

**Rotating platform machine for plastic stretch film wrapping**

**TECHNOPLAT CS/CW  
TECHNOPLAT CS/CW TP**

*Translation of the original instructions*

Code: **3709302568.0**

Edition: **0517**

\_\_\_\_\_ **SERIAL NUMBER** \_\_\_\_\_

**ATTENTION**

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

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## 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 contribution to the improvement of the after-sales service that the manufacturer will 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 prevent personal health and safety risks and avoid economic damages.



#### **Important**

This symbol indicates critical technical and operating information that 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.

MODELLO	A	
MATRICOLA	B	
DATA	C	
ALIMENTAZIONE	D	V
FREQUENZA	E	Hz
N. FASI	F	
ASSORBIMENTO	G	A
POTENZA TOT.	H	kW
CONSUMO ARIA	L	l/min
PRESSIONE MAX	M	bar
PESO	N	kg

### 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.

ROBOPAC S.p.A  
VIA FABRIZIO DA MONTEBELLO, 81  
47892 GUALDICCILOLO, REPUBBLICA S. MARINO (RSM)  
**Phone 0549 (international ++378) 910511**  
**Fax 0549/908549 - 905946**  
**<http://www.aetnagroup.com>**

## 1.5. ATTACHED DOCUMENTATION

The machine is provided with the documentation listed below, in the absence of a different trade agreement.

- CE statement of conformity.
- Warranty conditions.
- Pneumatic circuit diagram.
- Wiring diagram and list of components.
- Manuals of installed commercial devices (if necessary for machine use).
- Instructions for unpacking and installation.
- Quick start guide.
- 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 priorly 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 priorly 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.
- It is forbidden to climb on the rotating table with forklifts. It can be both dangerous and can damage the machine.  
**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

### 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.

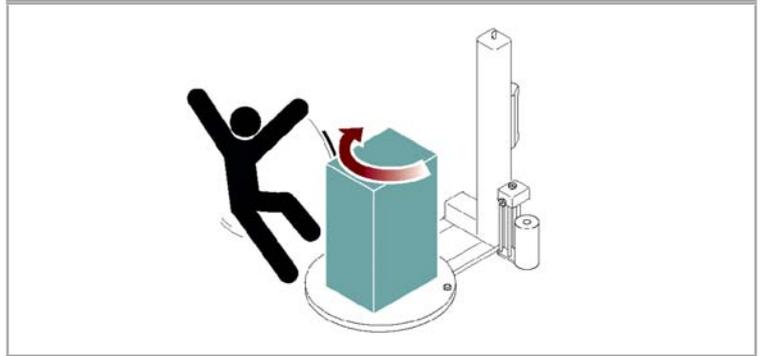
The residual risks are: "all the risks that persists although all safety solutions have been applied and integrated during machine design".

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

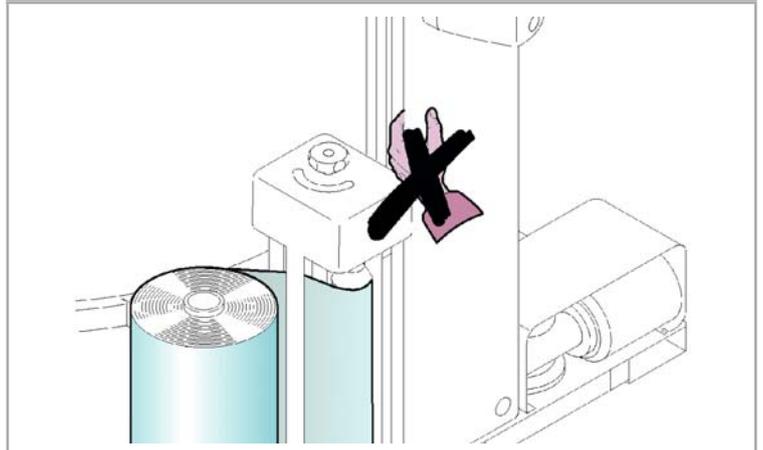
- **Danger of collision and slipping:**  
Do not get onto machine parts during its operation.



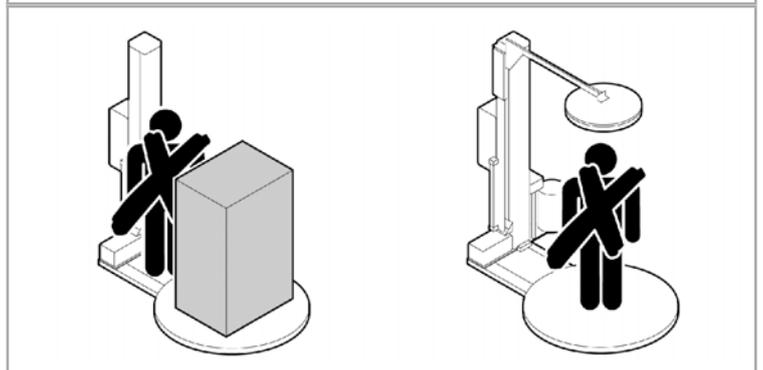
- **Danger of collision and slipping:**  
do not come near machine parts during its operation.



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



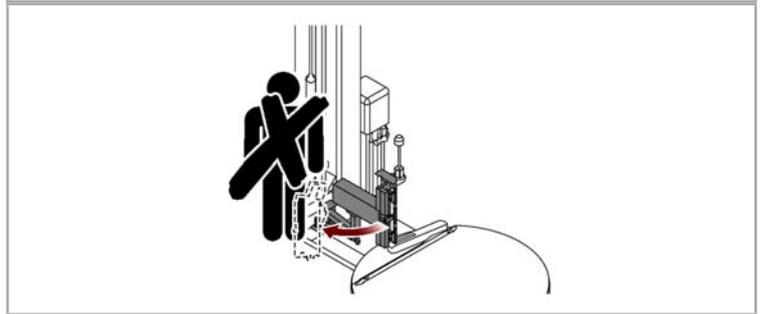
- **Body crushing hazard:**  
Do not linger in the machine operating area.



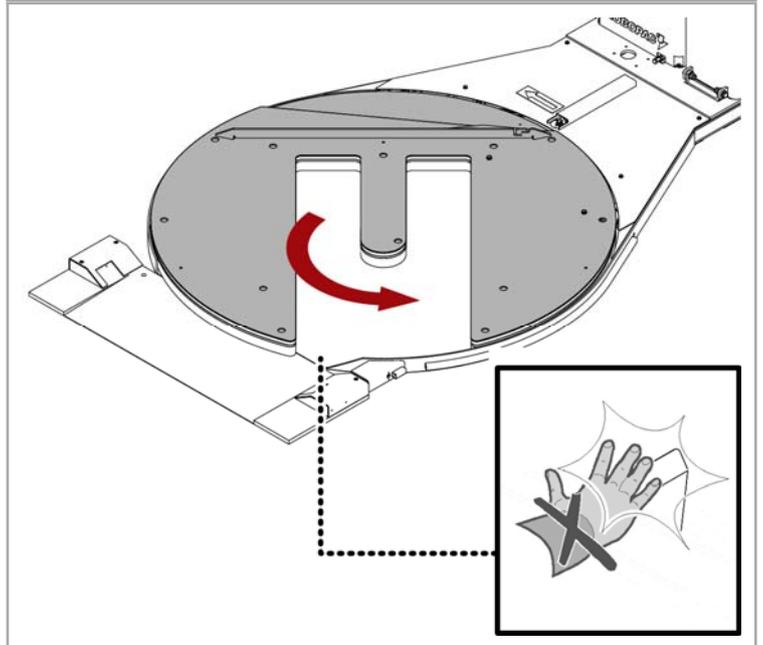
- **Body crushing hazard:**  
Do not linger in the machine operating area.



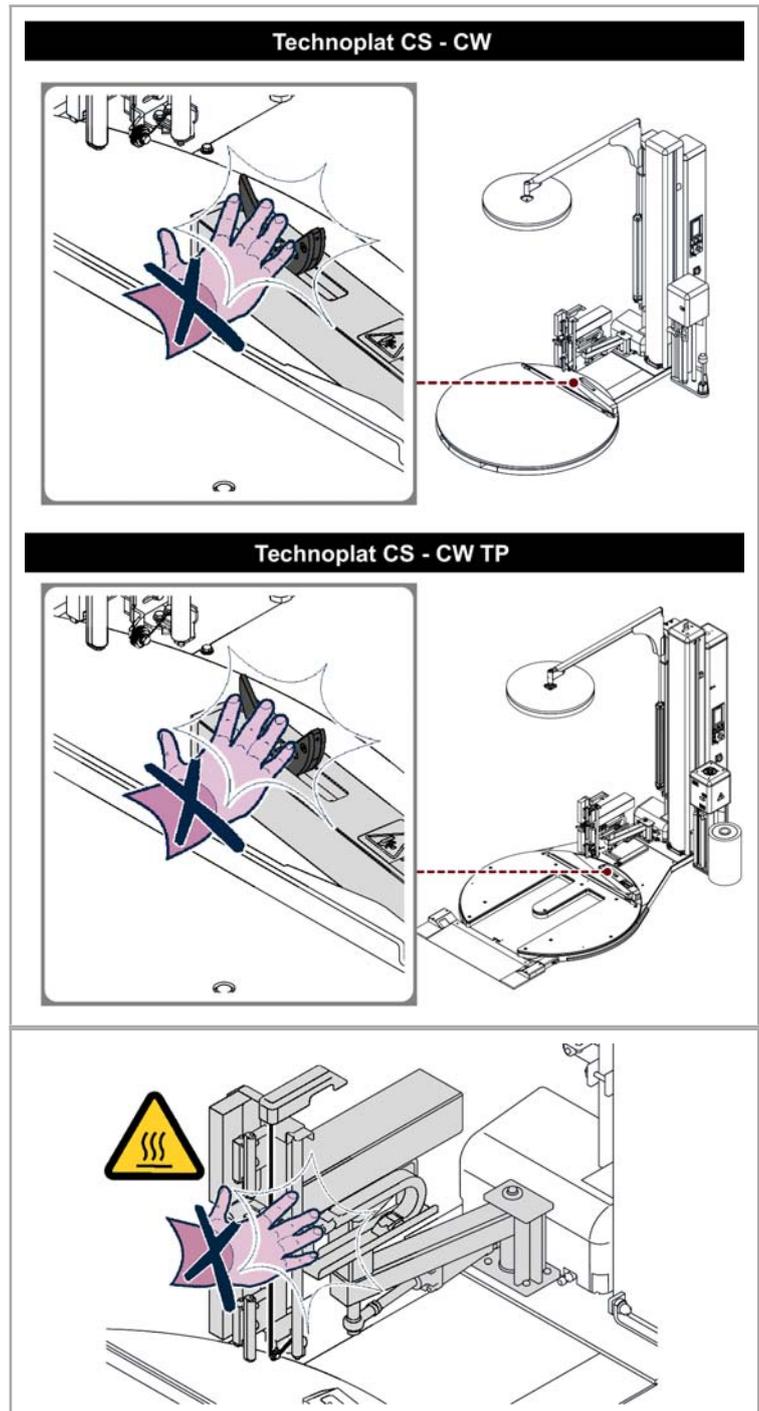
- **Danger of knocks:**  
Do not stand in the area where the arm moves.



- **Danger of arms crushing:**  
Do not place hands inside components in motion.



- **Danger of arms crushing.**  
Do not put hands inside the clamp unit.



- **Danger of scalding/burning:**  
Never bring body parts close to the rotating arm unit and especially to the cutting line and sealers (Only CW).

- **Danger of collision and slipping:**  
Do not draw close to or climb onto machine parts (i.e. the turntable) with the lifting device while the machine is running.
  - **Danger of projecting or 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. SAFETY WARNING FOR ELECTRICAL EQUIPMENT

The electrical system has been designed and built in compliance with applicable legislation.

This legislation also specifies the ambient conditions required for operation.

The following list specifies ambient conditions necessary to ensure correct electrical system function.

- Ambient temperature must be between **5°C** and **40°C**.
- Relative humidity must be between **50%** (measured at **40°C**) and **90%** (measured at **20°C**).
- The installation area must not be subject to or contain sources of electromagnetic interference or radiation (X rays, laser light etc).
- The installation area must not contain potentially explosive or flammable mixtures of gases or dust.
- No contaminant or corrosive products (acids, chemicals, salts etc.) may be used during production and maintenance. Any products used must be kept away from electrical components.
- The ambient temperature during storage must be between **- 25°C** and **55°C**.
- Electrical equipment may be exposed to temperatures up **70°C**, provided that exposure does not exceed **24** hours.
- The electrical system will function correctly up to an altitude of **1000 m** above sea level.

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

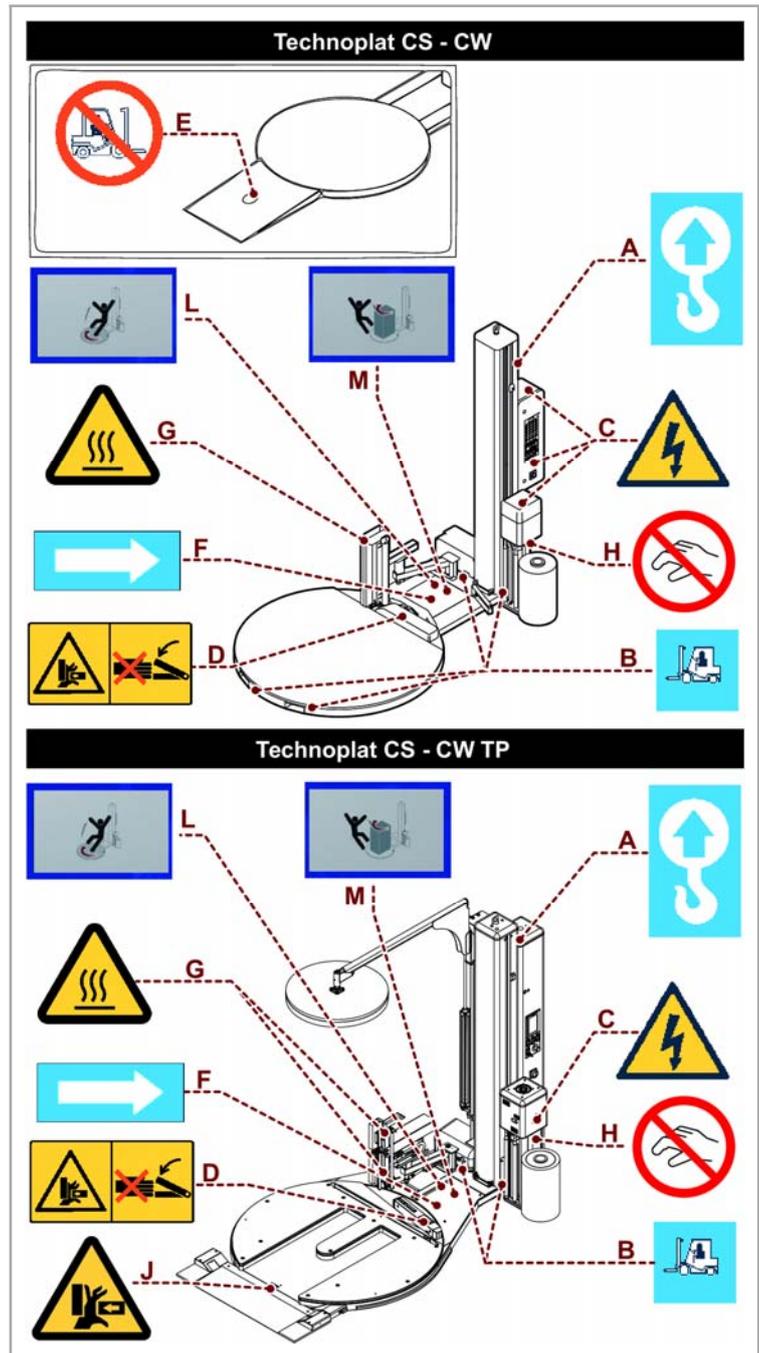
## 2.8. INFORMATION AND SAFETY SIGNALS

The figure indicates the position of the safety and information signs affixed to the machine.  
For each sign is specified the relative description.

- A) Information sign**  
Indicates the points for lifting with a hook device.
- B) Information sign**  
It shows the insertion points for the lifting forks.
- C) Electrical hazard sign**  
Do not access this area: risk of electrical shock or electrocution.
- D) Hazard sign**  
Danger of arms crushing.
- E) Prohibition sign**  
Do not climb onto the ramp with the forklift.
- F) Information sign**  
Indicates the direction in which the turntable rotates.
- G) Hazard sign**  
Danger of high temperature.
- H) Prohibition sign**  
Do not operate the component with your hands.
- J) Hazard sign**  
Hand crushing danger.
- L) Information sign**  
Do not get onto machine parts during its operation.
- M) Information sign**  
do not come near machine parts during its operation.

**! Important**

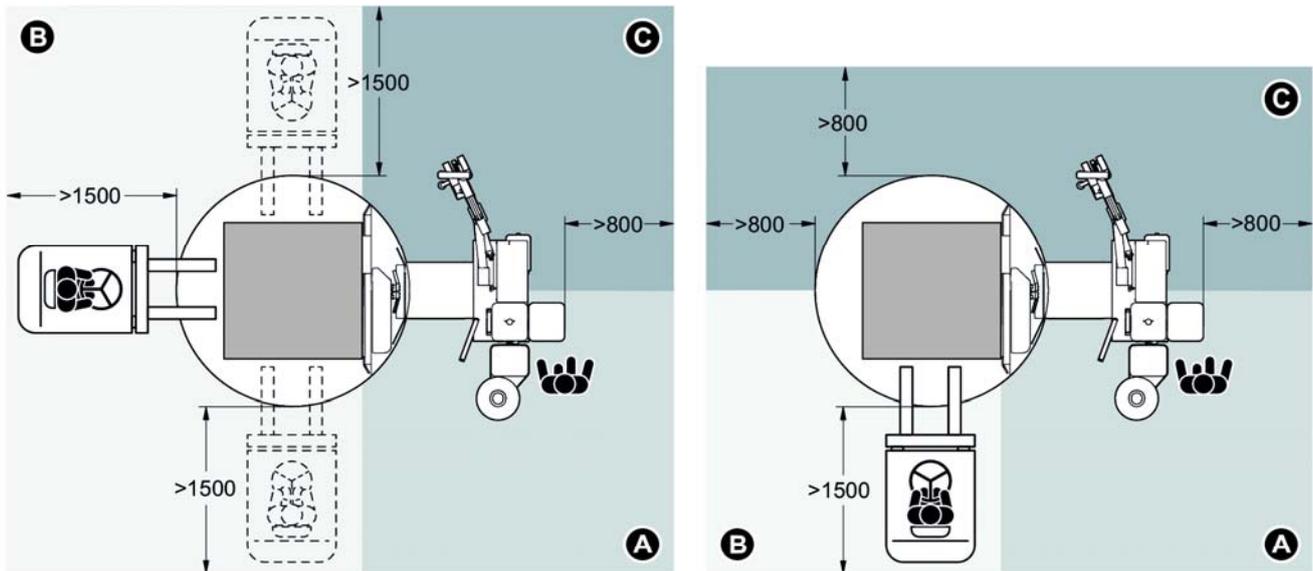
Make sure the labels are clearly readable.  
If they are not, replace them and fit them onto the machine where they originally were.



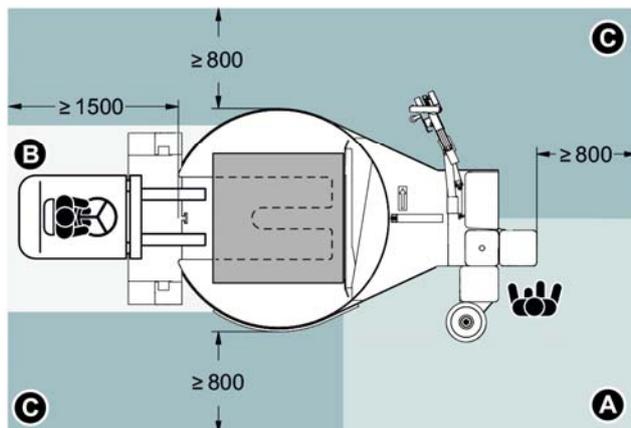
## 2.9. SURROUNDING AREAS

The illustration depicts the perimeter work areas of the machine.

