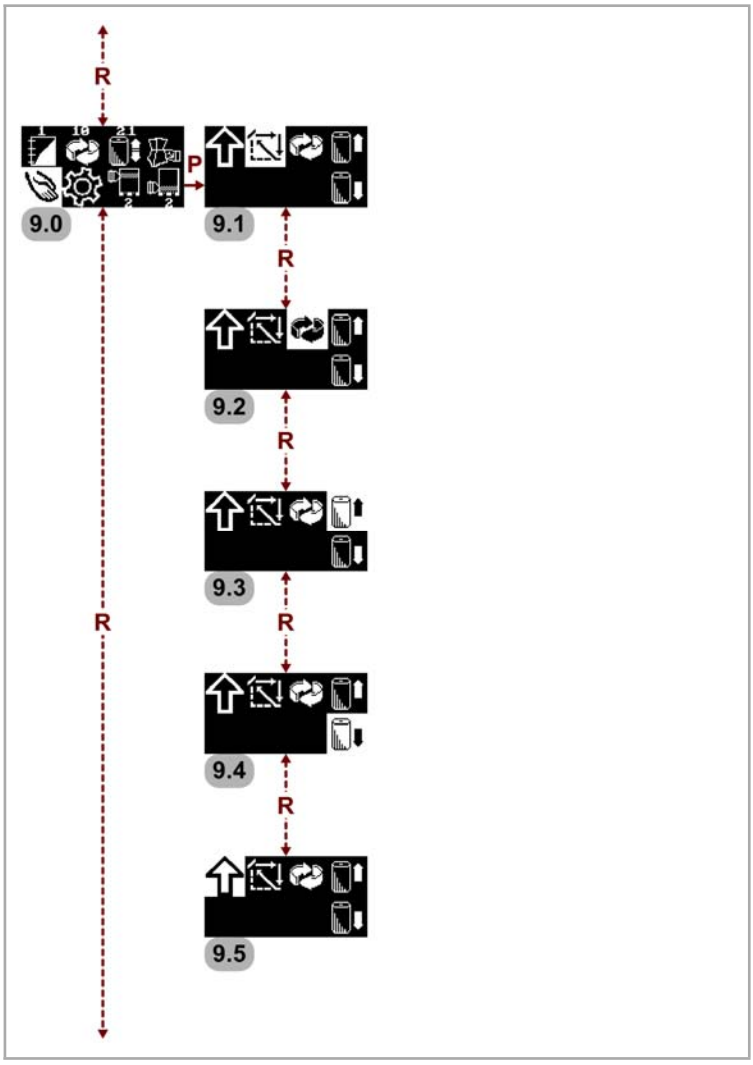
6.0 Amount of bottom strapping.
6.1 View the amount of assigned wrapping (by rotating the value changes)

7.0 Amount of top strapping.
7.1 View the amount of assigned wrapping (by rotating the value changes)

8.0 Enter the settings menu (See "settings menu").



9.0 Go to “manual controls” menu.
9.1 Wrapping cycle reset.
Press the "JOG" to set the machine in phase.
9.2 Arm rotation.
Press and hold the "JOG" to rotate.
When started back, the machine stay stationary.
9.3 Carriage ascent.
Press and hold the "JOG" to lift.
When started back, the machine stay stationary.
9.4 Carriage descent.
Press and hold the "JOG" to lower.
When started back, the machine stay stationary.
9.5 Return to homepage.
Press the "JOG" to return to the homepage.



6.8.2.SETTINGS MENU

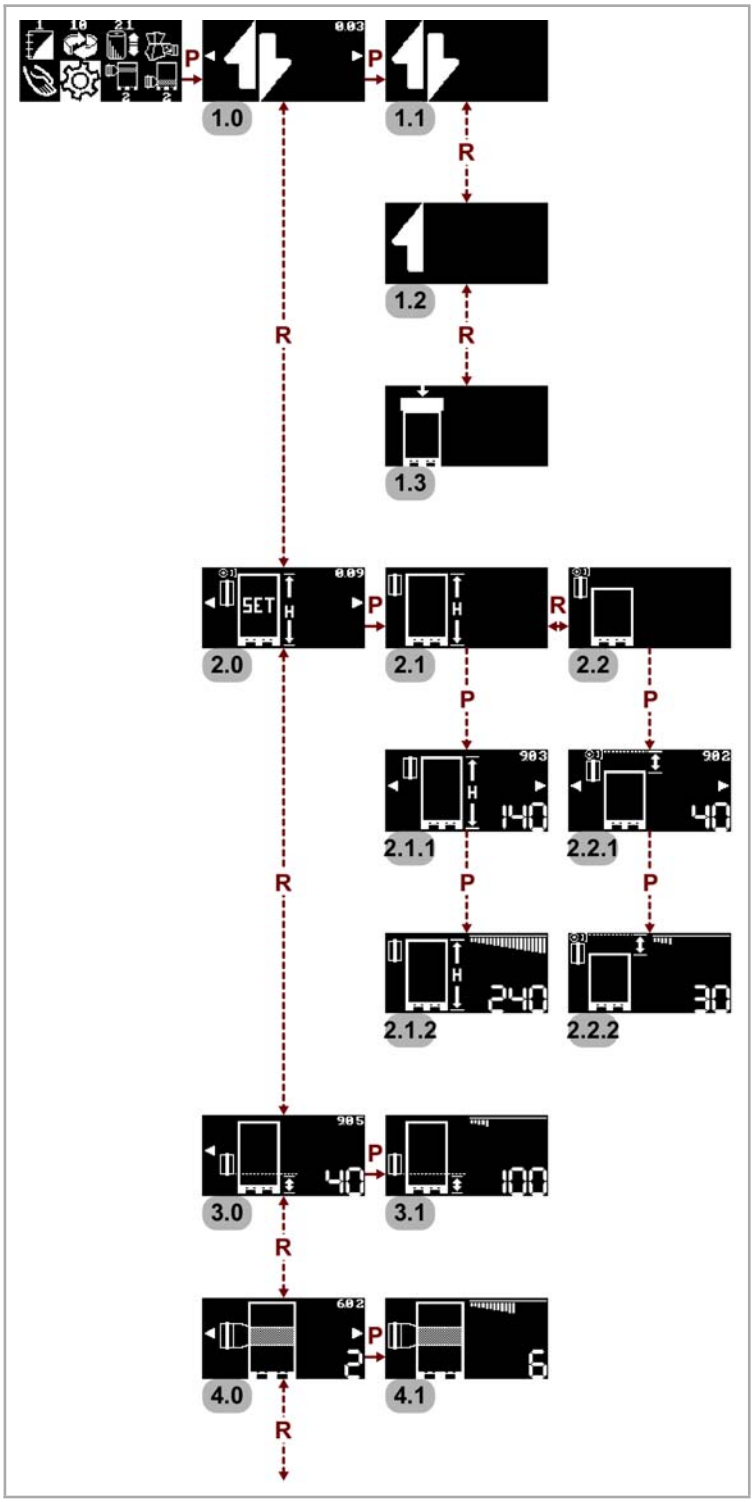
By pressing the "Settings" icon it is given access to a series of screens, see below:

1.0 Select cycle type.
1.1 "Double wrapping" cycle.
1.2 "Single wrapping" cycle.
1.3 "Double wrapping with feeder" cycle.