**Technoplat CS - CW**

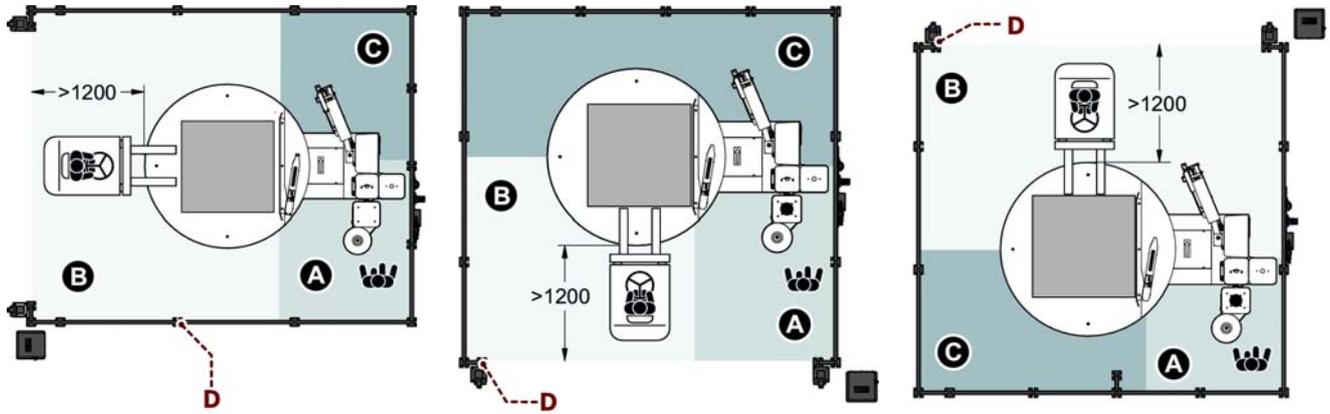


**Technoplat CS - CW TP**



- A) Operator's working area.
- B) Pallet loading/unloading area.
- C) Surrounding area.

D) Safety guards (Optional).



## 3. TECHNICAL INFORMATION

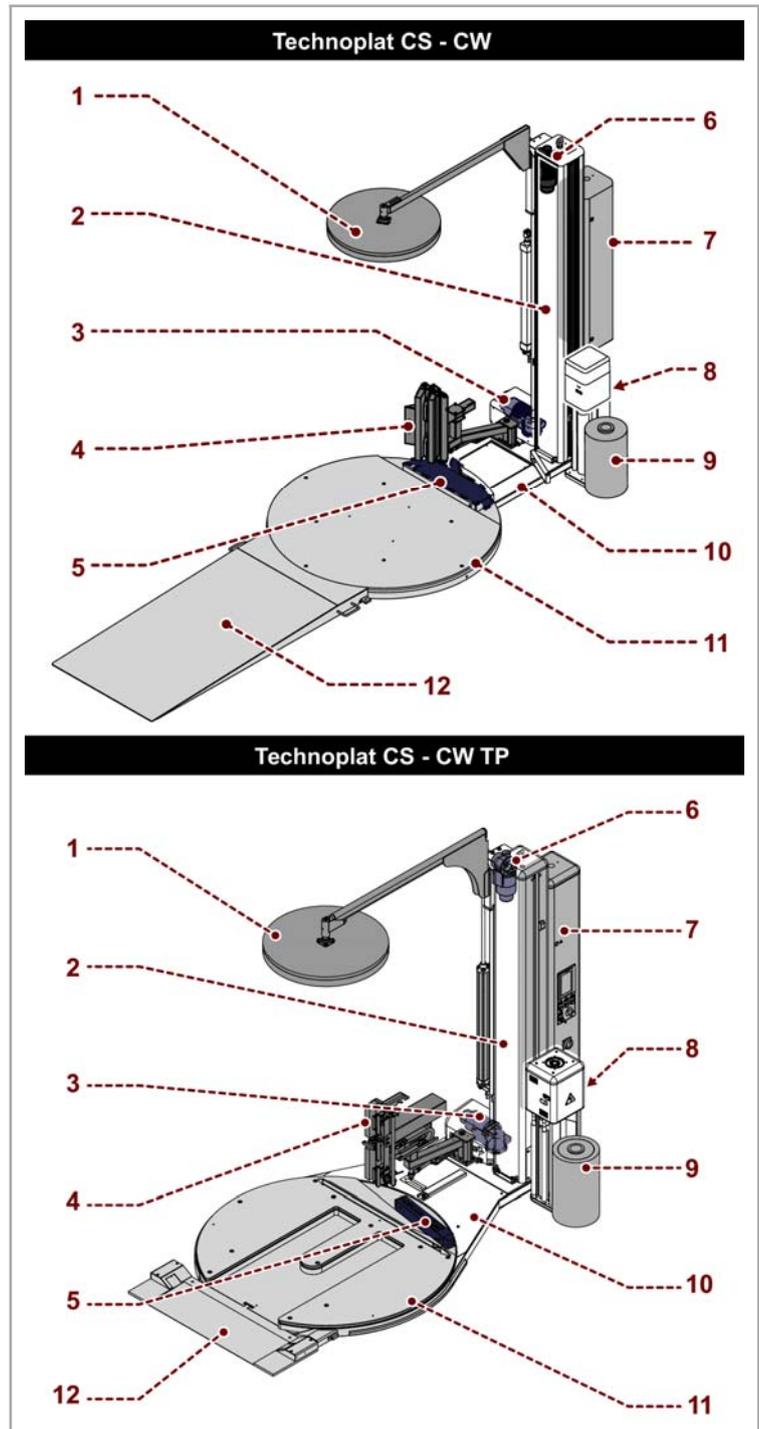
### 3.1. MACHINE GENERAL DESCRIPTION

- This is a semi-automatic wrapping machine for wrapping and blocking palletized loads using stretchable plastic 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 is composed of a revolving table that turns the pallet, and a reel carriage that unwinds and stretches the film.
- It is equipped with a series of safety devices designed to avoid any harm befalling the operator or other persons who come into contact with the machine in any way. The machine is produced in a range of different 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 loading and unloading of the pallet are carried out by the user who can also carry out the insertion and cutting of the film.
- Only one operator is required for use.

The figure shows, as a reference only, the machine models and the tables show the data and the main specifications.

**Key**

- 1) Pressure platen (Optional)
- 2) Slide guide mast
- 3) Table drive
- 4) Arm unit
- 5) Clamp unit
- 6) Rotating table
- 7) Carriage drive
- 8) Control panel
- 9) Pneumatic unit
- 10) Reel carriage
- 11) Base
- 12) Loading/unloading ramp



**3.1.1. DESCRIPTION OF MACHINE MODELS**

- **Technoplat CS**  
**Technoplat CS TP:** Rotating table with cutting/coating system.
- **Technoplat CW**  
**Technoplat CW TP:** Rotating table with cutting/sealing system.

Version **CS** uses film with adhesive.

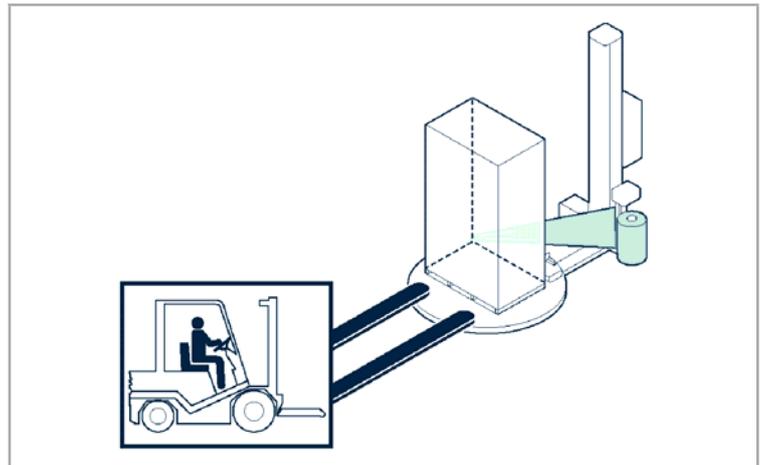
**Table: Reel carriage features**

Type of reel holding carriage	General Requirements
FR (308)	"FR" type reel carriage with friction roller, electromagnetic brake and film stretchadjustment from the control panel.
PDS (508)	Reel carriage type "PDS"; with motorized pre-stretch roller and electronically controlled film tension. The pre-stretch is adjustable from the (0÷25) control panel.
PVS (708)	Reel carriage type "PVS"; with dual motorized pre-stretch roller and electronically controlled film tension. The pre-stretch is adjustable from the (150%÷400%) control panel.

### 3.2. DESCRIPTION OF THE OPERATION CYCLE

#### Phase 1

- The pallet is loaded onto the turntable all the way to the end of the bracket on the plate, and the operator wraps the end of the film in the eyelet of the limit stop bracket.

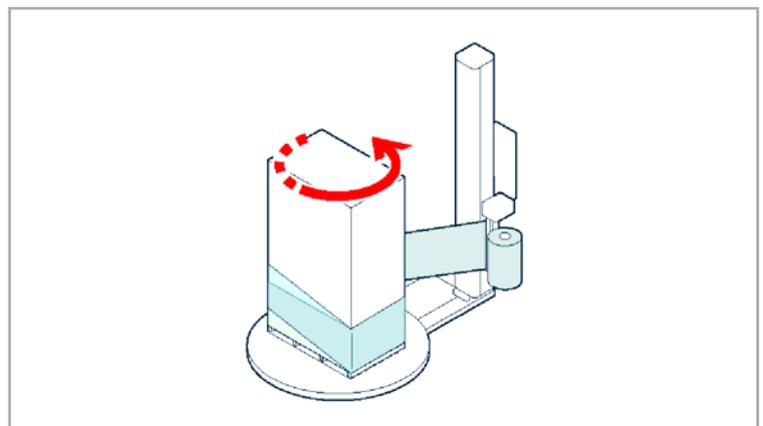


#### Caution - Warning

Danger of arms crushing.  
Do not insert the film in the clamping unit by hand.

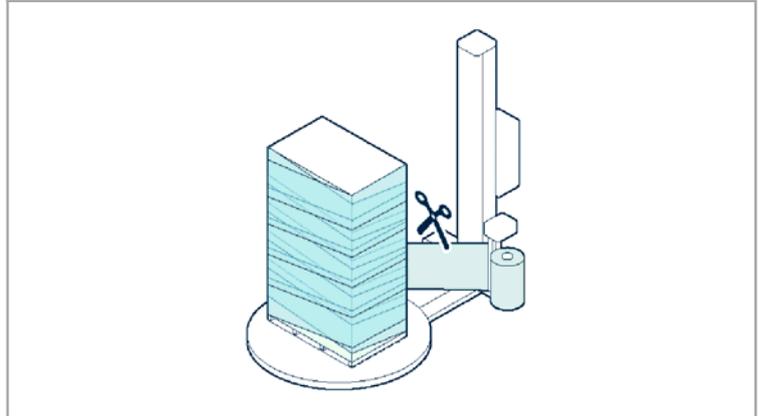
#### Phase 2

- Once the cycle has started, the turntable starts turning, while the film carriage unwraps the film based on the preset parameters.



**Phase 3**

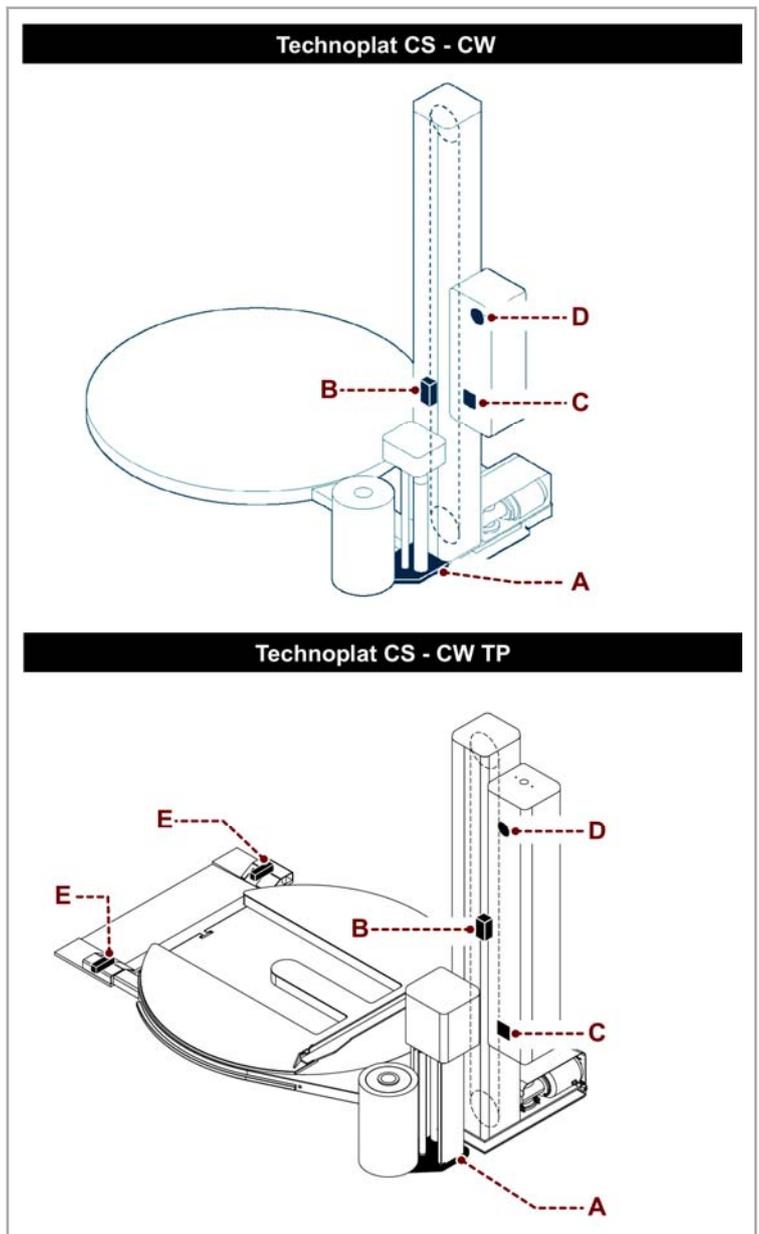
- When the wrapping phase is over, the machine stops and automatically hot-cuts and seals the film (**CW** version). The operator removes the pallet.
- The cycle ends and the machine is ready to start a new one.



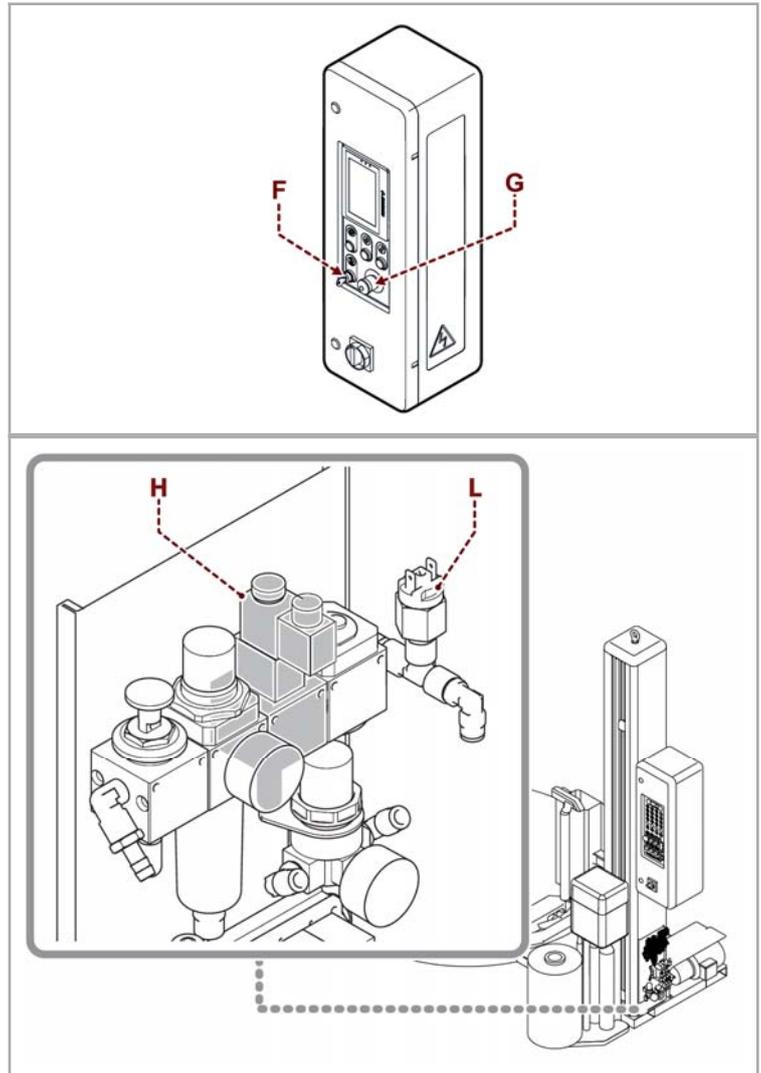
**3.3. SAFETY DEVICE DESCRIPTIONS**

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

- A)** Reel carriage base microswitch: stops the descent when there are obstacles under the carriage.
- B)** Mechanical device for blocking the reel carriage: it stops the reel carriage falling in the event that the lifting rope breaks.
- C)** Main switch: to turn the electric supply on and off. It can be padlocked to prevent unauthorised personnel from starting the machine during adjustments and maintenance.
- D)** Acoustic signal: signals the start of the wrapping cycle.
- E)** Fork entry photoelectric cell: detects the presence of the forks on the pallet unloading/loading ramp, and stops the table rotating.



- F)** Key selector: used to reset the emergency of the spool carriage. If kept rotating it allows to lift the trolley through the manual controls on the user interface.
- G)** Emergency button; the machine stops immediately when this button is pressed in emergency situations. To reset, rotate the button in the direction indicated by the arrow.
- H)** Solenoid valve: To eliminate the pneumatic pressure inside the machine in case of an emergency Stop.
- L)** Pressure switch: puts machine in emergency when line pressure is lower than set value.



### 3.4. DESCRIPTION OF THE ELECTRICAL DEVICES

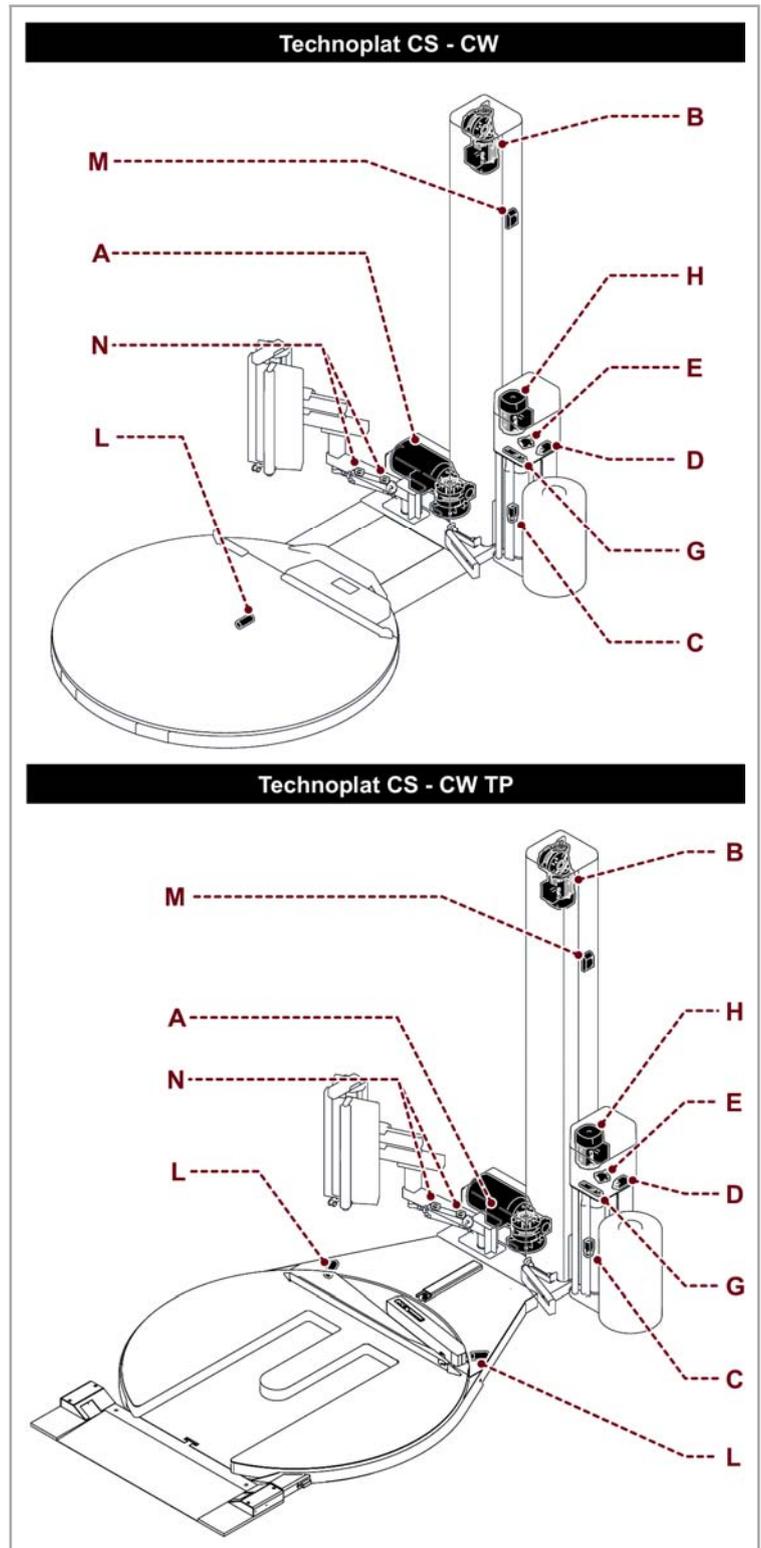
The figure shows the positioning of the devices on board of the machine.

- A) Gear motor: activates table rotation.
- B) Gear motor: activates movement of the spool carriage.
- C) Carriage limit stop microswitch: activates when the reel carriage reaches the minimum and maximum wrapping height.
- D) Micro-switch: it stops the descent when there are obstacles under the roll-holder carriage.
- E) Photocell: detects the presence and the height of the load to be wrapped.
- G) 'Load cell' sensor: it detects the tension of the film and enables the speed variation of the pre-stretching rollers.
- H) Electric motor: it drives the pre-stretch rollers.
- L) Sensor: enables the in phase stop of the rotary table.
- M) Trolley lifting sensor: it defines the position in which to stop the trolley to start processing.
- N) Sensor: to detect the "open" position of the arm.



**Important**

For further details see the electrical diagram.



### 3.5. PNEUMATIC DEVICE DESCRIPTION

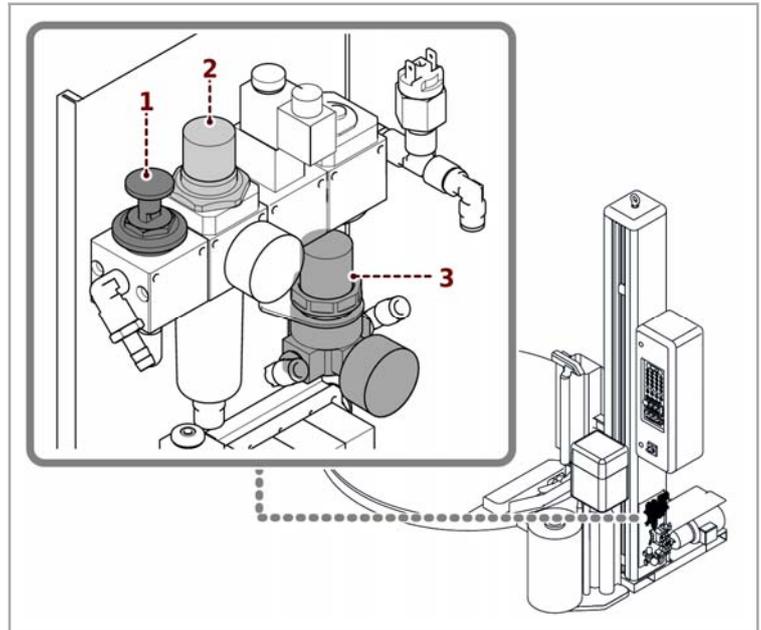
The figure shows the positioning of the devices on board of the machine.

- 1) **Tap.**  
to eliminate pneumatic pressure inside the machine.
- 2) **Pressure regulator with filter and pressure gauge.**  
to adjust general pressure of the pneumatic plant.  
Turn knob to change the pressure values indicated on the pressure gauge.
- 3) **Pressure regulator with pressure gauge.**  
To adjust the pressure of the rubber/welder circuit.



**Important**

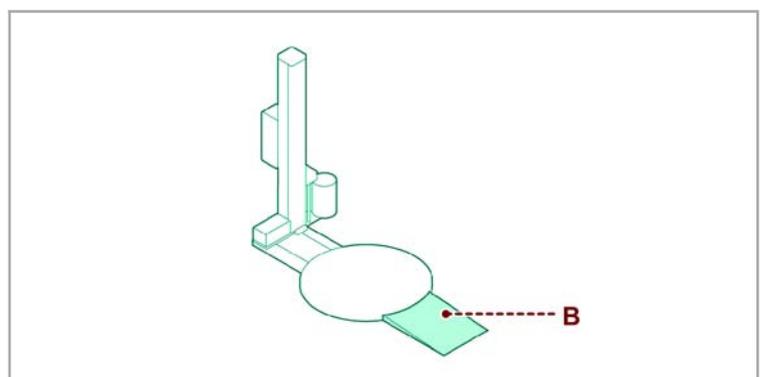
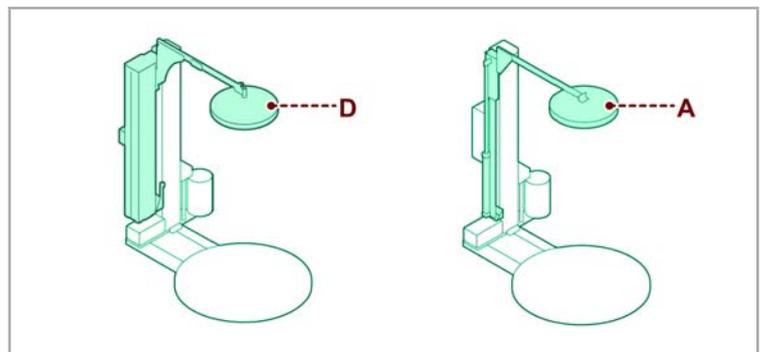
For further details see the pneumatic diagram.



### 3.6. DESCRIPTION OF ACCESSORIES ON REQUEST

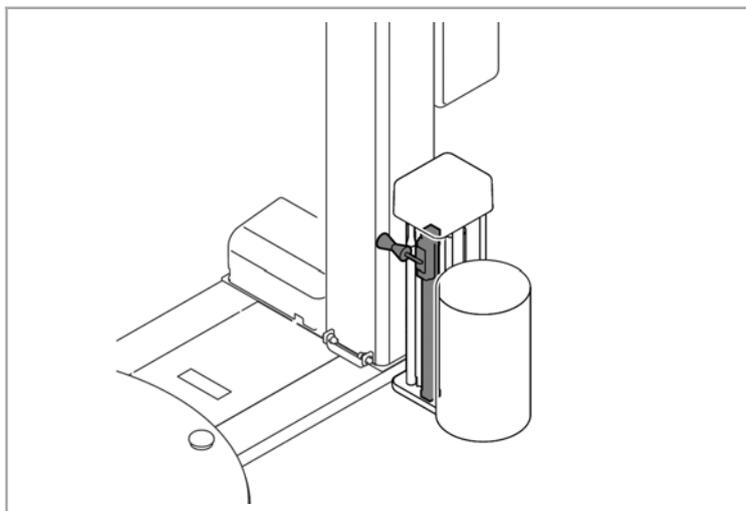
To enhance the performance and to increase the versatility of the machine, the manufacturer furnishes the accessories listed below.

- Pneumatic pressure platen **(A)**: pneumatically controlled device to stabilise the load. It is equipped with a rod pneumatic cylinder (MAX **800 mm** stroke).  
It is necessary to adjust the height depending on the dimensions of the product to be wrapped.  
For its operation, it is necessary to have an air distribution system.
- Mechanical pressure platen **(D)**: electrically controlled device to stabilise the load, it is not necessary to adjust the height depending on the dimensions of the product to be wrapped.
- Platform loading/unloading ramp **(B)**: to facilitate these operations using forklift devices (pallet jack).

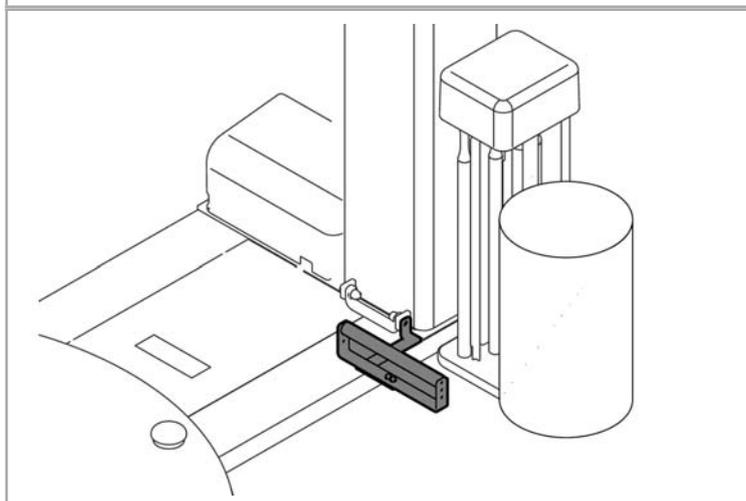


- Template for embedding: profiled structure for embedding the base in the ground.
- Sliding guide mast **(2400 - 2800 - 3100 mm)**: to wrap taller than standard loads.

- Folding device: it is used to collect the film in a point during wrapping so as to reinforce the package. The device is available either with compressed air or electric.



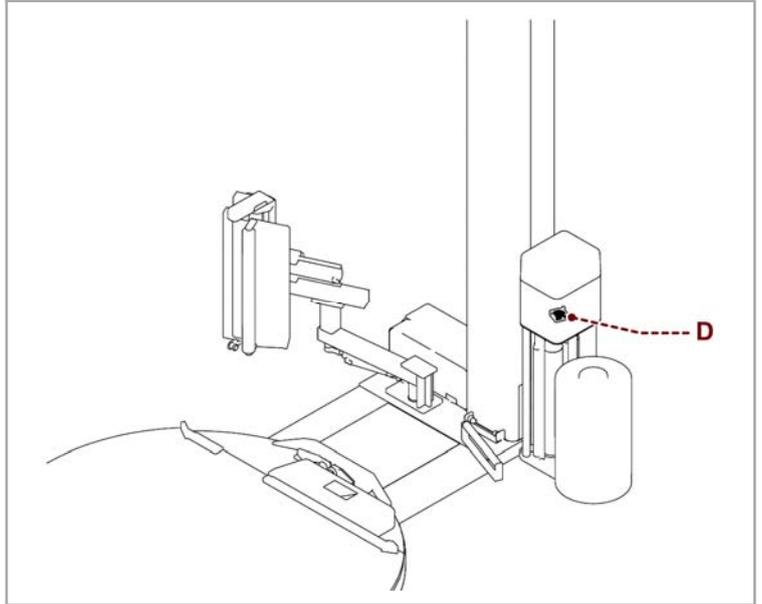
- Film reinforcing device: it is used to reinforce the film at the base of the product or on the pallet.



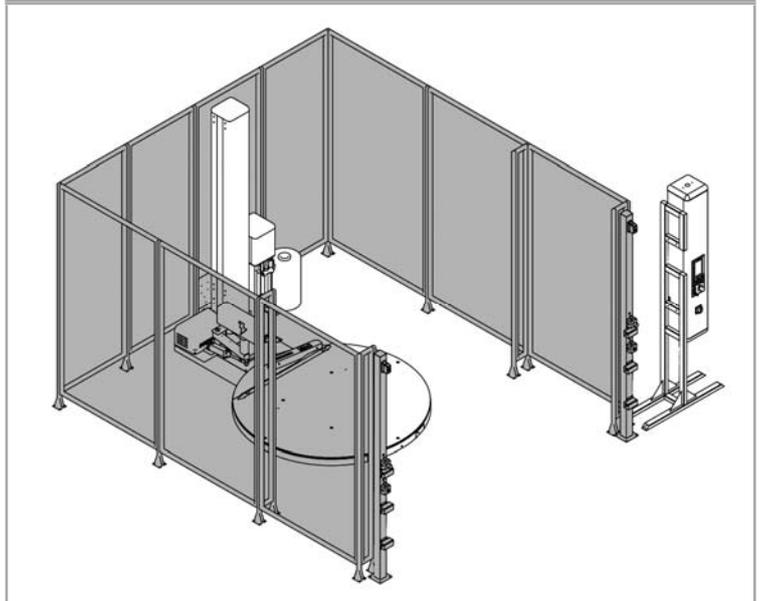
- Rope start: used to start the operating cycle.



- Black products **(D)** photocell reading: detects the height and presence of the dark colored loads to wrap.



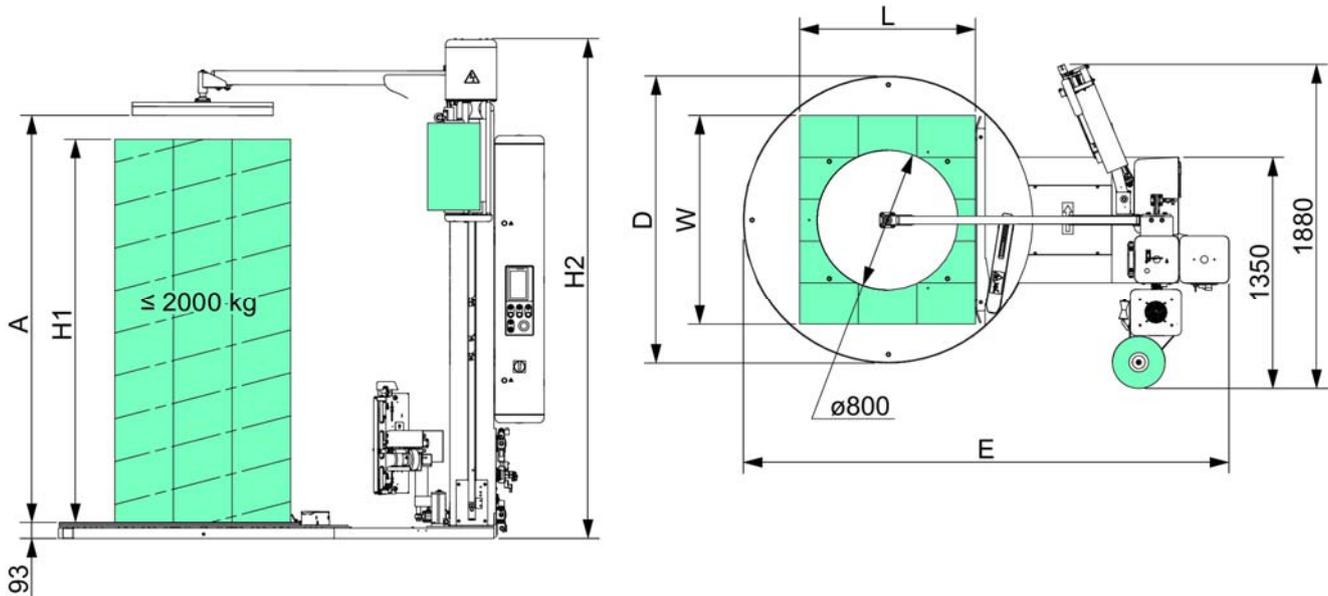
- Perimeter protections.



- Rotating table with **2500 kg** capacity: allows uploading of products up to **2500 kg**.
- Rotating worktable **ø 1800**: used to wrap pallets that are larger than standard ones.
- Film spool shaft **ø 50**.
- Spool carriage for reels **Coreless**.
- Additional drawing gears (For trolley **PDS**): **150%, 200%, 250%, 300%**.
- Power supply other than standard.

### 3.7. TECHNICAL SPECIFICATIONS TECHNOPLAT CS-CW

The figure and table specify the dimensional characteristics and technical data of the machine.



#### 3.7.1. MACHINE AND PALLET DIMENSIONS

H1 (mm)	A (mm)	H2 (Max) (mm)	D (mm)	L (mm)	W (mm)	E (mm)
2200 2400	2350 2550	2890 3090	1650	1000	1200	2780
2800 3100	2950 3250	3490 3790	1800	1200	1200	2855

#### 3.7.2. MACHINE TECHNICAL SPECIFICATIONS

Description		Units of measurement	EU	USA
Supply voltage		V	220÷240 1Ph 220÷240 3Ph 380÷415 3Ph+N	120 + GND
Electrical supply frequency		Hz	50/60	60
Installed power	Technoplat 308 Technoplat 508 Technoplat 708	kW	2.1 2.5 2.9	2.1 2.5 2.9
Absorption	Technoplat 308 Technoplat 508 Technoplat 708	A	8.7 10.4 12	- 22.7 22.7
Table rotational speed	D = 1650 D = 1800	rpm	5÷12 5÷11	5÷12 5÷11
Carriage up/down speed		m/min.	1,5÷5,5	1,5÷5,5
Maximum load		kg	2000	2000
Total weight		kg	600÷760	600÷760

Air consumption	NI/min.	200	200
Ambient operating temperature	°C	5÷40	5÷40
Installed power with mechanical presser	kW	+0,4	+0,4
Absorption with mechanical presser	A	+1,7	+1,7

### 3.7.3.PRESSER TECHNICAL SPECIFICATIONS

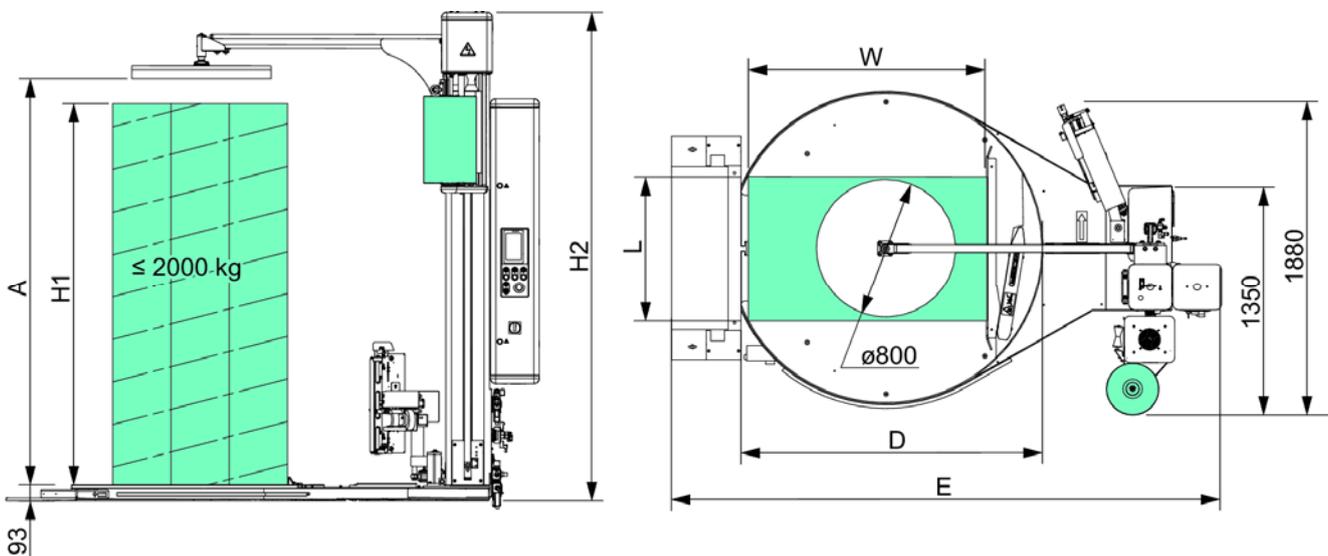
Description		Value
Operating pressure.		6 (±1) bar (0,6±0,1 MPa)
Rod pneumatic cylinder.	H=2200/2400 2800/3100	Air consumption 11 NI/min.