2.0 Select lifting with altimeter or photocell.
2.1 Altimeter ON/Photocell OFF.
2.1.1 Setting the altimeter.
2.1.2 Rotate the “JOG” to modify the value **(cm)**.
2.2 Photocell ON/Altimeter OFF.
2.2.1 Setting the photocell delay (if selected).
2.2.2 Rotate the “JOG” to modify the value.

3.0 Setting the offset from the ground.
3.1 Setting the wrapping start **(cm)**.

4.0 Setting the reinforcing wrapping rpm.
4.1 Amount of intermediate strapping.



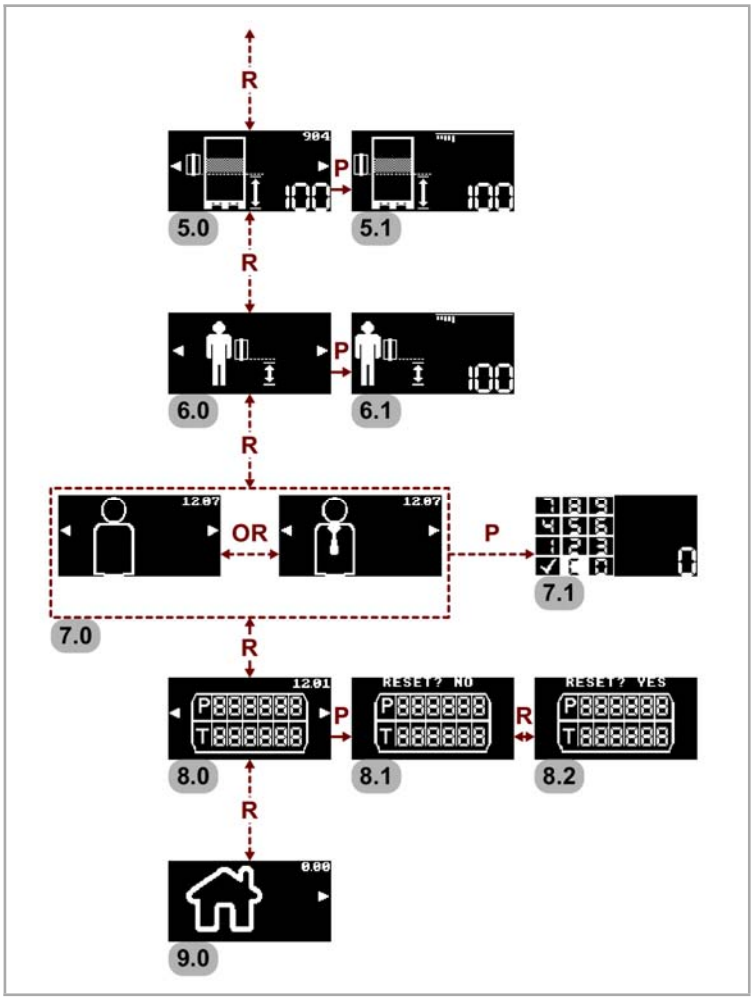
5.0 Setting the reinforcing wrapping height (if rpm **>0**).
5.1 Rotate the “JOG” to modify the value.

6.0 Setting the ergonomic lifting at the end of the cycle.
6.1 Rotate the "JOG" to set the value **(cm)** for the lifting of the carriage selected.

7.0 Select user - login (User **1**/User **2**).
7.1 Password change.
Insert password to change user.
Rotate to select the number and press to confirm.
"C" to delete password.
Tick to confirm password.
If the password is correct (default **1111**) an icon different to the one initially displayed appears.

8.0 Cycle counter
P = partial
T = total
8.1 Reset cycles – NO
Reset cycles - YES
8.2 Press to reset only the partial counter **(P)**.