### 3.7.4.COMPRESSED-AIR CREASING DEVICE TECHNICAL FEATURES

Description		Value
Operating pressure.		6 (±1) bar
No rod cylinder.	H=450	Air consumption 2 NI/min.

## 3.8. TECHNICAL SPECIFICATIONS TECHNOPLAT CS-CW TP

The figure and table specify the dimensional characteristics and technical data of the machine.



### 3.8.1.MACHINE AND PALLET DIMENSIONS

H1 (mm)	A (mm)	H2 (Max) (mm)	D (mm)	L (mm)	W (mm)	E (mm)
2200 2400	2350 2550	2890 3090	1650	1200	1000	2780
2800 3100	2950 3250	3490 3790	1800	1200	1200	2850

### 3.8.2.MACHINE TECHNICAL SPECIFICATIONS

Description		Units of measurement	EU	USA
Supply voltage		V	220÷240 1Ph 220÷240 3Ph 380÷415 3Ph+N	120 + GND
Electrical supply frequency		Hz	50/60	60
Installed power	Technoplat 308 Technoplat 508 Technoplat 708	kW	2.1 2.5 2.9	2.1 2.5 2.9
Absorption	Technoplat 308 Technoplat 508 Technoplat 708	A	8.7 10.4 12	- 22.7 22.7
Table rotational speed	D = 1650 D = 1800	rpm	5÷12 5÷11	5÷12 5÷11
Carriage up/down speed		m/min.	1,5÷5,5	1,5÷5,5
Maximum load		kg	2000	2000
Total weight		kg	600÷760	600÷760
Air consumption		NI/min.	5	5
Ambient operating temperature		°C	5÷40	5÷40
Installed power with mechanical presser		kW	+0,4	+0,4
Absorption with mechanical presser		A	+1,7	+1,7

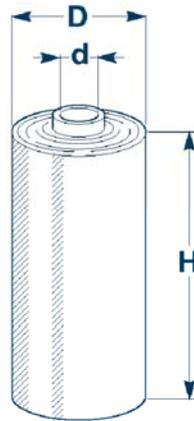
### 3.8.3.PRESSER TECHNICAL SPECIFICATIONS

Description		Value
Operating pressure.		6 (±1) bar (0,6±0,1 MPa)
Rod pneumatic cylinder.	H=2200/2400 2800/3100	Air consumption 11 NI/min.

### 3.8.4.COMPRESSED-AIR CREASING DEVICE TECHNICAL FEATURES

Description		Value
Operating pressure.		6 (±1) bar
No rod cylinder.	H=450	Air consumption. 2 NI/min.

### 3.9. COIL TECHNICAL SPECIFICATIONS



#### 3.9.1. REEL FEATURES

Description	Units of measurement	Value
<b>Film spool dimensions (A)</b>		
Maximum external diameter (D)	mm	300
Reel height (H)	mm	500
Film thickness.	µm	17÷35
Internal diameter (d)	mm	76
Max weight.	kg	20

### 3.10. NOISE LEVEL

The noise levels were measured in compliance with the standards:

- **ISO 4871**
- **ISO 11201**

Description	Measured level of A weighted emission sound pressure, in the operator position (LpA)
Functioning in working conditions.	69,3 dB (A)



#### **Caution - Warning**

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

### 3.11. 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 reasons (See "surrounding areas").
- a flat surface, steady and without vibrations with adequate weight supporting capacity, also in consideration of the palletised loads to be wrapped.
- The area should have adequate outlets for the distribution of both the compressed air and electricity.



**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.

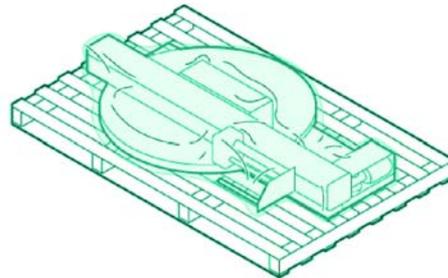
The cases are marked with all necessary information for loading and unloading.

During unpacking, check the integrity and exact quantity of components.

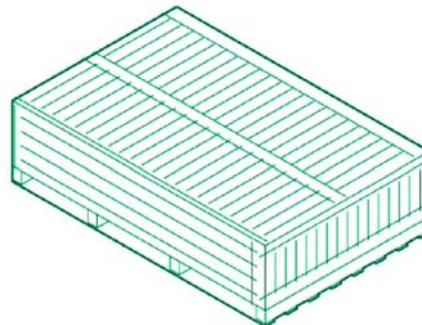
Packaging material should be appropriately disposed according to the laws in force.

The figures show the most commontypes of packages.

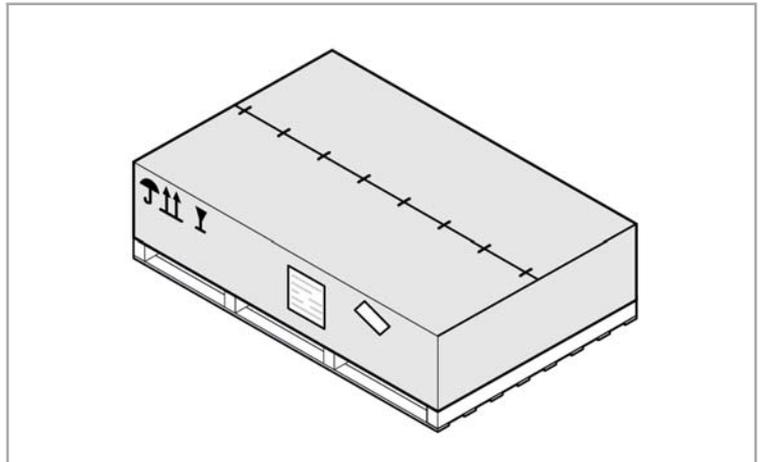
#### Packaging on pallet with protective nylon



#### Package in crate



### Cardboard box packaging



### 4.3. TRANSPORT AND HANDLING

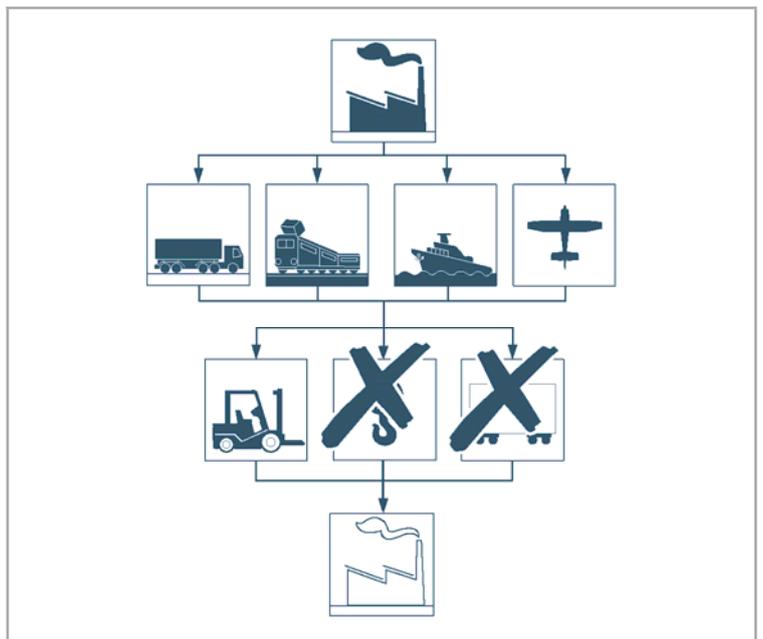
Transport, also according to the destination, can be performed by different vehicles. The diagram represents the most popular solutions.

During transport, with the purpose to avoid sudden movements, adequately anchor the machinery to the means of transportation.



#### Important

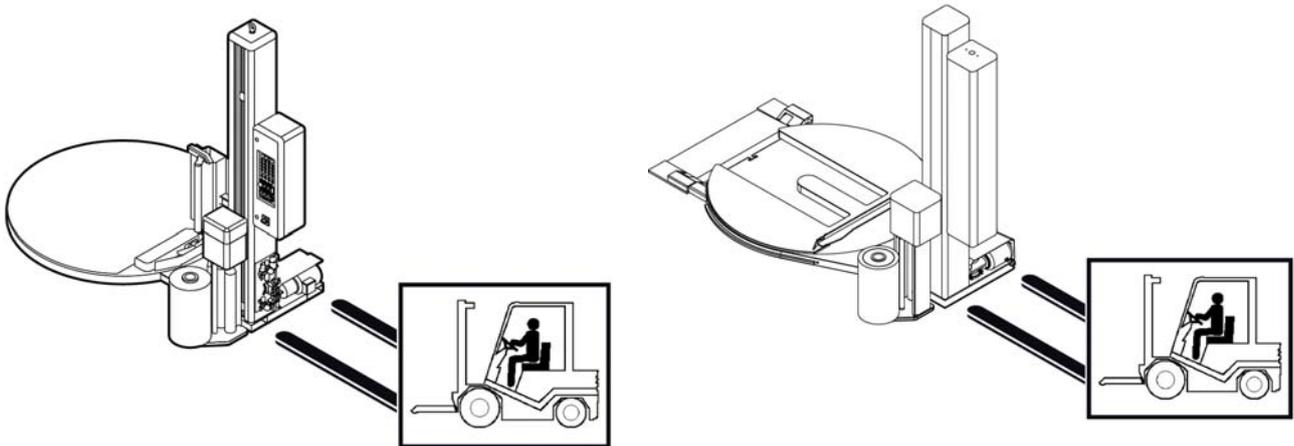
For further transportation, recreate the initial packaging conditions for transport and handling.



## 4.4. HANDLING AND LIFTING

The machine can be moved with a forklift with suitable load capacity by inserting the forks in the points indicated directly on the machine.

The transport and lifting equipment must be operated by an authorised person qualified to use the equipment in question.



## 4.5. MACHINE INSTALLATION

The installation must take place in an area that has the requisites as set out in paragraph "Characteristics of the installation area".

If necessary, determine the exact position by tracing the coordinates and correctly position.



### Danger - Warning

Authorised technical service personnel must perform installation and assembly operations.

Proceed as indicated:

1. Insert the fork lift's forks in the specially designed spaces provided in the base.
2. Lift the machine from the load surface (if present).



### Danger - Warning

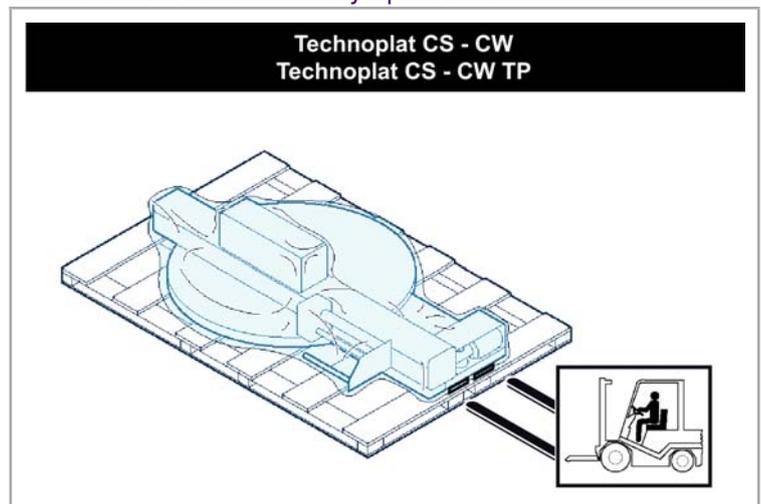
To perform the operation in safety, insert some wooden spacers below the forks of the lift truck and position all to the floor.

3. Place the machine in the area assigned for assembly.



### Important

It must be placed on a smooth, level surface for assembly.

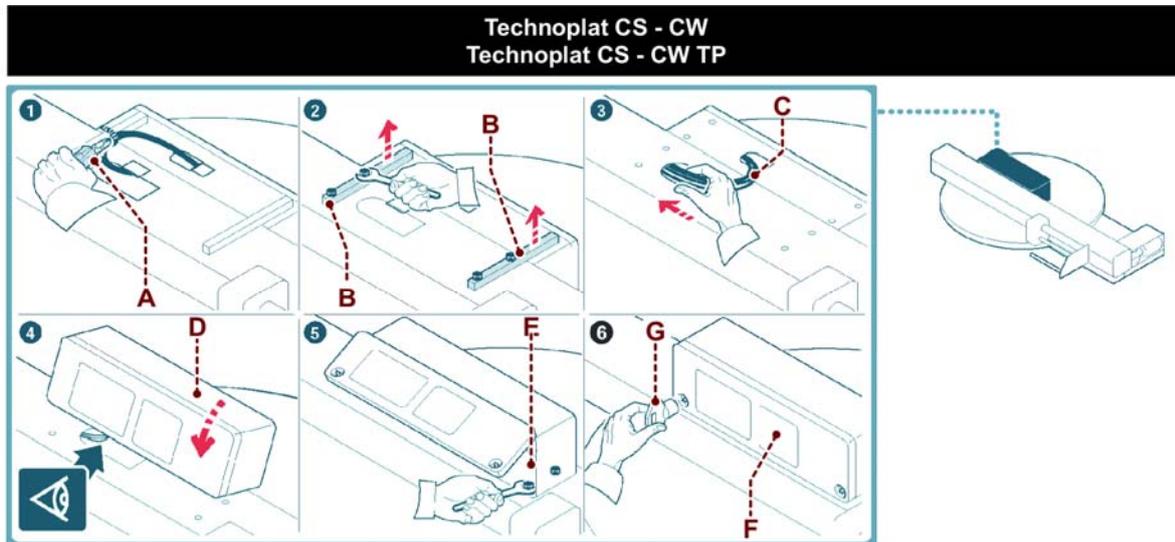


### 4.5.1. ELECTRICAL BOX ASSEMBLY

Proceed as indicated.

1. Cut the band **(A)** that holds the electrical wires together.
2. Disassemble the fastening brackets **(B)**.
3. Insert the electrical wires **(C)** inside the sliding shaft.
4. Lift the electrical box **(D)**.
5. Fasten the electrical box to the slide mast using the screws **(E)**.

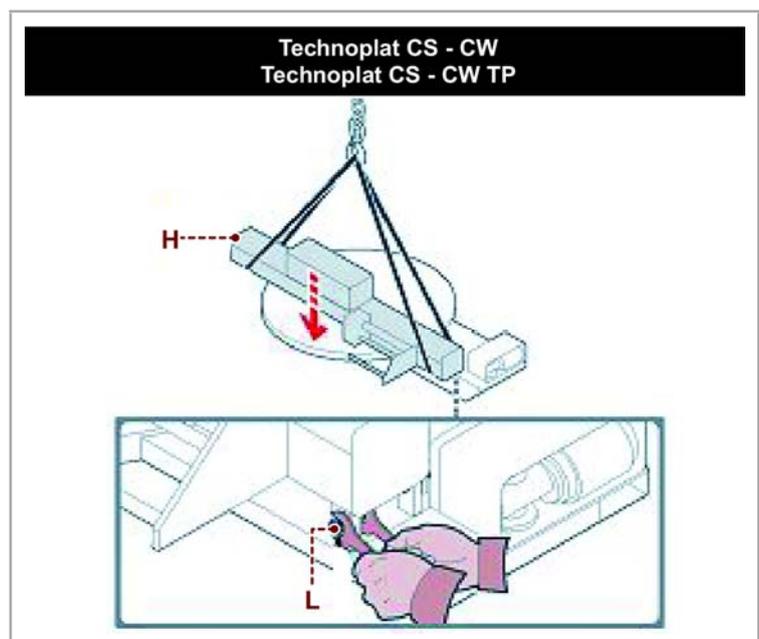
6. Close cover (F) of the electrical box (D) using wrench (G).



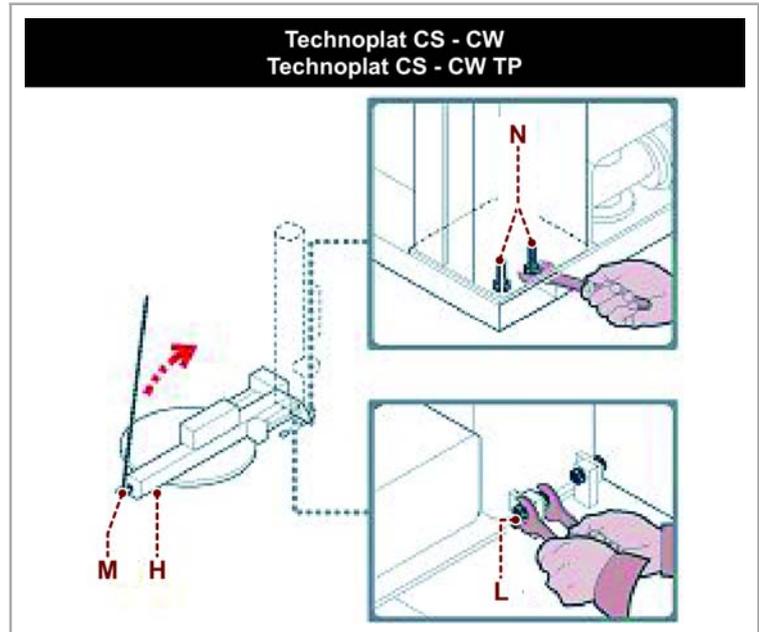
#### 4.5.2.SLIDE GUIDE MAST ASSEMBLY

Proceed as indicated.

1. In certain configurations it is necessary to raise and position the sliding mast (H) above the rotating table at the hinge.
2. Insert the screws (L) in the hinge without tightening them.

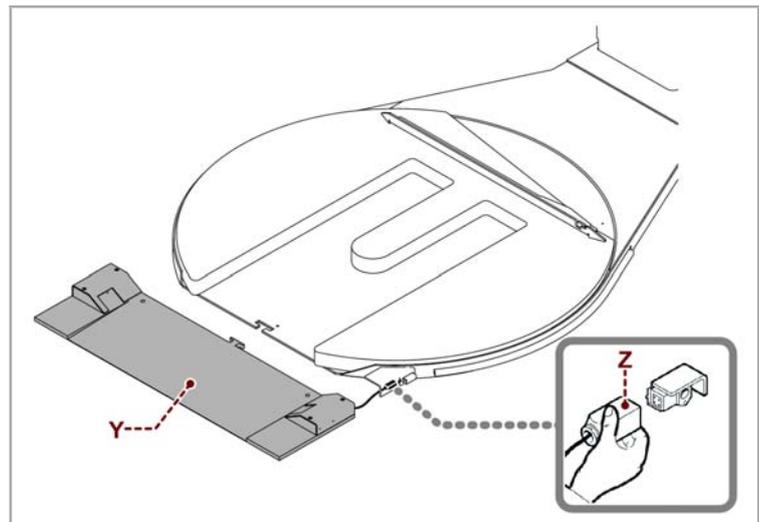


3. Secure the hook of the lifting equipment to the bracket **(M)** of the sliding mast and tension it.
4. Lift the sliding mast **(H)**.
5. Secure the sliding mast to the machine body with the screws **(N)**.
6. Tighten the hinge screws **(L)**.



#### 4.5.3. LOADING/UNLOADING RAMP ASSEMBLY (TP VERSION)

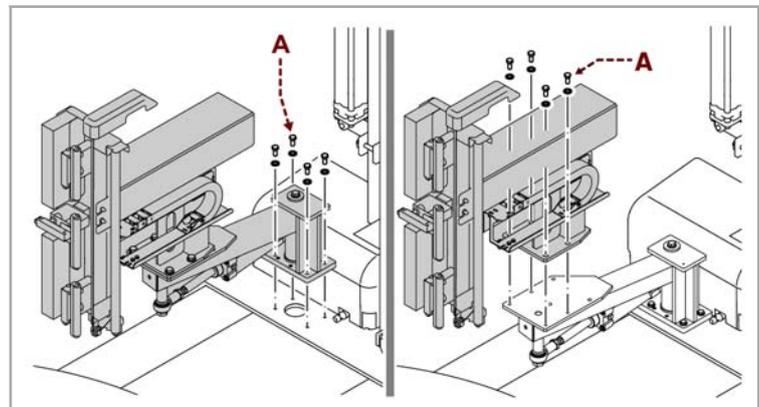
Assemble the platform loading/unloading ramp **(Y)** and connect the supply connector **(Z)**.



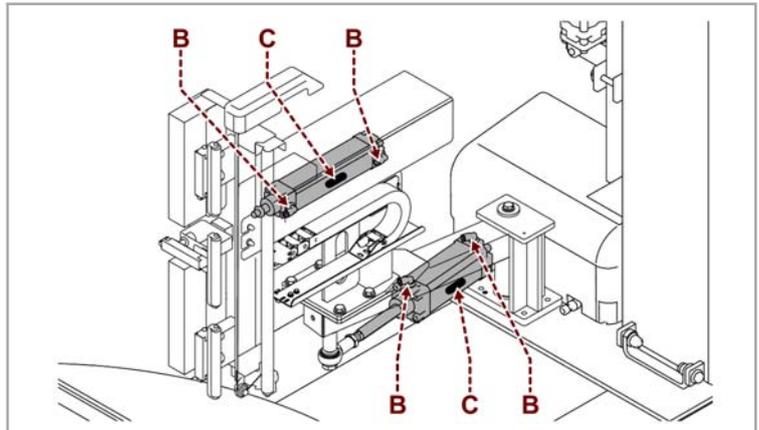
#### 4.5.4. ASSEMBLY OF THE CUTTING UNIT/SEALING UNITS

Depending on the configuration, the cutting/sealing arm should be assembled before the machine is started.

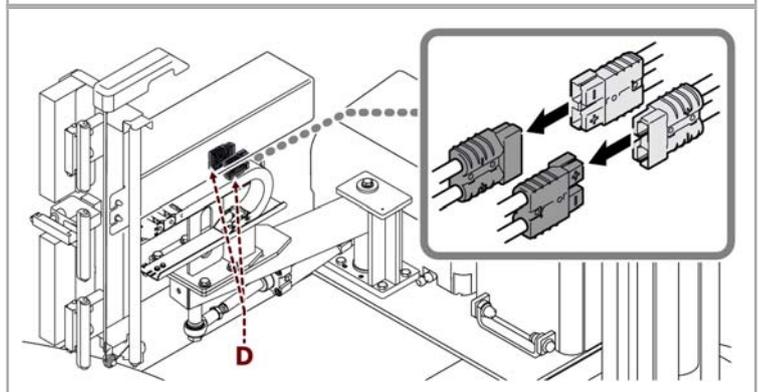
1. Proceed as indicated.  
Fix the sealing unit by tightening the screws **(A)**.



2. Perform pneumatic connections **(B)** being careful to connect fittings and tubes marked with the same number.
3. Connect the sensors **(C)** to the cylinders marked with the same number.

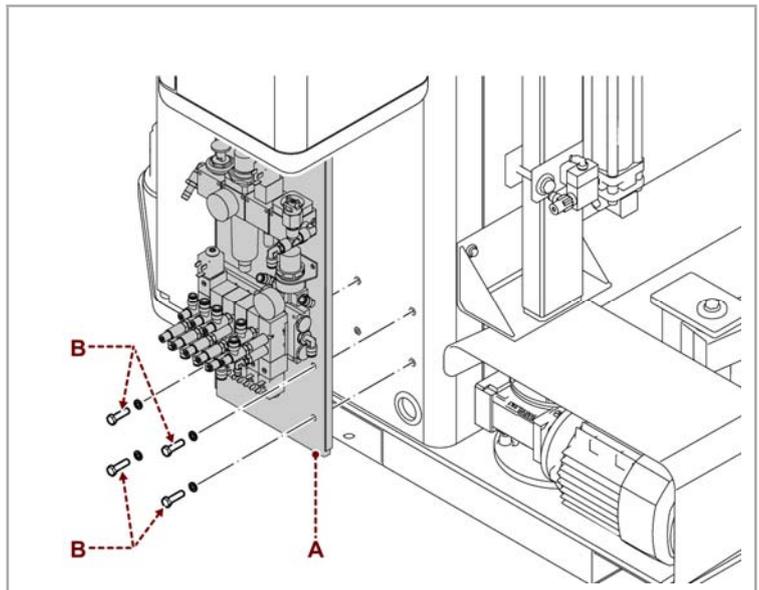


4. Connect the **(D)** cutting and/or welding connectors.



#### 4.5.5.ASSEMBLY OF THE PNEUMATIC PANEL

1. Fix the disk **(A)** with the screws **(B)**.

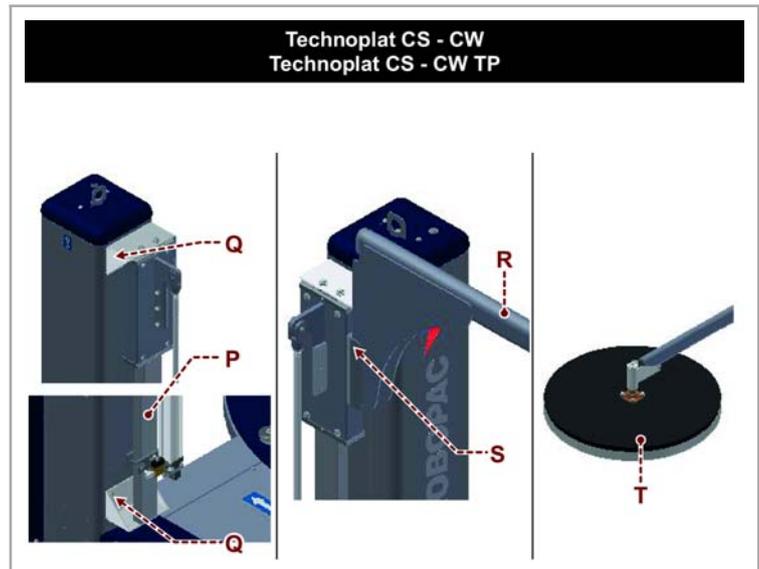


#### 4.5.6. PNEUMATIC PRESSER ASSEMBLY (OPTIONAL)

1. Fasten the guide (**P**) to the slide guide mast with the screws (**Q**).
2. Assemble the arm (**R**) to the guide and fasten with the screws (**S**).
3. Assemble the presser plate (**T**) to the arm.

**! Important**

If the pressure platen is delivered with the machine, the pneumatic connections have already been performed by the manufacturer.

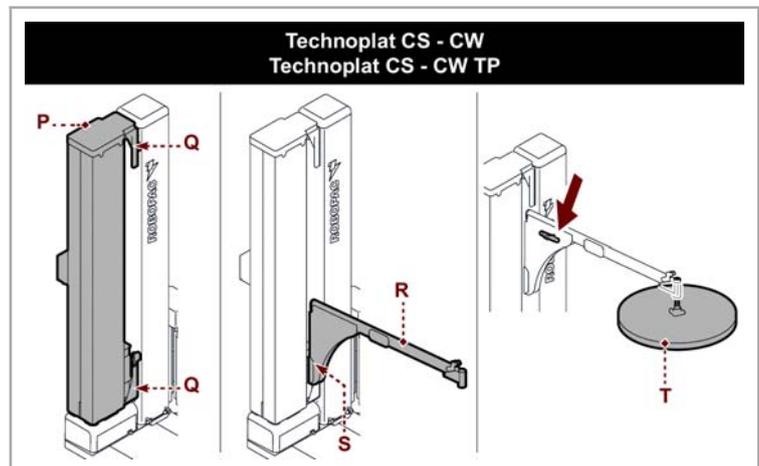


#### 4.5.7. ASSEMBLY OF THE MECHANICAL PRESSURE PLATEN (OPTIONAL)

1. Fasten the guide (**P**) to the slide guide mast with the screws (**Q**).
2. Assemble the arm (**R**) to the guide and fasten with the screws (**S**).
3. Assemble the presser plate (**T**) to the arm.

**! Important**

If the pressure platen is supplied with the machine the connections have already been made by the Manufacturer.

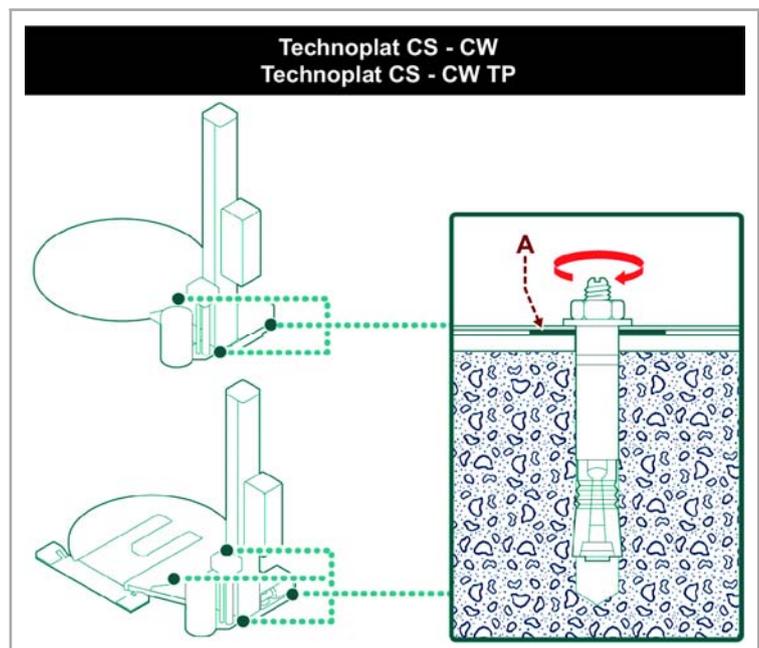


#### 4.6. FASTENING THE MACHINE

- When you have finished assembling the units and checking the levels, squaring, parallelism, and orthogonal shape, you must fasten the machine body onto the floor.
- 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.

**! Important**

If necessary, insert metal plates (**A**) between the screws and the floor.



## 4.7. SETTING THE MACHINE INTO THE GROUND

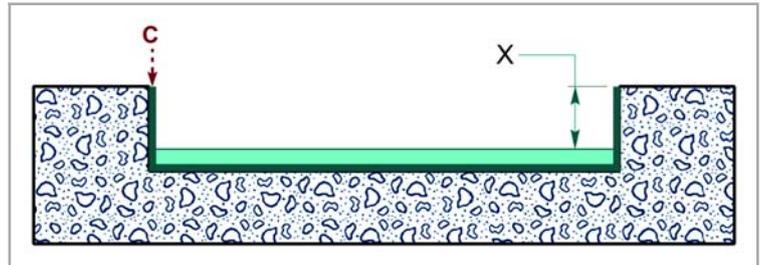
Dig out a ditch in the floor in which to place the template **(C)** and cast cement to fasten it into place.

Template **(C)** is supplied on request (Optional).



### Important

The depth **(X)** must be equal to the height of the machine's base plate.



## 4.8. RECOMMENDATIONS FOR CONNECTIONS



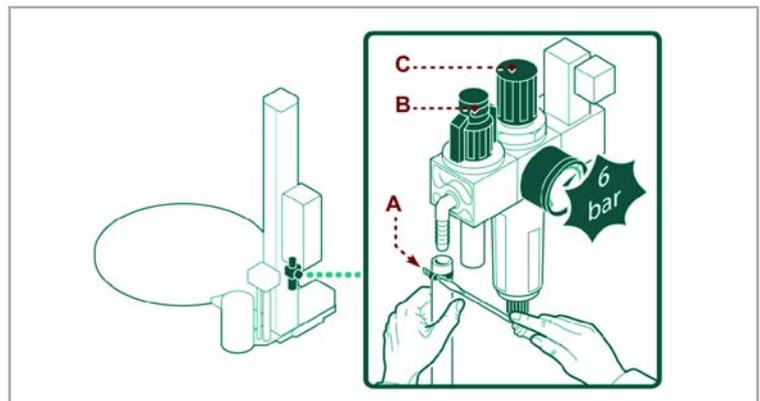
### Important

Connections should be performed following the manufacturer's indications in the enclosed diagrams. Personnel authorised to perform this operation must possess technical skills, abilities and have acquired certified experience in the specific field and must perform connections professionally, taking into account all the regulative and legislative requirements. When connections are completed, make sure these requisites were observed by performing a general inspection before making the unit operative.

## 4.9. PNEUMATIC CONNECTIONS

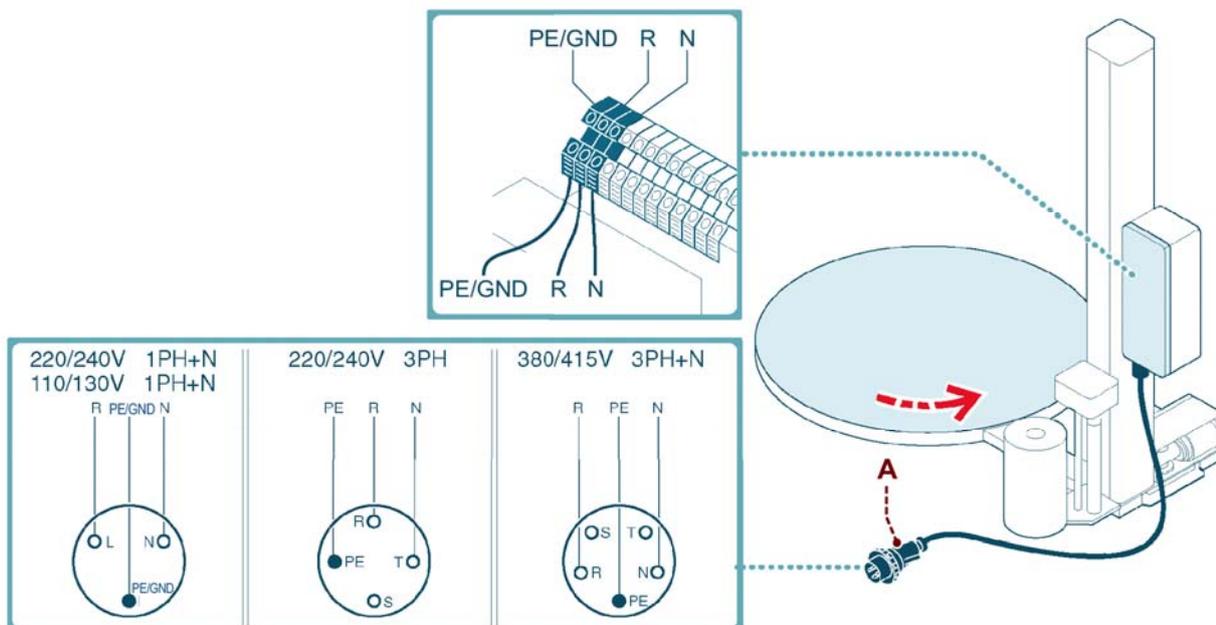
Proceed as indicated.

1. Insert a flexible tube on the end of the rubber fitting and fasten it with a metallic screw clamp **(A)**.
2. Check that the valve **(B)** is in the "OPEN" position.
3. Turn on the power supply line.
4. Check that the manometer reads a pressure of at least **6 bar** and turn knob **(C)** to compensate any pressure differences.  
Repeat this operation with the machine running.



## 4.10. 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 cable (if supplied) to the plug (**A**), as shown in the illustration, according to the mains supply.
4. The earth wire (yellow and green) must be connected to its earth terminal **PE**.
5. Turn on machine with main switch.
6. Press the Reset button.
7. If you push the "Start" button, the plate must rotate counterclockwise.

## 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**.

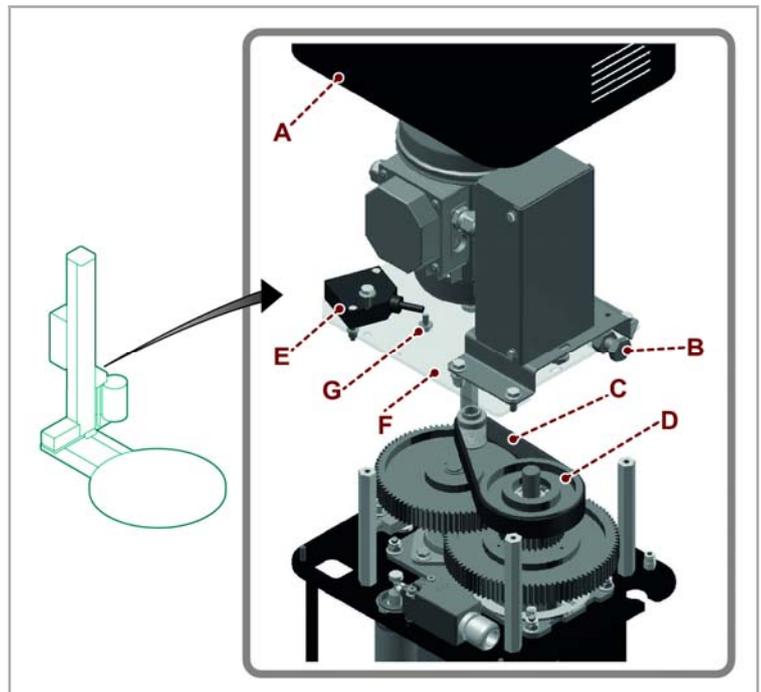
### 5.2. ADJUSTING FILM "STRETCH"

Proceed as indicated.

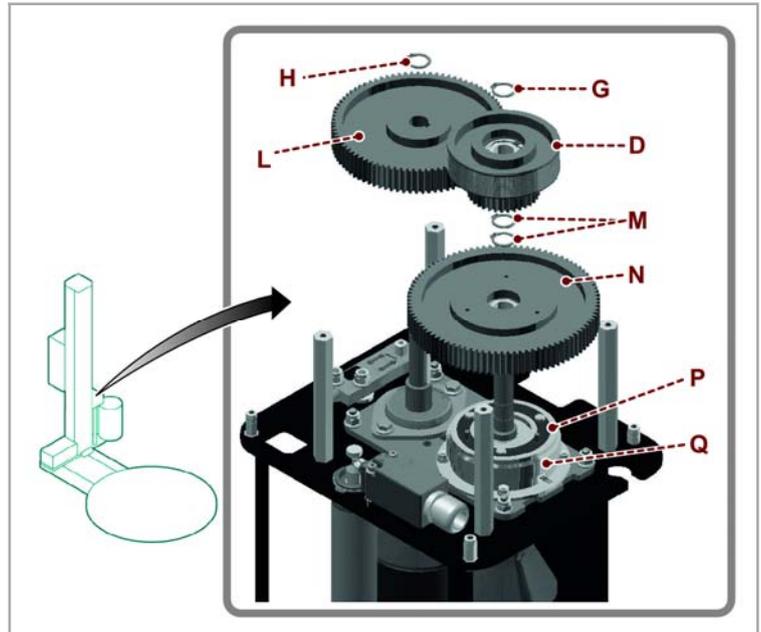
#### 5.2.1. "PDS" TYPE REEL CARRIAGES (REPLACE THE DRAWING GEARS)

Proceed as indicated.