9.0 Return to homepage



Attention

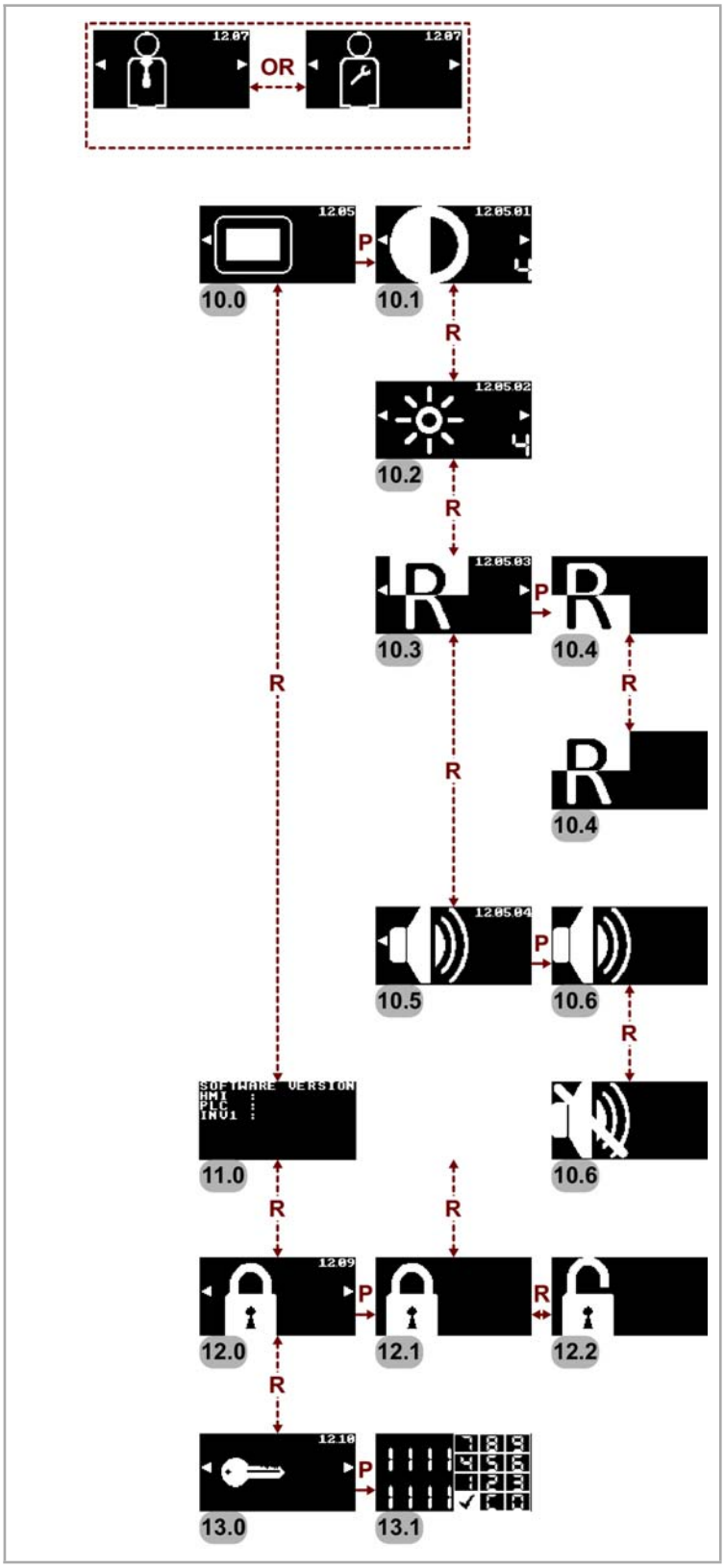
The following pages are available only if the user who has logged on has access type "Person in charge with the machine" or "Service".

10.0 Display settings (Display).
10.1 Counter
10.2 Brightness
10.3 Reverse colours
10.4 Reversed colours
10.5 Buzzer on
10.6 Buzzer off

11.0 Software version information.

12.0 Setting the keypad stoppage.
12.1 Stop active panel.
12.2 Panel unblocked.

13.0 Changing password (Default **1111**).
Page present if login carried out.
13.1 Change user password.
Rotate to select the number and press to confirm.
"**C**" to delete password.
Tick to confirm password.
If the values match the password is changed and the previous screen appears.
Otherwise, the two values will be reset and the password will not be changed.
To exit the screen without changing the password hold the “JOG” button pressed for at least **1** seconds.



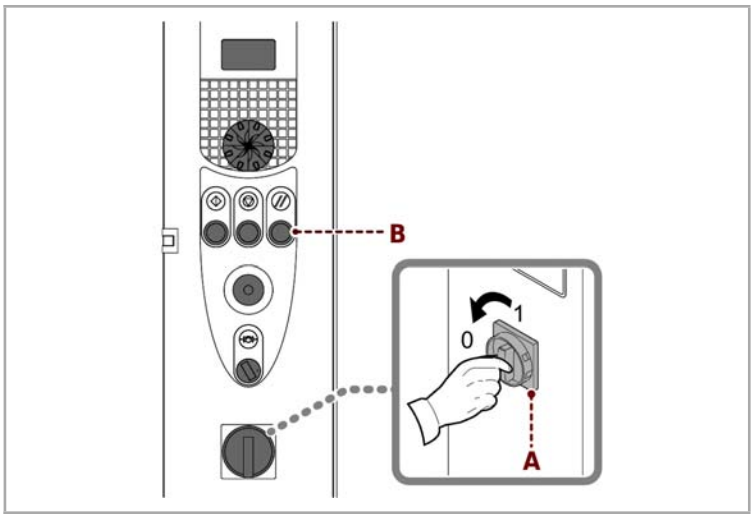
6.8.3. VARIOUS

Wrapping cycle in start phase.

Press the “Reset” button.

Press the "Cycle start" push-button.
Pick up from feeder cycle.

6.9. SWITCHING THE MACHINE ON AND OFF (MASTERWRAP)



Proceed as indicated.

1. Turn the main switch **(A)** on **"I"** (on) to supply electrical power to the machine.
   The icon to press the “reset” button appears on the display.
2. ≡ TRAD.MANCANTE ≡ Premere il pulsante “Reset AAA”.
   The display shows the homepage.
3. Set the cycle parameters (see **6.10** “Cycle parameter setting”).
4. Perform the cycle start operations (see **6.12** “Starting and stopping the cycle”).
5. Turn the main switch **(A)** to **"0"** (OFF) to turn the machine off.

6.10. CYCLE PARAMETER SETTING (MASTERWRAP)

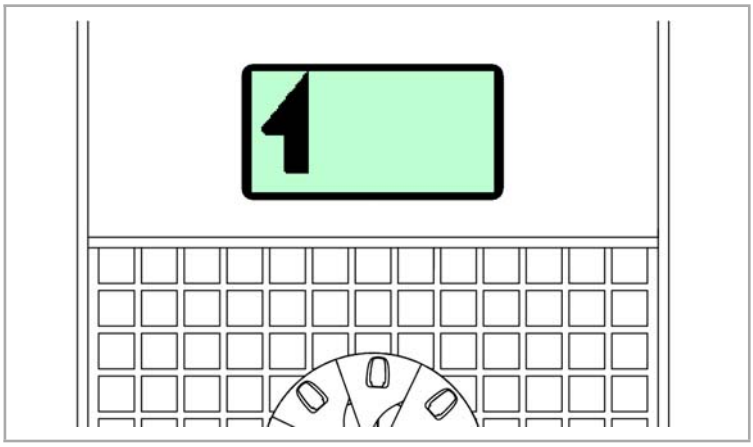
Proceed as indicated.

1. Switch the machine on (see **6.9** “Switching the machine on and off”).
2. Select the recipe by turning the jog.
3. Press the jog to select the recipe.
4. Turn to display and eventually change the parameters that have already been set for the recipe.
5. Press the jog to select the parameter and turn to change the value.
   This value will be memorised in the relative recipe.

6.11. WRAPPING CYCLES DESCRIPTION (MASTERWRAP)

Proceed as indicated.

6.11.1. SINGLE WRAPPING CYCLE

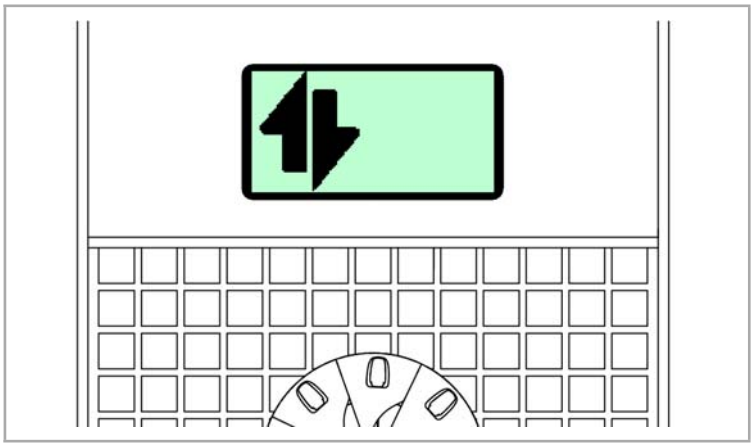


To select the “single cycle”:
- Rotate the jog to enable the wrapping cycles page.
- Press the jog and select single wrapping.
- Press the jog to confirm.

The spool carriage starts from the bottom of the pallet and stops at the top after having accomplished the preset number of rounds at the bottom and top of the pallet.

(See "description of user interface").

6.11.2. DOUBLE WRAPPING CYCLE

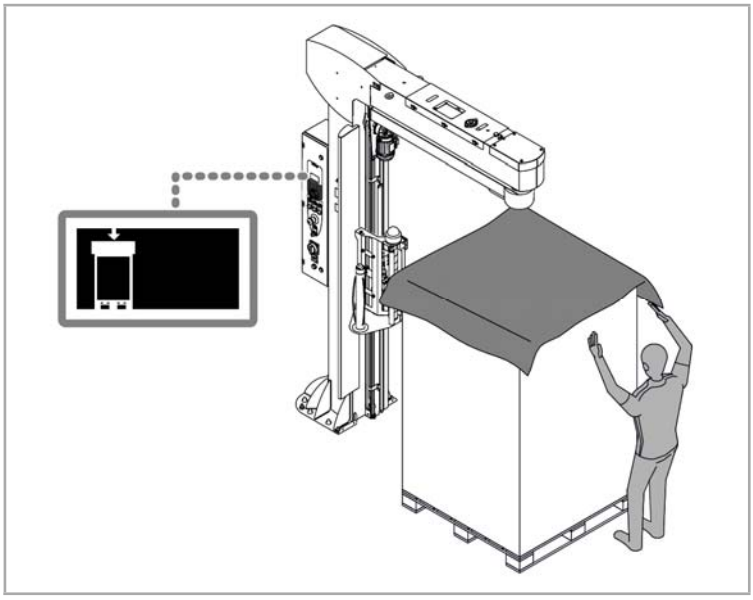


To select the “double cycle”:
- Rotate the jog to enable the wrapping cycles page.
- Press the jog and select double wrapping.
- Press the jog to confirm.

The reel carriage moves off from the bottom of the pallet and stops when it gets to the top, and then comes back down to the bottom of the pallet again, wrapping the load twice in doing so.

(See "description of user interface").

6.11.3. WRAPPING CYCLE WITH FEEDER



To select the cycle.

- Rotate the jog to enable the wrapping cycles page.
- Press the jog and select wrapping with feeder.
- Press the jog to confirm.

The machine performs a cycle which is aimed at facilitating the coverage of the pallet by the operator, and which guarantees the highest degree of protection possible.
The reel carriage rises to the top of the load and then lowers by about **300 mm** stopping in this position.
If the machine is fitted with a top pressure platen, this lifts from the load by about **200 mm**.
At this point, the operator, after having positioned the covering sheet on the top of the pallet, reactivates the cycle by pressing the "Start" button; the presser descends once more.
The carriage rises again until it reaches the top of the pallet, performs the set number of upper wrappings of the pallet, then descends once more, thus completing the cycle.

In this way, the position of the covering sheet, bound as it is by the upwards and downwards spirals of film, guarantees excellent protection of the load against atmospheric agents (water, dust, etc).
(See "description of user interface").

6.12. STARTING AND STOPPING THE CYCLE

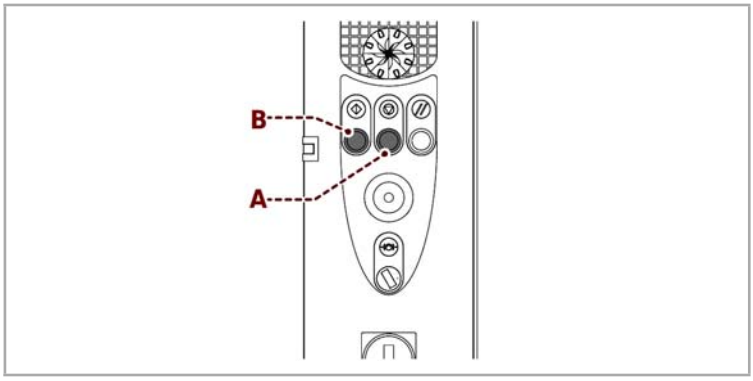
Proceed as indicated.

1. Get closer to the wrapping area and place the pallet on the marked area.
2. Lock the end of the film to the bench.
3. Set the desired wrapping mode..
For further details consult the paragraph "Description of the user interface".

Caution - Warning

Do not over stretch or pre-stretch the film and do not wrap with an excessive number of bindings in order to prevent damaging the packages and products contained inside.

4. Press the "Cycle start" push-button **(A)**. The machine performs a cycle and stops automatically.
5. Proceed to film cutting.
6. Remove the load and place another one on the table to start a new cycle.