1. Stop the machine in safety conditions.
2. Remove transmission cover (A).
3. Loosen the belt (C) through the tensioner (B).
4. Remove the belt from the pulley (D).
5. Loosen the screws (E).
6. Remove the disk (F) including the motor and bearings.



7. Remove the stopping ring (**G**).
8. Remove the pulley (**D**).
9. Remove the stopping ring (**H**).
10. Remove the gear (**L**).
11. Remove the stopping ring (**M**).
12. Remove the gear (**N**).
13. Loosen the screws and remove the small plate (**P**) from the gear (**N**).
14. Select the couple of gears (**L-N**) relating to the pre-stretch percentage involved (see the table).



The table lists the pre-stretch values obtainable with the relevant driving ratio.



**Important**

Set the pre-stretch depending on the resistance and the quality of the coating to obtain low consumption.

Pre-stretch percentage	Gear code (L)	Gear code (N)
150%	(*)	(*)
200%	(*)	(*)
250%	(*)	(*)
300%	(*)	(*)

(\*) See spare parts catalogue.

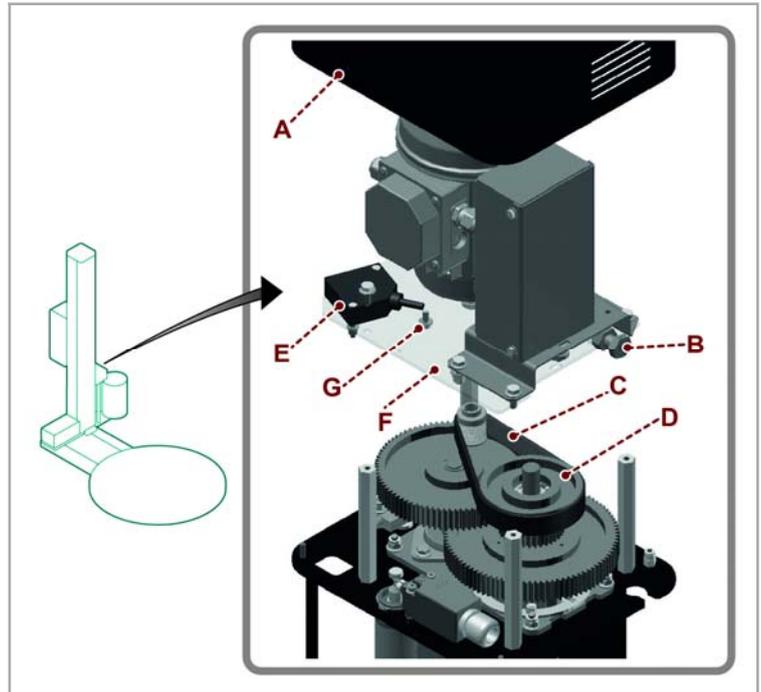
15. Assembly the small plate and correctly fix it to the gear of the new driving ratio.
16. Assembly the gear of the new driving ratio.
17. Position the gear with the side of the small plate coupled to the friction.
18. Assembly the stopping ring.
19. Assembly the gear of the new driving ratio.
20. Assembly the stopping ring.
21. Assembly the pulley.
22. Assembly the stopping ring.



**Important**

During re-assembly remember to pay attention to the proper insertion of the coupling tabs.

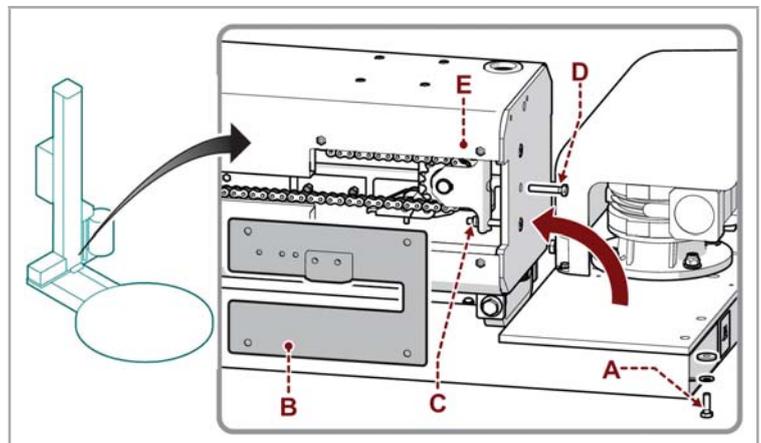
23. Rest the disk on the little columns paying attention to assemble the belt on the pulley.
24. Tighten screws **(E)**.
25. Tension the belt through the tightener.
26. Rotate manually the pre-stretch rollers in both directions to completely adjust the coupling between the belt and the pulleys.
27. Again check the tension of the belt and if needed strain it properly.
28. Re-assemble the casing **(A)** at the end of the operation.



### 5.3. REEL CARRIAGE LIFTING CHAIN ADJUSTMENT

Proceed as indicated.

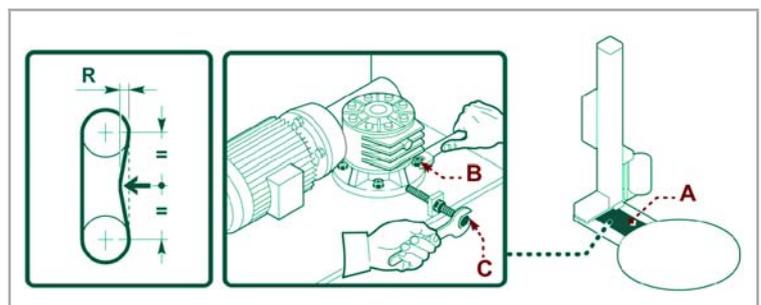
1. Lift the spool carriage (with machine operation set to "manual mode") up to "top" end stroke.
2. Switch the machine off.
3. Loosen the screws and tilt the stake resting it on the plate.
4. Remove the guard **(B)**.
5. Loosen the nuts **(C)**.
6. Tighten the screw **(D)** "M8x50 UNI 5739" (element not supplied) with a torque wrench (element not supplied) up to the torque **3 Nm**.
7. Re-tighten the nuts up to the surface of the chain tightening pulley.
8. Undo screw **(D)**.
9. Refit the guard **(B)**.
10. Re-position the stake vertically and tighten the screws.



### 5.4. TABLE ROTATION CHAIN ADJUSTMENT

Proceed as indicated.

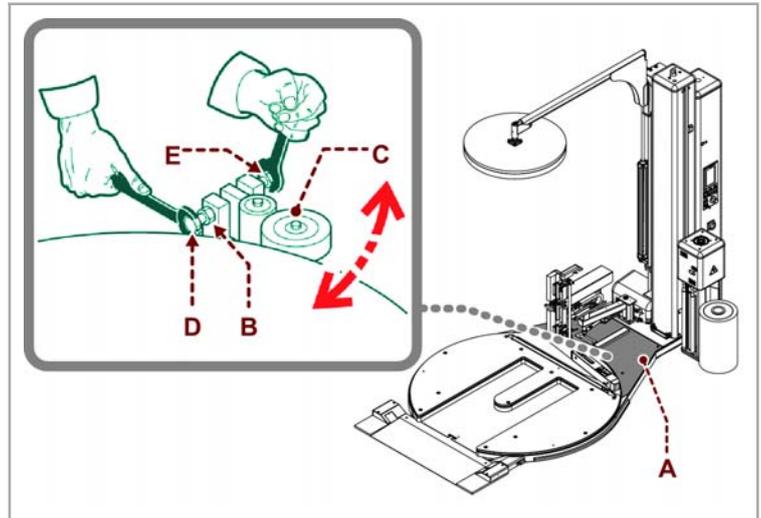
1. Remove the cover guard **(A)**.
2. Loosen the fastening screws **(B)** of the gear-box.
3. Tighten the screw with a torque wrench (element not supplied) up to the torque.
4. Tighten the reducer fastening screws **(B)** when finished.
5. Refit guard **(A)**.



## 5.5. ADJUSTMENT OF TABLE GUIDE ROLLERS

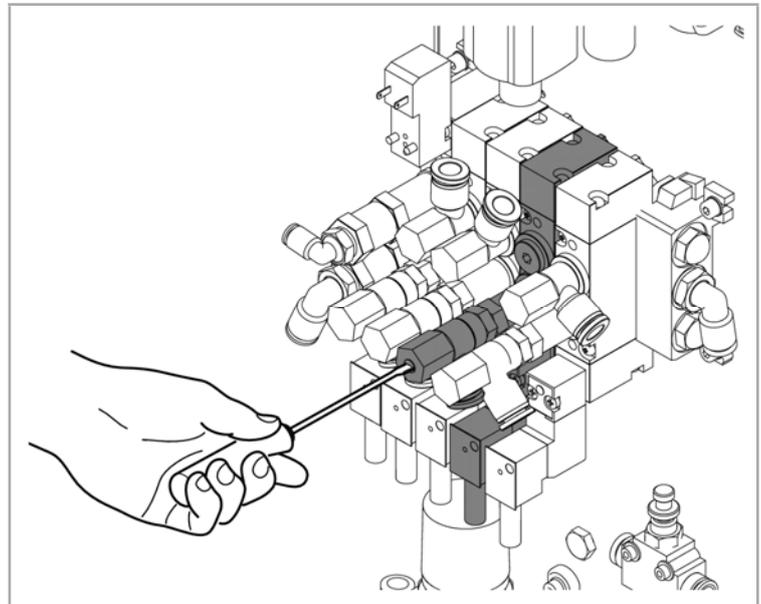
Proceed as indicated.

1. Remove the cover guard **(A)**.
2. Loosen the fastening nuts **(B)**.
3. Loosen the screw **(E)**.
4. Adjust screw **(D)** so that wheel **(C)** is pressed on rotary plate by about **4 mm**.
5. Tighten the screw **(E)**.
6. Tighten the nuts **(B)**.
7. Refit guard **(A)**.



## 5.6. CLAMP CLOSING ADJUSTMENT

Adjust the aperture of the flow regulator of the clamp's control solenoid valve (see. "Pneumatic layout") so that its closure time is within **1-2** seconds.



## 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.



#### Important

Accident frequency derived from machine use depends upon many factors that cannot always be foreseen and controlled.

Some accidents are the consequence of environmental factors that cannot be foreseen, others are especially the consequence of the users' behaviour.

At the first start up - being authorized and duly informed - they must simulate, if necessary, some manoeuvres to identify the main controls and functions.

Only implement the uses intended by the manufacturer and do not tamper with any device to obtain performances different from the intended ones.

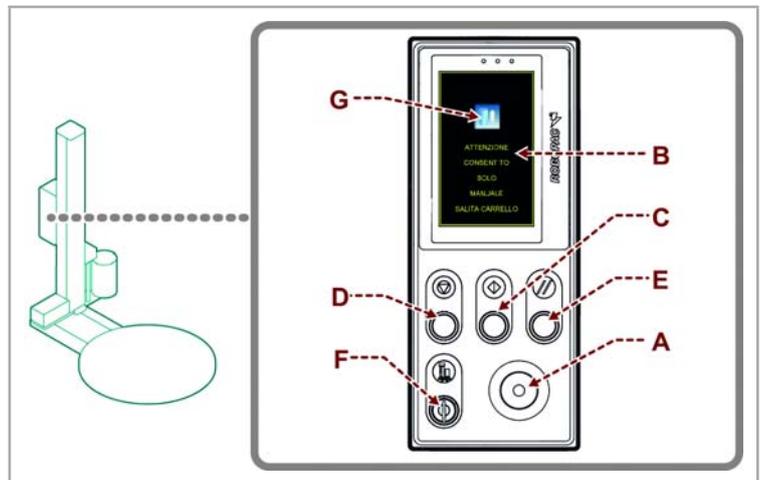
Before using the machinery check that all safety devices are in good working order and correctly installed.

The users, as well as committing to comply with these requirements, must apply all the safety rules and carefully study the description of the controls and the commissioning of the machinery.

### 6.2. CONTROL DESCRIPTION

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 risk.  
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.  
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)** Key selector for emergency interruption: it is used to momentarily interrupt the emergency of the trolley.  
Turn the key to the position (JOG), the user interface shows the page on "Safety interrupted" which allows, by pressing the push-button, to lift the trolley only.



### 6.3. DESCRIPTION OF THE USER INTERFACE

The user interface is equipped with an active matrix colour "touch-screen" display. Just "touch with a finger" the areas of the display to view the various functions.

The illustration shows the logic functional diagram of "navigation" modes.

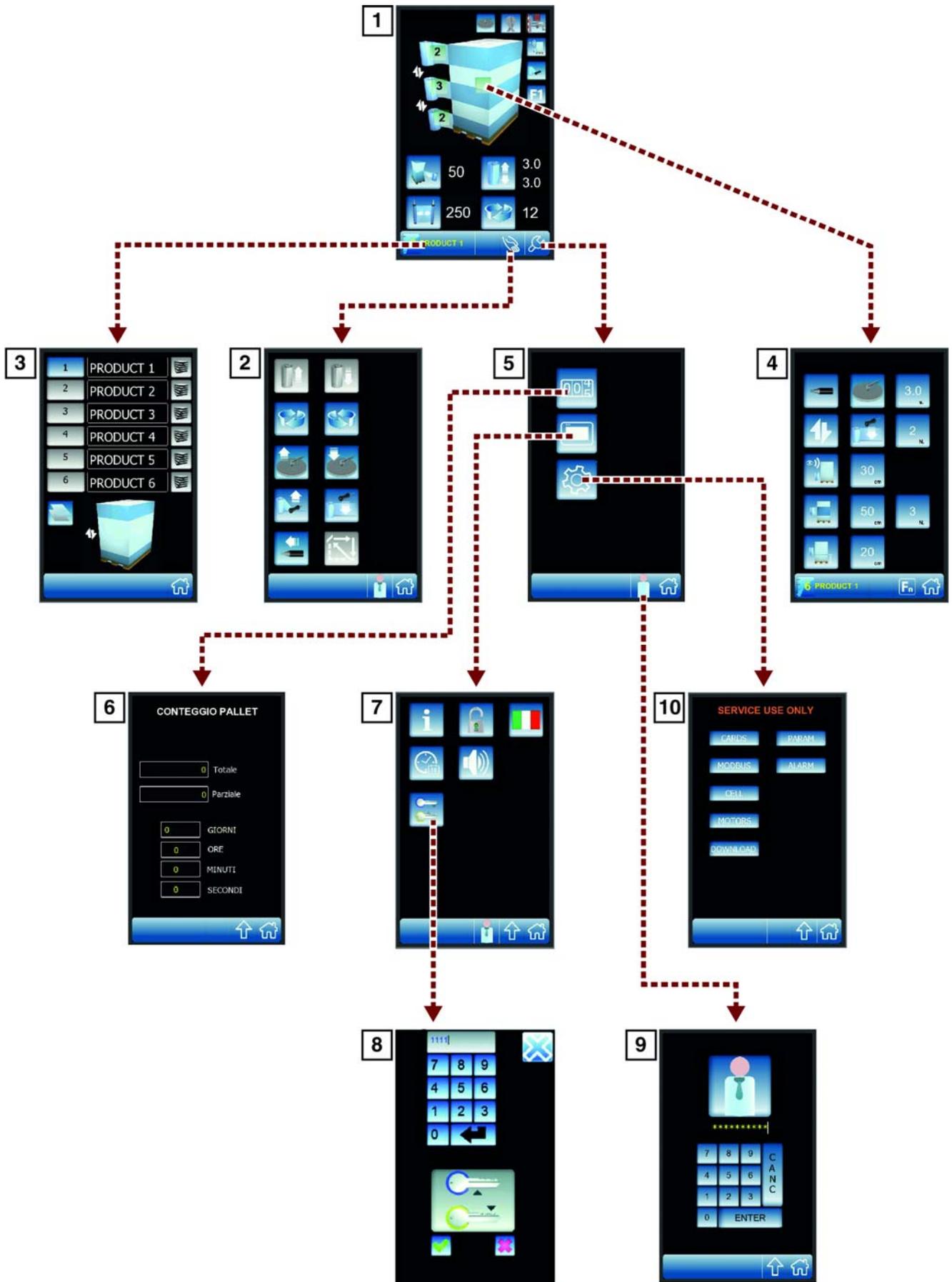
There are two automatic wrapping cycle controls: standard CONTROL and MULTI-LEVEL CONTROL (from the screen "layer home").

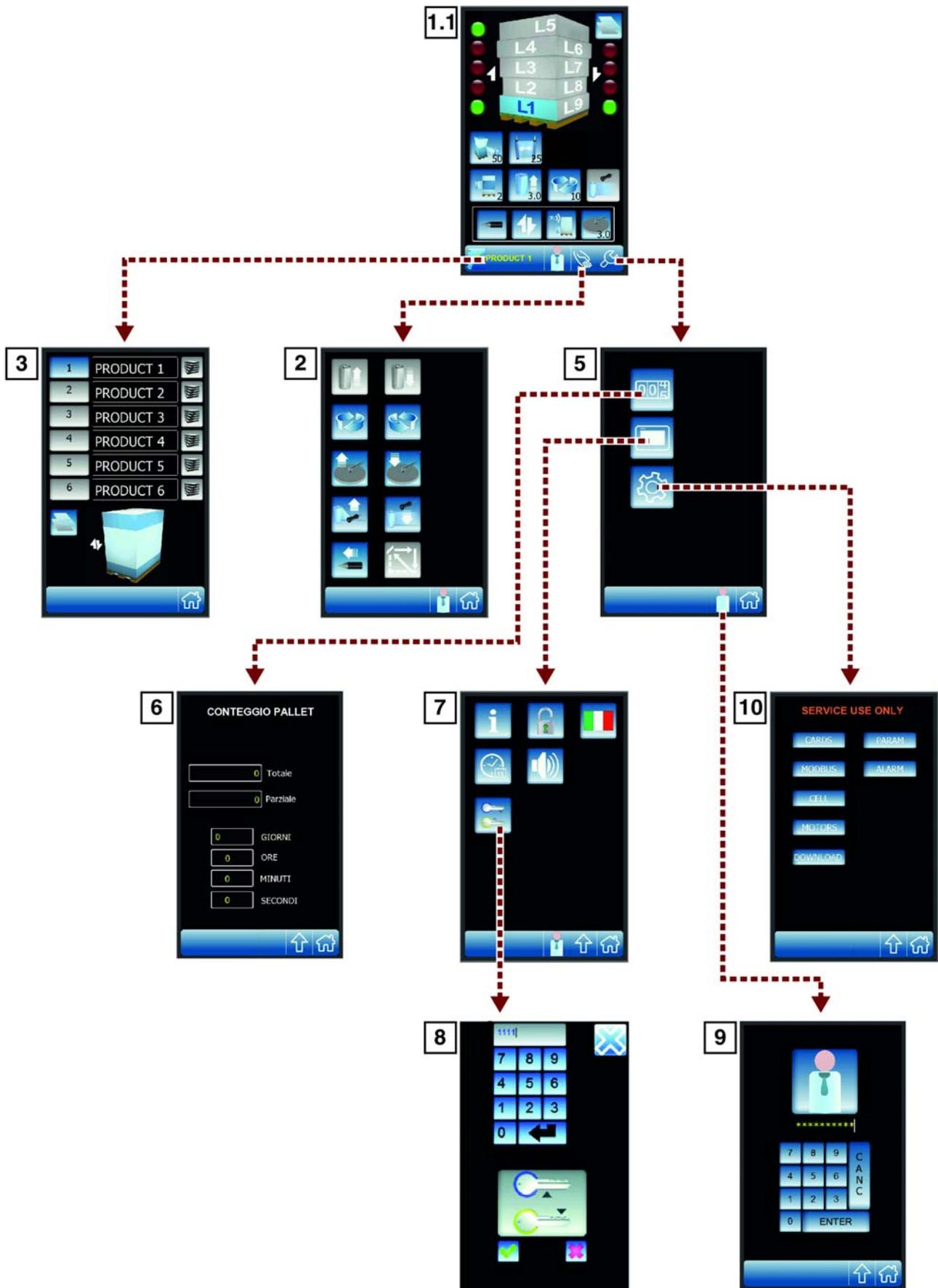
MULTI-LEVEL CONTROL allows you to divide the height of the product in **5** different levels, all of which can be adjusted in thickness, and for each one of them it is possible to regulate the tightness of the film, the drawing (on motorized carriages only), the reinforcements, the rotation speed of the machine and the speed of the carriage.