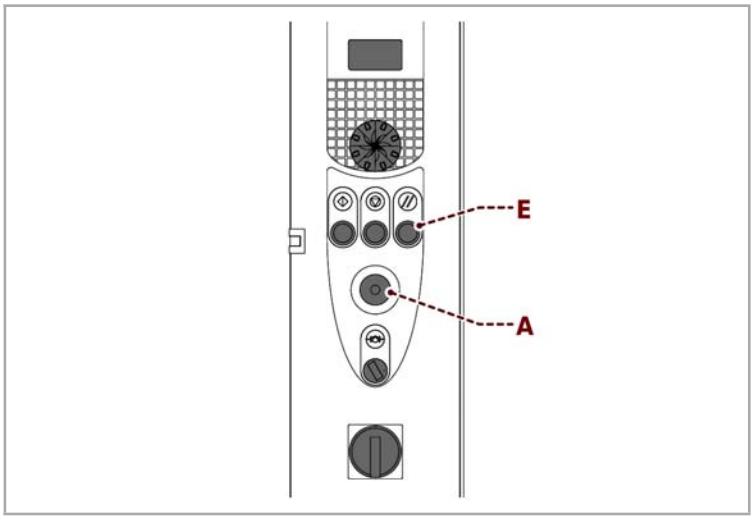
Important

To pause the cycle, press the "Stop cycle" **(B)** button.
Press the "start cycle" button **(A)** to restart.

Information applicable only to the wrapping mode "Sheet Feeder Cycle".

– When the machine stops at the upper part of the pallet, put the TOP sheet in place (do not cut the film at this stage)..
– Press the "Cycle start" push-button **(A)**.
The machine then resumes the wrapping process and stops at the base of the pallet upon completion of the programmed cycle.

6.13. EMERGENCY STOP AND RESTART (MASTERWRAP)



Proceed as indicated.

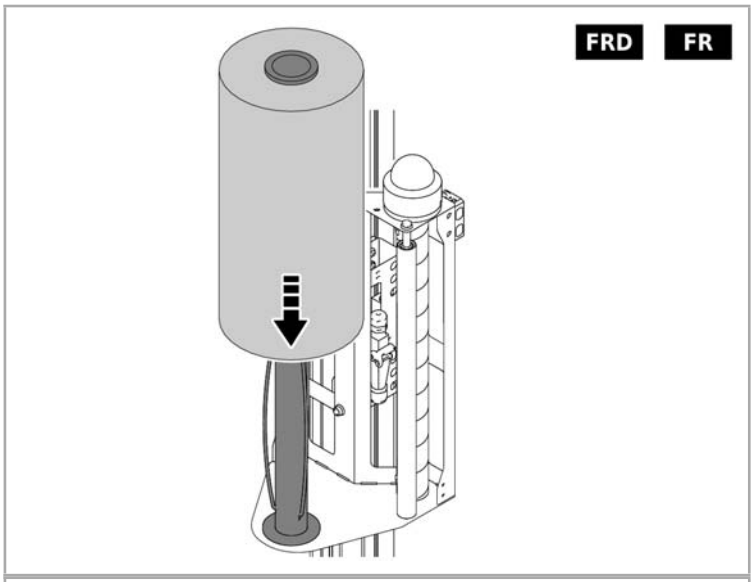
1. Press the machine emergency stop button **(A)** when there is imminent danger.
Its functions are immediately stopped.
The cycle does not reset.

2. After having re-established the normal operating conditions, the pushbutton must be released to authorize the machinery to restart.

3. Press the “Reset” **(E)** button.

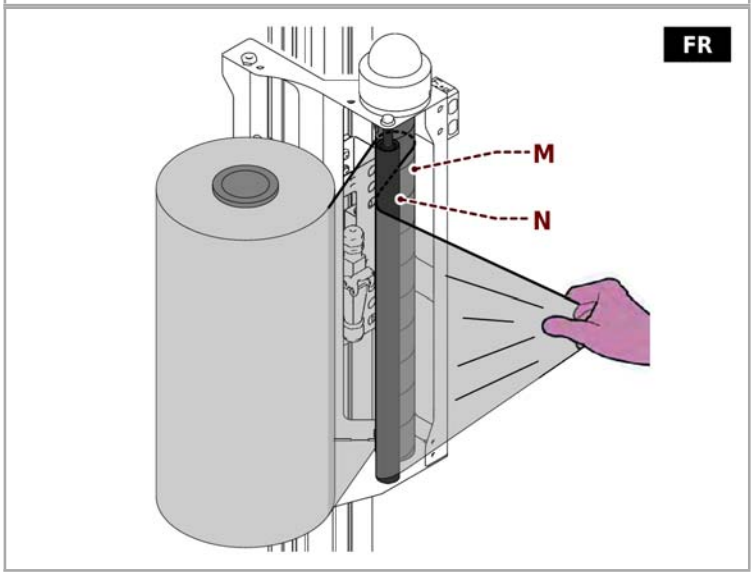
4. Repeat all the automatic cycle start operations (see “Starting and stopping the cycle”).

6.14. REEL LOADING



Proceed as indicated.

1. Insert the coating reel in the special seat of the reel carriage, with the adhesive side positioned on the basis of the wrapping mode envisaged.



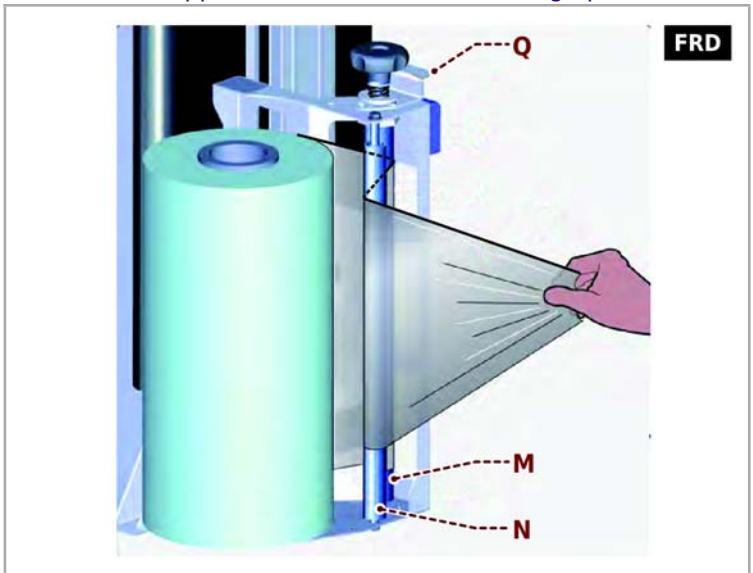
2. Collect the coating in a thin cord and pass it between the rollers **(M-N)**.

Important

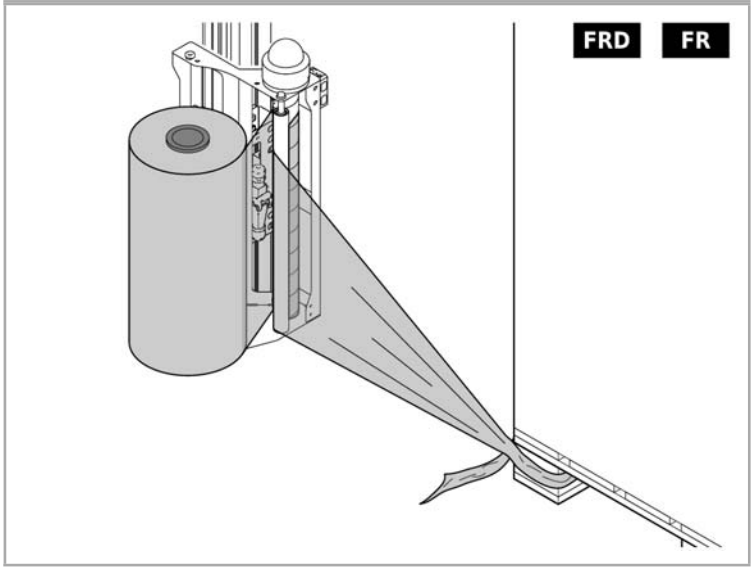
Unwind the film according to the procedure shown on the label applied on the roll-holder carriage plate..

3. Pull the cord outwards.
The film will automatically drop on the roller and cover it all along its height.

4. For carriage **FRD**, enable the lever **(Q)** upwards and, simultaneously, pull the coating cord.
Release the lever when the coating covers correctly the surface of the rollers.



5. Lock the edge of the coating at the corner of the pallet.



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 carrying out any maintenance work, turn off the electric and pneumatic power supply.**

7.2. MAINTENANCE PERIOD TABLE

Important

Keep the machine in maximum working conditions by performing the programmed maintenance operations advised by the manufacturer.
Proper maintenance will provide the best performance, a longer life span and constant compliance with safety requirements.

Routine maintenance intervals

Frequency	*Component*	*Type of intervention*	*Procedure*	*Reference*
every **30** days	Machine	Cleaning	Clean with a cloth of air jet	**-**
every **30** days	Rubber roller	Cleaning	Clean with a cloth of air jet	**-**
every **30** days	Rubber roller	General inspection	Remove possible coating fragments	**-**
every **30** days	Sliding blocks	Lubricate	Use spray grease or silicone oil spray	**-**
Each **2000** cycles or monthly	Brake disk	Cleaning	Use a cloth. If noisy, lubricate lightly with oil spray and wipe dry with a cloth	**-**

Each **2000** cycles or monthly	Arm rotation chain	General inspection	Check tension and adjust, if necessary, adjust	See "Adjusting the strain of the wrapping arm transmission belt"
Each **2000** cycles or monthly	Arm rotation chain	Lubricate	**-**	See “Lubrication point diagram”
Each **2000** cycles or monthly	Carriage handling belt	General inspection	Check tension and adjust, if necessary, adjust	See "Adjusting the reel carriage belt"
Each **2000** cycles or monthly	Cable conveyor chain	General inspection	Check the proper modes of operation and fastening	**-**
Each **2000** cycles or monthly	Tightening the carriage screws	General inspection	Check the screws tightening on coil carrier axle, tailstock, rubber roller, knob and release lever	**-**
Each **20000** cycles or yearly	Arm rotation chain	Wear check	Replace chain, if worn out	Contact the technical assistance service
Each **20000** cycles or yearly	Carriage handling assistance belt	Wear check	Replace the component if worn	Contact the technical assistance service
Each **20000** cycles or yearly	Carriage sliding blocks	Wear check	Replace the components if worn	Contact the technical assistance service
Each **20000** cycles or yearly	Safety devices	Efficiency control	Have any faulty device replaced	Contact the technical assistance service
Each **20000** cycles or yearly	Brake disc for arm rotation geared motor	Wear check	Replace the component if its thickness is less than **3 mm**	Contact the technical assistance service
Each **20000** cycles or yearly	Fastening screws for the fixing of the column base to the ground	Checking tightness of threaded fasteners	Tighten screws	**-**
Each **20000** cycles or yearly	Rotary support on rotation shaft	Lubricate	Lubricate using the special greasing nipple	**-**
Each **100000** cycles	Geared motor brake disc	Check modes of operation and braking torque	Ensure that the arm, if pushed, remains stationary in stop position	Contact the technical assistance service

Each **100000** cycles	Arm rotation chain	General inspection	Replace	Contact the technical assistance service
Each **100000** cycles	Arm rotation geared motor	General inspection	Replace the component in case of flaws in the tightness and backlash	Contact the technical assistance service
Each **100000** cycles	Reel carriage geared motor	General inspection	Replace the component in case of flaws in the tightness and backlash	Contact the technical assistance service