Each one of the **5** levels can be set with values depending on the direction of the carriage, which can also be different between ascent and descent.

<i>N.</i>	<i>Name</i>	<i>Function description</i>
1	"Home" screenshot.	The screenshot is displayed at the activation of the Reset control. The page displays the wrapping parameters currently in use and gives access the other pages.
1.1	"Home layers" screenshot.	The screenshot is displayed at the activation of the push-button on the right of the various recipes of the "Recipes" screenshot. The page displays the wrapping parameters currently in use and gives access the other pages.
2	"Manual handling" screenshot.	The screenshot shows he controls to activate the handling of functions in "manual mode".
3	"Recipes" screenshot.	The screenshot displays the controls to activate the desired recipe.
4	"Wrapping cycle" screenshot.	The screenshot displays the controls to program the wrapping cycle.
5	Screenshot "GENERAL PARAMETERS".	The screenshot displays the controls to program the configuration parameters of the machine.
6	"Production counters (pallets)" screenshot.	The screenshot displays the controls to check the quantity of pallets made (partial and total).
7	"Enabling (H.M.I.)" screenshot.	The screenshot displays the controls to customize the operating mode of the user interface".
8	"Password modification" screenshot.	The screenshot displays the controls to modify the access password to the protected functions.
9	"Password insertion (user login)" screenshot.	The screenshot displays the controls to insert the password (concerning the user selected) with the purpose of accessing the protected functions.
10	"Service" screenshot.	The screenshot is only reserved to the Manufacturer's Support Service to perform the diagnostics and the basic programming.

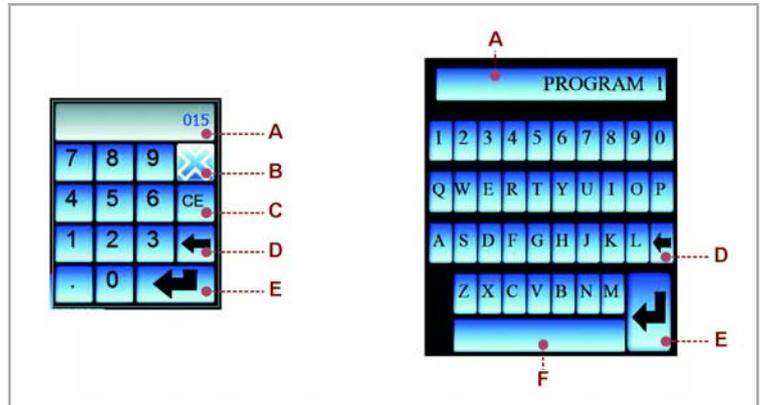
For details on the listed screenshots, consult the description shown on the specific paragraph.





### 6.3.1. NUMERIC AND ALPHANUMERIC KEYPAD

Some values displayed on the areas of each single screenshot can be properly programmed. The keypad is displayed each time you press an area that can be modified or programmed. After entering the characters (numeric or alphanumeric), press the button to confirm. The area selected shows the value.

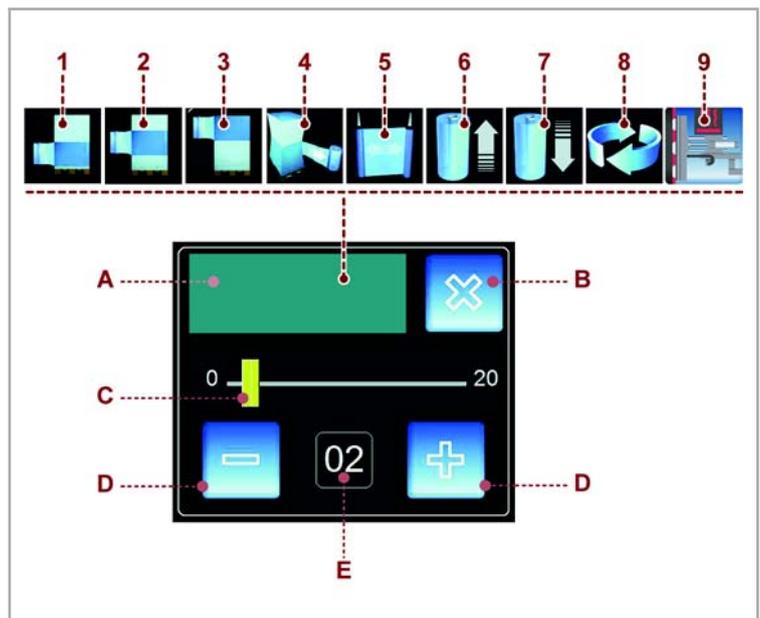


N.	Name	Function description
A	Displaying area.	The area displays the numeric and alphanumeric characters.
B	Switch.	The activation of the control closes the screenshot and the values entered are not stored.
C	Switch.	The activation of the control cancels the character selected.
D	Buttons.	The activation of the control cancels a character at a time (starting from the last on the right).
E	Switch.	The activation of the control stores the value or the text entered.
F	Switch.	The activation of the control performs the functions of the "spacing bar".

### 6.3.2. SCHEDULE WINDOW

The window is displayed each time an area that can be changed or programmed is pressed.

**A)** Area: displays the icon corresponding to the parameter to be programmed. The illustration shows a typical example of window and the table shows the description of icons.



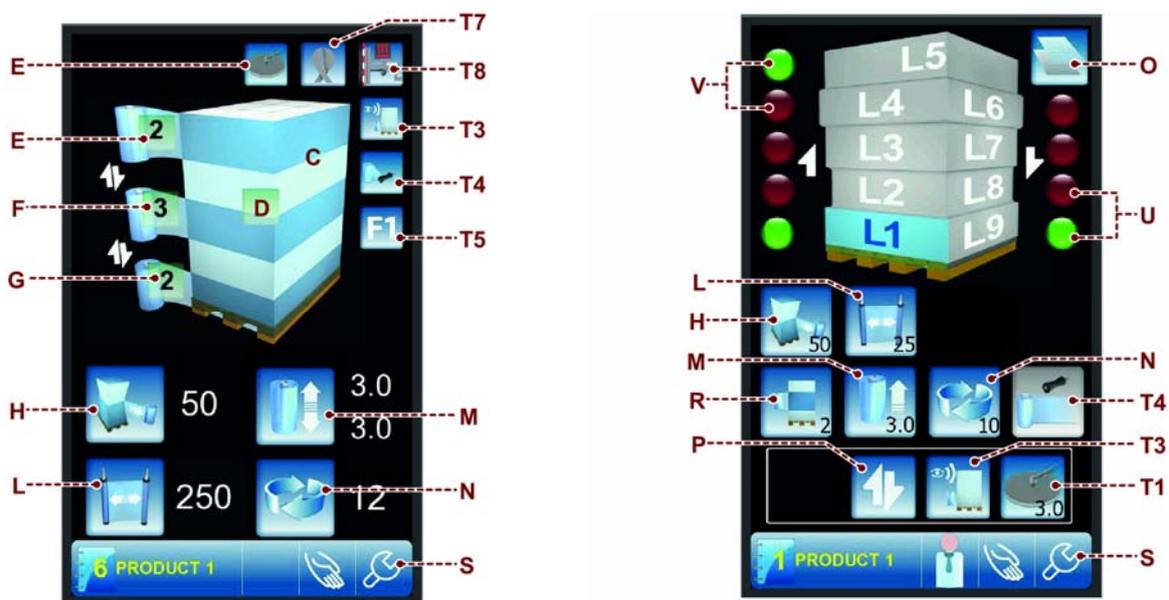
Icon	Function description
1	Lower wrapping.
2	Reinforcement wrapping.

3	Upper wrapping.
4	Coating stretching.
5	Coating pre-stretching.
6	Trolley lifting speed.
7	Trolley lowering speed.
8	Table rotational speed.
9	Sealing time.

- B)** Push-button: used to close the schedule window.
- C)** Bar: used to increase or decrease (quickly) the value displayed in the area **(E)**.
- D)** Push-buttons: used to increase or decrease (one unit at a time) the value displayed in the area **(E)**.
- E)** Area: displays the value of the parameter programmed.

## 6.4. "HOME" SCREENSHOT

The page displays the wrapping parameters currently in use and gives access the other pages.



- C)** Area: displays the preview of the pallet wrapping cycle selected.
- D)** Push-button: used to display the "Wrapping cycle" screenshot.
- E)** Push-button: used to program the quantity of wrapping at the upper end of the pallet. The number displayed indicates the value programmed.
- F)** Push-button: used to program the quantity of reinforcement wrapping in the middle area of the pallet. The number displayed indicates the value programmed.
- G)** Push-button: used to program the quantity of wrapping at the base of the pallet. The number displayed indicates the value programmed.
- H)** Push-button: used to program the stretch value of the coating. The number displayed indicates the value programmed.
- L)** Push-button: used to program the pre-stretch value of the coating (only for trolleys "PDS - "PVS"). The number displayed indicates the value programmed.
- M)** Push-button: used to program the vertical handling speed of the trolley. The number displayed indicates the programmed lifting or lowering value.
- N)** Push-button: used to program the wrapping speed of the machine. The number displayed indicates the value programmed.
- O)** Button: it is used to copy the data of one layer onto another.
- P)** Wrapping cycle.

- R)** Programming the reinforcement wrapping.
- V)** Buttons: in the “home layers” screen they refer to the layer with which the rising programming is enabled.
  - The lit up pushbutton indicates that the function has been enabled.
  - When off, the button signals the disabled function.
- U)** Buttons: in the “home layers” screen they identify the layer with which the descending programming is enabled.
  - The lit up pushbutton indicates that the function has been enabled.
  - When off, the button signals the disabled function.

Some keys **T** described below could be disabled/hidden depending on the configurations.

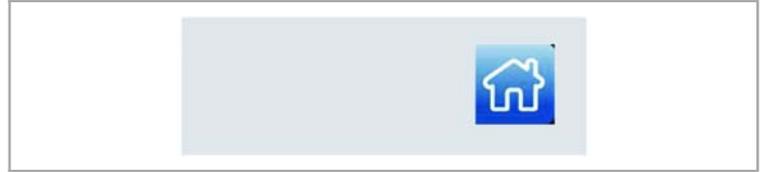
- T1)** Pressure platen.
- T3)** Altimeter.
- T4)** Creasing device.  
If the electric creasing device is available, you can set the folding percentage.
- T5)** **F1** Special cycle.
- T7)** Cycle with cutting disabled.
- T8)** Cycle with sealing disabled (**CW** version).
- S)** Tool bar.  
The tool bar is displayed on all the screens and contains only the keys that can be activated.

The list shows the description of the elements (push-buttons, icons, Etc...) displayed in the area.

- Push-button: used to display the "Recipes" screenshot.  
The number displayed indicates the activated recipe.
- Area: displays the name of the activated recipe.
- Push-button: used to display the "password insertion" screenshot.  
For further details consult the paragraph on "password insertion screenshot (user login)".
- Button: it is used to display the “Manual handling” page.
- Button: it is used to display the screenshot “General parameters”.
- Push-button: used to display the upper level screenshot.



- Push-button: used to display the "Home" screenshot.



## 6.5. "MANUAL HANDLING" SCREENSHOT

The controls to activate the vertical handling of the spool carriage in "manual" operation mode are displayed.

	<b>A)</b> Push-button (JOG): used to activate the lifting of the trolley.
	<b>B)</b> Push-button (JOG): used to activate the lowering of the trolley.
	<b>C)</b> Push-button (JOG): used to activate the rotation of the worktable clockwise.
	<b>D)</b> Push-button (JOG): used to activate the rotation of the worktable anti-clockwise.
	<b>E)</b> Push-button (JOG): used to activate the lifting of the presser arm.
	<b>F)</b> Push-button (JOG): used to activate the lowering of the presser arm.
	<b>G)</b> Push-button (JOG): used to activate the lifting of the creasing device.
	<b>H)</b> Push-button (JOG): used to activate the lowering of the creasing device.
	<b>I)</b> Push-button (JOG): used to activate the return of the trolley and the timing of the worktable.
	<b>J)</b> Push-button: used to display the "Home" screenshot.
	<b>K)</b> Push-button: used to open the gripper. Danger of crushing. Do not put your hands inside the gripper.
	<b>L)</b> Push-button: used to close the gripper. Danger of crushing. Do not put your hands inside the gripper.
	<b>M)</b> Push-button: used to move the cutting arm forward.

	<b>N)</b> Push-button: used to send the cutting arm backward.
	<b>O)</b> Push-button: used to move the rubber forward.
	<b>P)</b> Push-button: used to move the rubber backward.
	<b>Q)</b> Function disabled.
	<b>R)</b> Switch: to check the blower on the cutting arm.
	<b>S)</b> Switch: to check the blowers at the base.

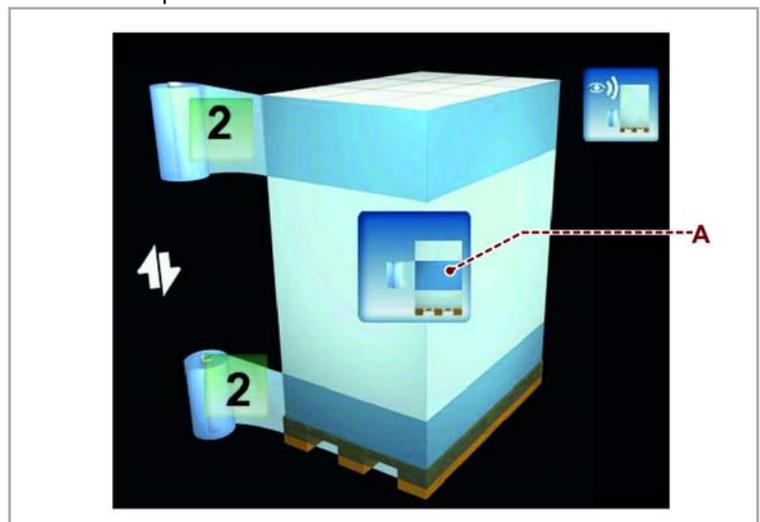
### 6.5.1.MANUAL REINFORCEMENT FUNCTION

**!** **Important**

It is not possible to carry out this function from layer recipes.

During the execution of a standard recipe, when the trolley is being lifted or lowered after carrying out the wrapping at the base of the bench or at the top end of the pallet, it is possible to carry out the middle wrapping manually by pressing the key **(A)** with two different procedures:

- Keep the key **(A)** pressed, the trolley stops carrying out reinforcement turns until the key is released.
- Repeatedly press the **(A)** key, the trolley carries out as many reinforcement turns as the number of times the key is pressed (**1÷9** turns).



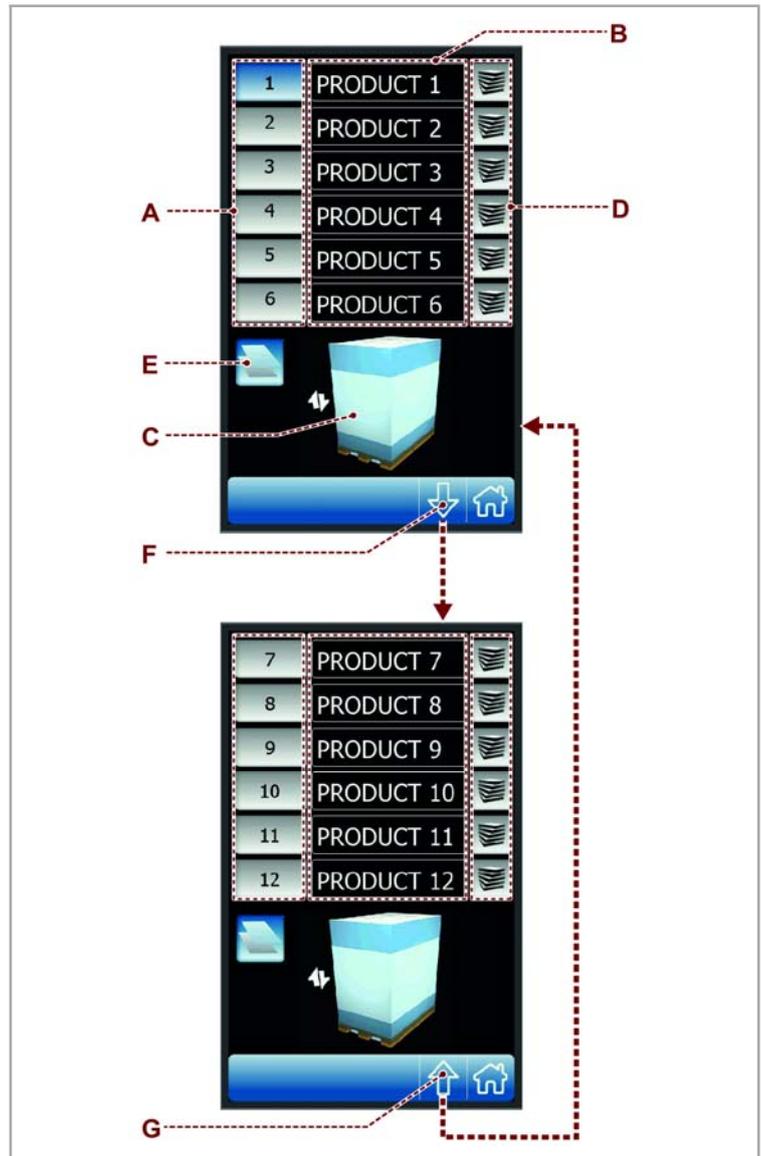
**!** **Important**

The push-button is only visible when the machine is running in automatic mode.

## 6.6. "RECIPES" SCREENSHOT

The screenshot displays the controls to activate the desired recipe.

- A)** Push-buttons: used to activate the recipe concerned.  
Red coloured background: function activated.
- B)** Push-button: used to program the name of the recipe.
- C)** Area: displays the preview of the pallet wrapping cycle selected.
- D)** DX push-buttons: used to activate the layer cycle.
- E)** Push-button: used to copy the data of a recipe on another one.
- F)** Push-button: used to display the screen of the successive recipes.
- G)** Push-button: used to display the screen of the previous recipes.



## 6.7. "WRAPPING CYCLE" SCREENSHOT

The screenshot displays the controls to program the wrapping cycle.



- A)** Area: the name and number of the recipe are displayed.

- C)** Push-button: used to select the type of wrapping cycle of the pallet.  
At each activation, the push-button displays the function enabled with the reference icon.



- Icon **(C2)**: used to select the "Double wrapping" cycle.



- Icon **(C3)**: used to select the "Double wrapping cycle with sheet feeder".

- D)** Push-button: used to select the stop mode (automatic or programmed) of the spool carriage during lifting.  
At each activation, the push-button displays the function enabled with the reference icon.



Icon **(D1)**: used to select the automatic stop of the spool carriage (lifting phase) depending on the height of the pallet being wrapped.



Icon **(D2)**.  
 – In the “home” screen it is used to select the stop at the programmed height of the reel carriage (rising phase) based on the height of the carriage.  
 – In the “home layers” screen it is used for programming the height off the ground of the selected layer.

By activating this button (altimeter), another button opens next to the **(E)** button which allows you to set the height of the pallet.