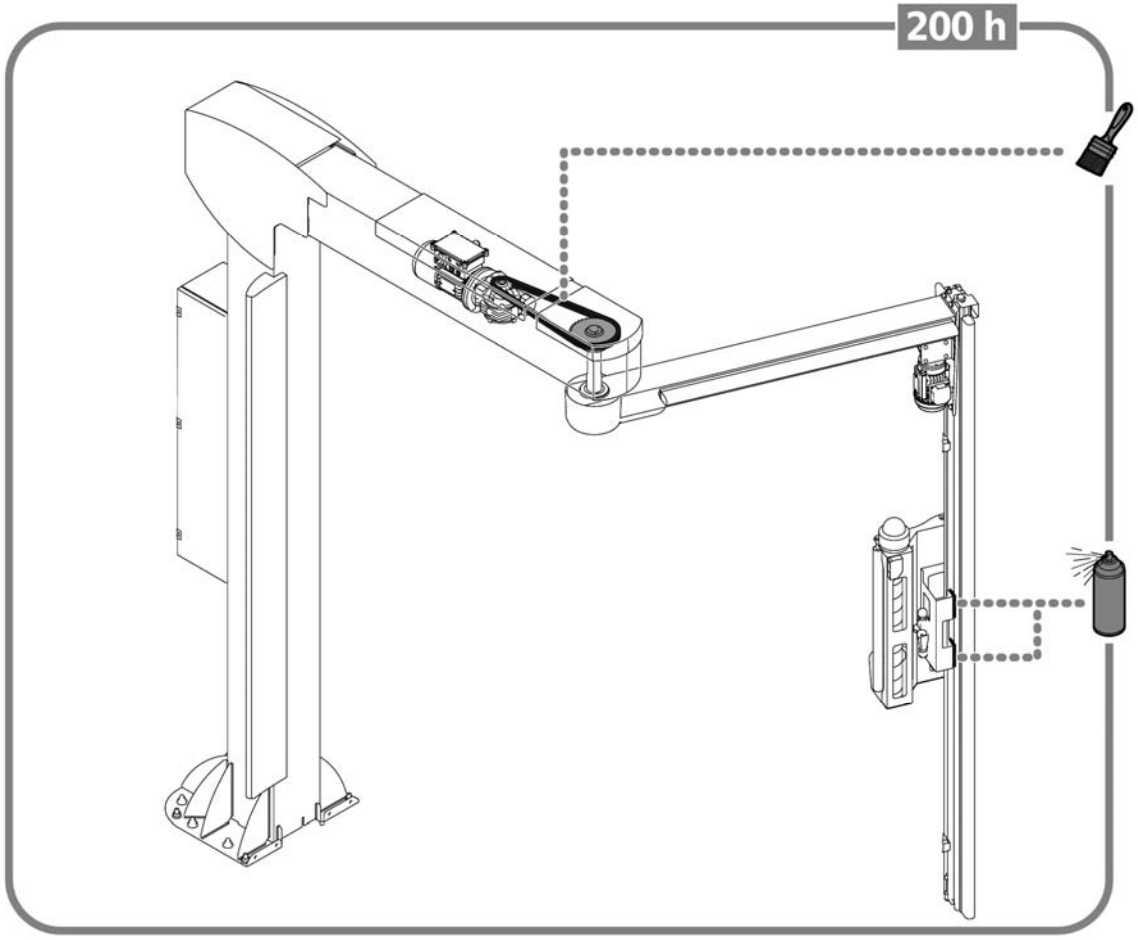
Important

In the event of heavy use increase the inspection frequency by halving the maintenance intervals.

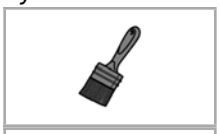
Heavy duty use definition:
- Operating temperature **<10°C**
- Number of packing **>50/** per day
- Dusty environment

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.

Lubricate with Silicone grease spray.

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. LUBRICANTS TABLE

The table below specifies the lubricants recommended by the Manufacturer for each component and/or area of the machine..

Lubricant specifications

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** **BLASIA 320 AGIP** **MOBILGEAR 632 MOBIL** **OMALA EP 320 SHELL** **ENERGOL GR-XP 320 BP**	- Gear motor - 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	**TELESIA OIL IP** **SYNTHESO D 220 EP KLUBER** **BLASIA S 220 AGIP**	Bearings with support
Synthetic oil	**+25°C / +45°C VG 150 (SAE 40)** **+45°C / +70°C VG 220 (SAE 50)**	Drive chain

Important

Do not mix oils of different makes and specifications.

8. TROUBLESHOOTING

8.1. ALARM MESSAGES

In the event of a breakdown during operations the machine stops automatically and alarm messages appear on the display.
The table lists the displayed messages, the type of problem, the cause and possible solutions.

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.

8.1.1. ALARMS LIST (ECOWRAP)

Name	*Problem*	*Cause*	*Remedy*
E01	Emergency stop alarm	The emergency pushbutton is in locked position	Reset the button and press the Reset button
E01	Emergency stop alarm	The bumper hit an obstacle in the working area	Remove the obstacle and press the “Reset” push-button
E30	Main inverter alarm	Inverter overload	Eliminate the cause of overload and press the “Reset” button
E31	Carriage frequency changer alarm	Inverter overload	Eliminate the cause of overload and press the “Reset” button
E34	Fault Inverter overload	Overheating of the power inverter	Eliminate the cause of overload and press the “Reset” button
E41	Serial communication error alarm	Electronic fault	Contact the Servicing Dept
E42	Cycle parameters initialization alarm	Electronic fault	Contact the Servicing Dept
E43	Data writing alarm	Electronic fault	Contact the Servicing Dept
E44	Data writing alarm	Electronic fault	Contact the Servicing Dept
E46	Serial communication error alarm	Electronic fault	Contact the Servicing Dept
E47	Serial communication error alarm	Electronic fault	Contact the Servicing Dept
E61	Rotation alarm blocked	Breakdown or jamming block the arm rotation	Fix the breakdown or remove the obstacle and press the “Reset” button

E62	Blocked spool carriage alarm	Breakdown or jamming block the carriage translation	Fix the breakdown or remove the obstacle and press the “Reset” button
E70	Function disabled alarm	A function was selected from the control panel that is not enabled for the type of reel carriage installed on the machine or the keyboard block is on	Select another function from the control panel or release the keyboard
E90	Low tension alarm	The strain is lower than the minimum value permitted	Reset tension ratio
E91	High tension alarm	Tension is higher than maximum allowed value	Reset tension ratio

8.1.2.ALARMS LIST (MASTERWRAP)

Name	*Problem*	*Cause*	*Remedy*
E01	Emergency stop alarm	The emergency pushbutton is in locked position	Reset the button and press the Reset button
E30	Engine alarm: **1** Worktable **2** Trolley	Motor fault	Contact the Servicing Dept
E61	Table blocked alarm	A breakdown or obstacle block table rotation	Fix the breakdown or remove the obstacle and press the “Reset” button
E64	Blocked spool carriage alarm	Breakdown or jamming block the carriage translation	Fix the breakdown or remove the obstacle and press the “Reset” button
E70	Function disabled alarm	A function was selected from the control panel that is not enabled for the type of reel carriage installed on the machine or the keyboard block is on	Select another function from the control panel or release the keyboard
E83	Communication error alarm	Electronic fault	Contact the Servicing Dept

8.1.3.LIST OF PROBLEMS (ECOWRAP - MASTERWRAP)

Problem	*Cause*	*Remedy*

The carriage with no coating vibrates while following the stroke	Excessive friction on guide	Clean the guide, lubricate the guide with silicone oil or grease spray.
The carriage with no coating vibrates while following the stroke	Excessive sliding block wear	Replace the sliding block
The carriage with no coating vibrates while following the stroke	Poor belt strain	Verify the belt strain by making sure the tensioning springs have, after precharge, a length equal to **18 mm**.
The carriage releases the coating by stuttering	Excessive strain on the coating	Loosen the braking on the rubber roller.
The carriage releases the coating by stuttering	Rubber roller jammed	Ensure the roller rotates neutral when freed from the brake. Inspect and possibly remove any coating fragments at the lower side of the roller.
The carriage releases the coating by stuttering	Friction disc dirty	Remove the friction disc and clean the surfaces in contact using a cloth soaked in alcohol.
The carriage releases the coating by stuttering	Friction disc worn	Replace the disc if the thickness of the friction material is less than **3 mm**.
The carriage releases the coating by stuttering	The coil carrier axle is unstable	Check the correct tightening of the coil carrier axle. If a pre-stretched coating is used, anchor sturdily the reel with the special tailstock.
Noisy friction disc	Excessive dirt on disc	Remove and clean the two surfaces in contact using a cloth soaked in alcohol. Lightly lubricate with oil spray the material subjected to friction. The oil will temporarily reduce the friction coefficient and therefore the braking of the coating, but it inhibits future formation of oxide that generate noise.
Coating broken	Excessive coating strain	Reduce the strain by acting on the break knob provided on the carriage.
Coating broken	The product to be packed has sharp edges.	**-** Reduce the strain by acting on the break knob provided on the carriage. **-** Increase the coating thickness. **-** Lower the rotation speed of the rotary arm.

Coating broken	Rubberised roller locking device	Ensure the roller rotates neutral when freed from the brake. Inspect and possibly remove any coating fragments at the lower side of the roller.
Coating broken	Coil carrier axle locking device	Check the correct tightening of the coil carrier axle. Verify the correct grasp of the coil on the bottom plain bearing, using the phasing metal blade. Replace if required.
The carriage does not lift over the pallet	Altimeter function enabled	Modify the position set, or enable the pallet height detecting photocell.
The carriage does not lift or it stops in an incorrect position	The coil is too heavy	Use only coils having maximum weight equal to **8 kg**.
The carriage does not lift or it stops in an incorrect position	Wrong position of the limit switch cam	Check the correct position of the limit switch cams.
The carriage does not lift or it stops in an incorrect position	Transmission blocked	Check the correct operation of the transmission components: motor and gear reducer.
The carriage does not lift or it stops in an incorrect position	Sliding on guide blocked	Ensure there are no obstructions on the path of the sliding block.
The carriage does not lift or it stops in an incorrect position	Limit switch broken	Check the proper operation of the limit switches.
The carriage does not lift or it stops in an incorrect position	Broken cables in the chain	Check the continuity of the electrical connections.
The carriage does not lift or it stops in an incorrect position	Poor belt strain	Verify the belt strain by making sure the precharge springs have a length equal to **18 mm**.
Poor driving force on the rotating arm	Excessive friction on the rotating arm transmission members.	Contact the Servicing Dept.
Poor driving force on the rotating arm	Brake on rotation motor not unlocked	Adjust the air gap of the brake on the arm rotation motor. Contact the Servicing Dept.

Poor driving force on the rotating arm	Rubber roller jammed on carriage	**-** Reduce the strain by acting on the break knob provided on the carriage. **-** Ensure the roller rotates neutral when freed from the brake. Inspect and possibly remove any coating fragments at the lower side of the roller.
Poor driving force on the rotating arm	Brake unlocking control enabled	Rotate the push-button to unlock the brake on normal position.
Stop out of phase	Roller chain elongation	Adjust chain strain; replace if necessary. Attention: do not tighten excessively. Minimum perimeter clearance **10 cm**. See "Adjusting the strain of the wrapping arm transmission belt".
Excessive movement of the rotating arm in standby position	Roller chain elongation	Adjust chain strain; replace if necessary. Attention: do not tighten excessively. Minimum perimeter clearance **10 cm**. See "Adjusting the strain of the wrapping arm transmission belt".
Noisy rotation motor	Roller chain elongation	Adjust chain strain; replace if necessary.
Noisy rotation motor	Gear reduction unit	Check functionality.
Noisy rotation motor	Wrong air gap	Adjust the air gap of the brake on the arm rotation motor. Contact the Servicing Dept.
Arm rotation alarm (E61)	Arm jammed	Ensure the transmission components are in perfect conditions.
Arm rotation alarm (E61)	The inductive sensor does not read the cam	Adjust the distance of the inductive sensor of the cam.
Blocked spool carriage alarm (E62 - E64)	Carriage jammed	Check the condition of the transmission members, the positions of the cam and the weight of the coil.
(E01) Alarm	Impact of the arm against an obstacle	Remove the obstruction. If necessary, move the arm using the brake release push-button.
(E01) Alarm	Deformation of the sensitive edge internal sensor	Handle manually the sensitive edge at the impact area. If the power pack does not resets, it is necessary to replace the sensitive edge.
(E01) Alarm	Sensitive edge broken	Replace the component.
(E01) Alarm	Control unit broken	Replace the component.

9. SPARE PARTS REPLACEMENT INFORMATION

9.1. RECOMMENDATIONS FOR REPLACING PARTS

- **Before performing any operation, the authorised operator must make sure that he/she understood the "Instructions for use".**
- **Carry out the interventions with all the safety devices enabled and wear the DPI provided.**
- **Delimitate the work area complying with the safety conditions as provided by the standards on workplace safety in order to minimise the risks.**
- **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.**
- **Replace the components ONLY with ORIGINAL PARE PARTS or with SIMILAR design and functional features.**
  The use of similar but non-original spare parts may lead to improper repairs, altered performance and economic damage.
- **The components and/or safety devices shall be replaces ONLY with original spare parts to avoid altering the provided safety level.**

9.2. 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.

- Drive chain.
- Drive belt.
- Idle pulley bushings.
- Sliding pads.

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.

9.3. MACHINE DISPOSAL AND SCRAPING

Proceed as indicated.

9.3.1. TAKING THE MACHINERY OUT OF SERVICE

- Disconnect the supplies to the machine (electrical, pneumatic, Etc…) so that it cannot be restarted and position it in a place not easy to access..
- Empty in ad adequate way the systems containing damaging substances and do it in accordance with the current laws in force at workplaces and those regulating environmental protection.

9.3.2.MACHINE SCRAPPING

- Scrapping must be entrusted to authorized centres having the adequate skills and equipment to operate in safety conditions.
- Those who carry out the scrapping must locate the possible residual energies and implement a "safety plan" with the purpose of eliminating unexpected residual risks.
- The components must be selected depending on the chemical and physical characteristics of the materials and disposed of in a differentiated way, as per current regulations.
- Empty in ad adequate way the systems containing damaging substances and do it in accordance with the current laws in force at workplaces and those regulating environmental protection.

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.

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

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, EN 60204-1:2006/A1:2009, 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**