With this function activated, if you wish to delay the wrapping you must set a height that is greater than that of the product to be wrapped.



**(E)** Button: it is used to schedule the delay of the stopping point of the spool carriage while it is rising (only with automatic stop).



**(H)** Button (visible only with “cycle with cutting disabled”): used to enable and disable the programming of the distance from the ground (offset) for wrapping start.  
 - *Blue coloured background.*  
 Function enabled.  
 - *Grey coloured background.*  
 Function disabled.



**(L)** Push-button: used to program the positioning height and the number of reinforcement wrapping. The push-buttons are only visible if the function was enabled through the button **(H)**.



**(N)** Push-button: used to enable and disable the programming of the cycle with the presser (Optional).



**(O)** Push-button: used to enable and disable the programming of the cycle with creasing device (Optional). If the electric creasing device is available, you can set the folding percentage.



**(P)** Push-button: used to access the page of special cycles **(F1, F2,...)**.



**(Q)** Push-button: cutting arm cycle disabled.

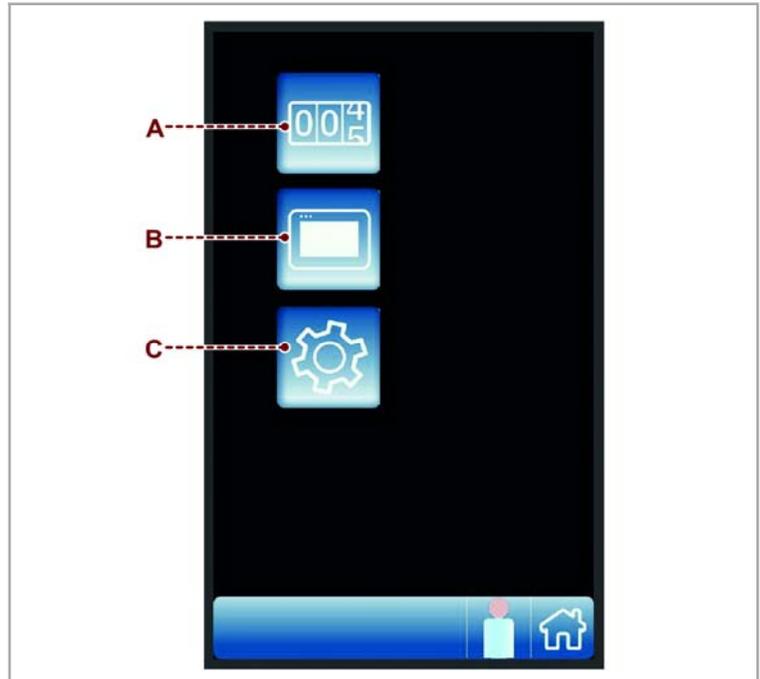


**(R)** Push-button: sealing cycle disabled (Only **CW**).

## 6.8. SCREENSHOT "GENERAL PARAMETERS"

The screenshot is used to program the operating parameters of the machine.

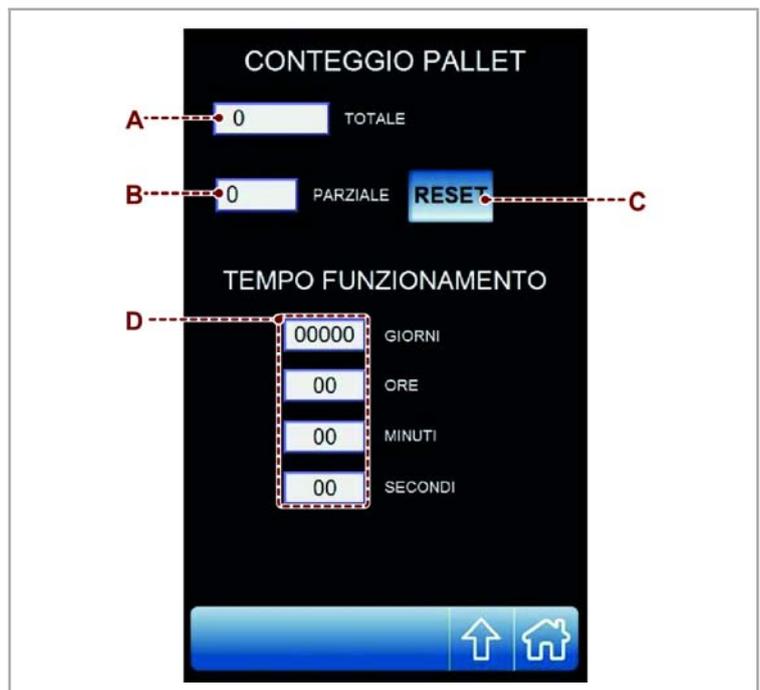
- A) Push-button: used to display the "production counters (pallets)" screenshot.
- B) Button: it is used to display the "H.M.I. settings".
- C) Push-button: used to display the "Service" screenshot.



## 6.9. "PRODUCTION COUNTERS (PALLET)" SCREENSHOT

The screenshot displays the controls to check the quantity of pallets made (partial and total).

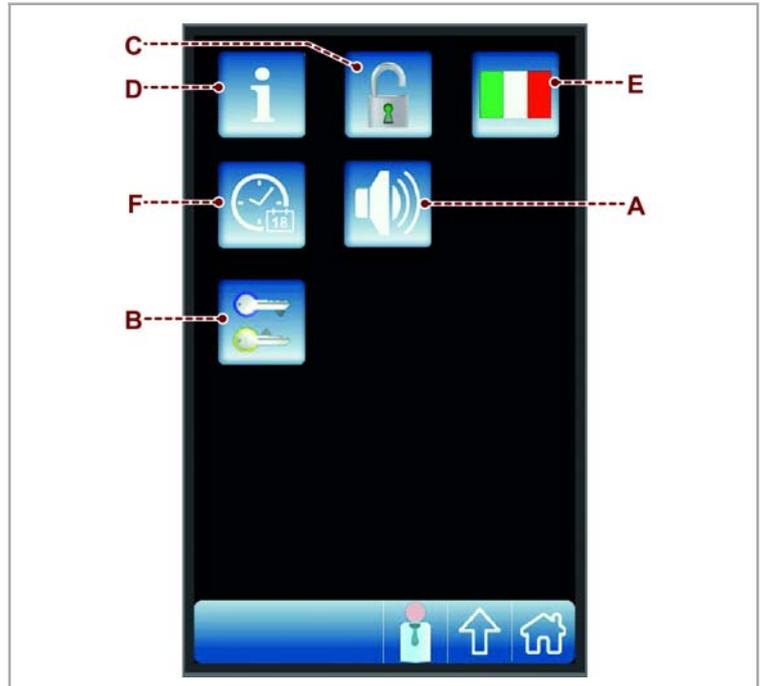
- A) Area: displays the counter (total) of wrapping cycles carried out by the machine.
- B) Area: displays the counter (partial) of wrapping cycles carried out by the machine.
- C) Push-button: used to reset the counter (B).  
The function is active only if the system is accessed as "machine responsible" (see the "password insertion (user login)" screenshot).
- D) Area: displays the time the machine is used in terms of days, hours, minutes and seconds.



## 6.10. "H.M.I. SETTINGS" SCREEN

The screenshot displays the controls to customize the operating mode of the user interface".

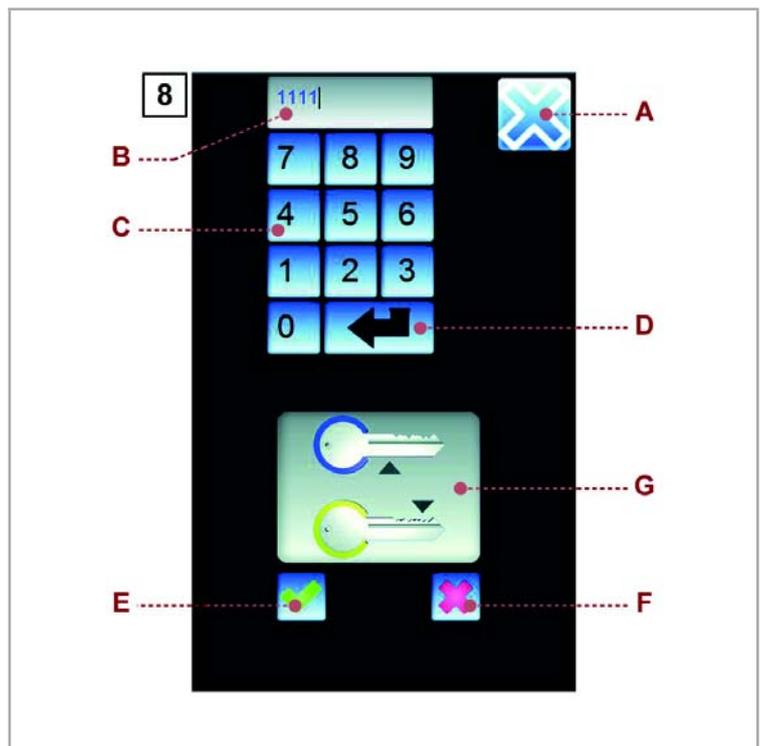
- A) Push-button: used to enable and disable the acoustic signal of the display.
- B) Push-button: used to display the "password modification" screenshot.
- C) Push-button: used to enable and disable the programming of recipes. The function is active only if the system is accessed as "machine responsible" (see the "password insertion (user login) screenshot).
- D) Push-button: used to display the screenshot showing the software version.
- E) Push-button: used to select the language.
- F) Push-button: used to display the screenshot for adjusting the date ad hour.



## 6.11. "PASSWORD MODIFICATION" SCREENSHOT

The screenshot displays the controls to modify the access password to the protected functions.

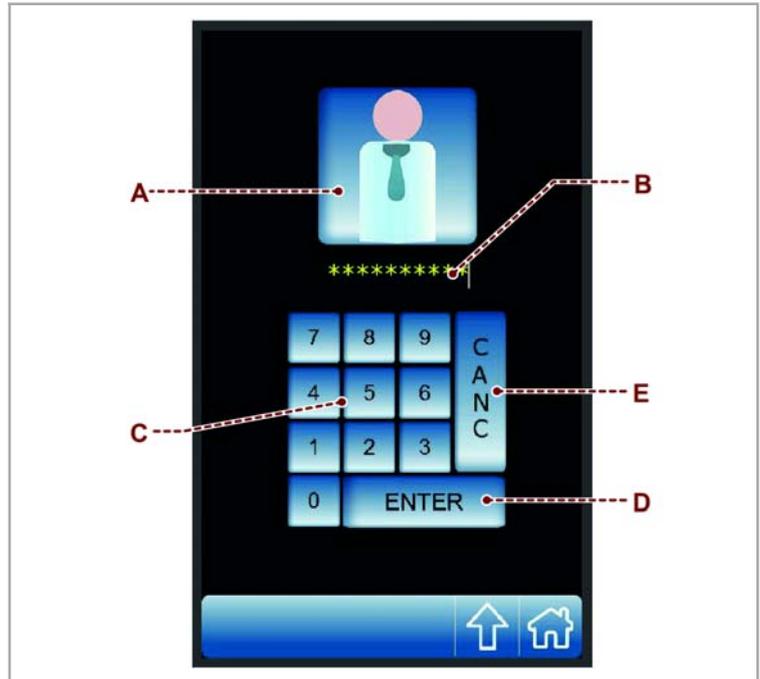
- A) Push-button: used to display the upper level screenshot.
- B) Area: displays the characters entered.
- C) Numeric keypad.
- D) Push-button: used to confirm the characters entered. The activation of the control is signalled by the animation on the icon (G).
- E) Push-button: used to store the password. The control is enabled only if the animation of the icon (G) is active.
- F) Push-button: used to reset the values entered. The activation of the control deactivates the animation of the icon (G).



## 6.12. "PASSWORD INSERTION (USER LOGIN)" SCREENSHOT

The screenshot displays the controls to insert the password (concerning the user selected) with the purpose of accessing the protected functions.

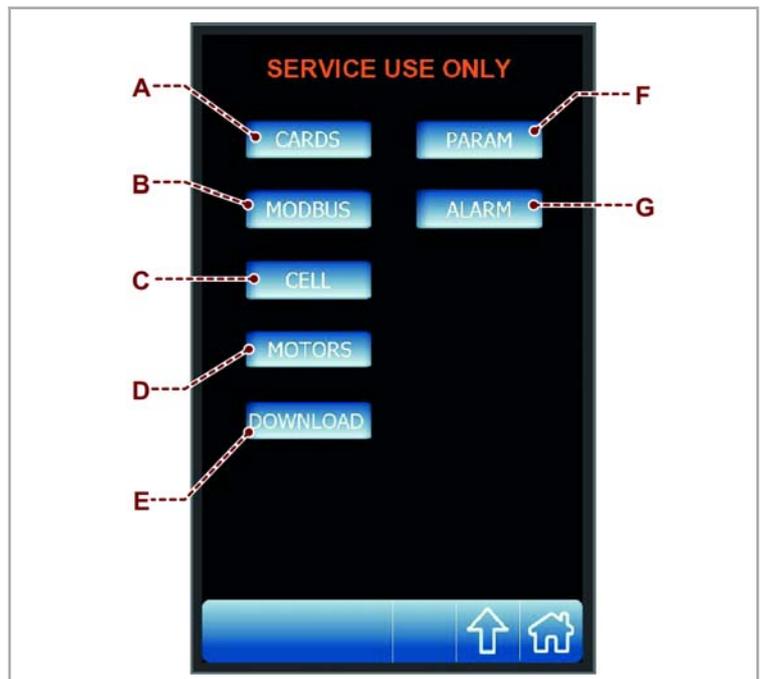
- A)** Push-button: used to select the type of user concerned.  
At each activation, the push-button displays the function enabled with the reference icon.
- Icon **(A1)**: used to select the "machine responsible" user.
  - Icon **(A2)**: used to select the "assistance service" user.
  - Icon **(A3)**: used to select the "software administrator" user.
- B)** Area: displays the characters entered.
- C)** Numeric keypad.
- D)** Push-button: used to confirm the password entered (login).  
To prevent another type of user from accessing the protected functions, at the end of the operations use one of the following procedures to perform the "user logout".
- Touch the icon **(A1)** located on the tool bar.
  - Turn off and turn on the machine again.
- E)** Push-button: used to cancel the wrong characters entered.



## 6.13. "SERVICE" SCREENSHOT

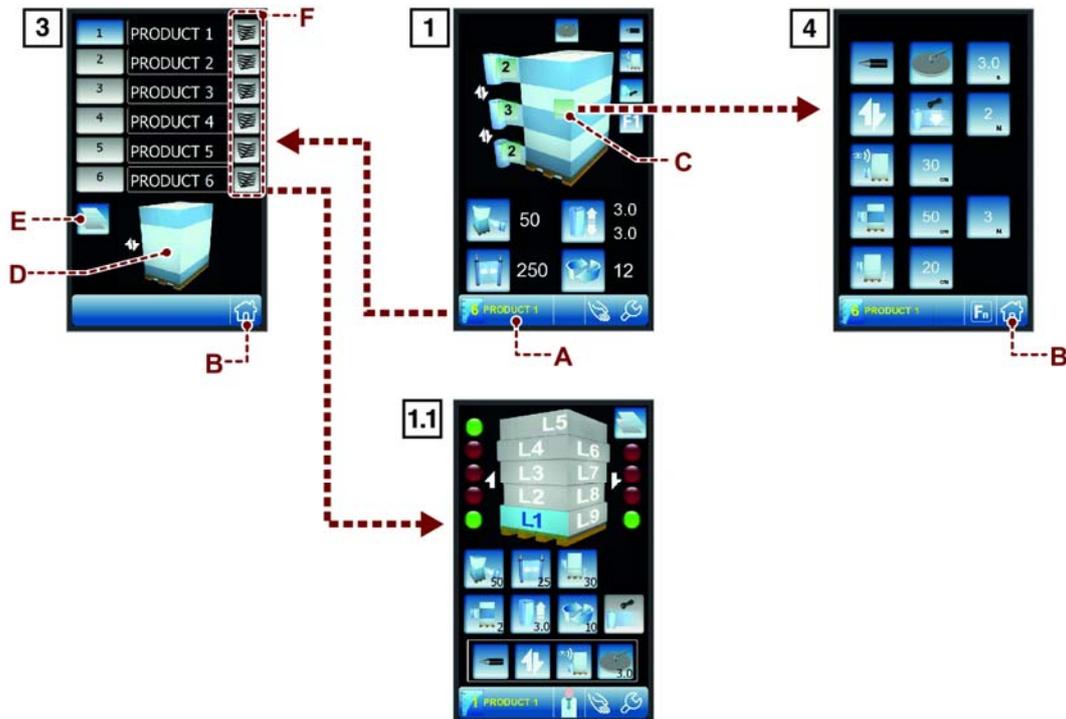
The screenshot is only reserved to the Manufacturer's Support Service to perform the diagnostics and the basic programming.

- A)** Push-button: used to display the state of various components of the electric panel.
- B)** Push-button: used to display the state of **MODBUS**.
- C)** Button: it is used to display the offset of the loading cell.
- D)** Push-button: used to display the state of motors.
- E)** Push-button: used to update the software.
- F)** Push-button: used to display the main machine setup parameters.
- G)** Push-button: used to display the alarms log.



## 6.14. PROGRAMMING A NEW RECIPE

Proceed as indicated.

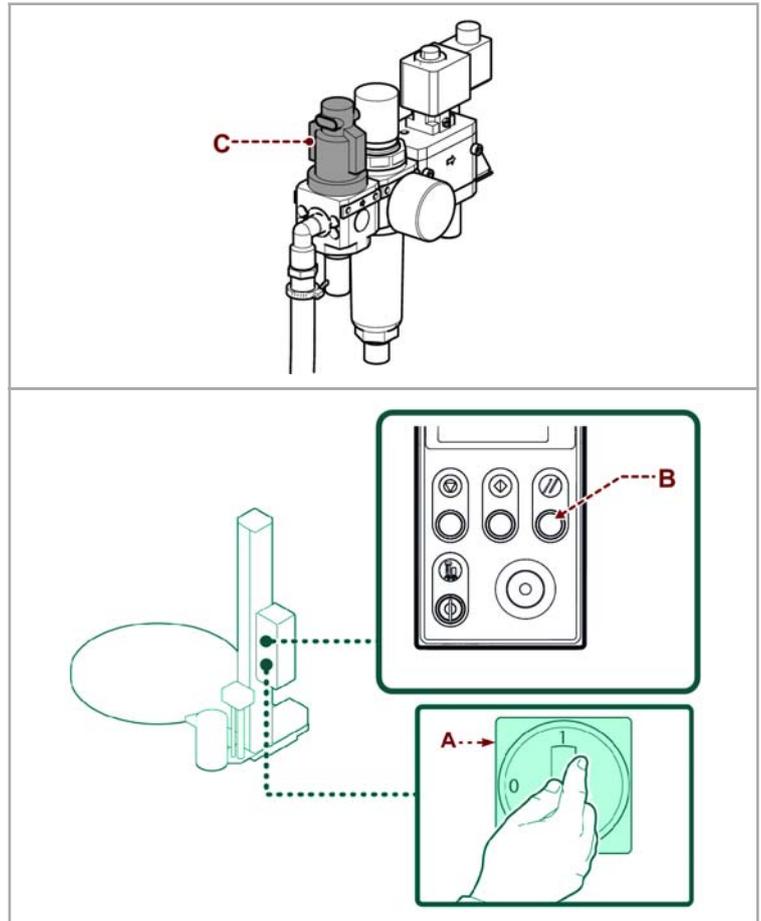


1. Display the "Home" **1** screenshot.
2. Press the button **(A)** to display the "Recipes" screenshot **3**.
3. Press the push-button **(F)**, corresponding to the desired recipe, to access the "Home 1.1" screenshot.
4. If required, press the key **(E)** to copy the data of a recipe on another one.
5. Select the concerned recipe.
6. Program the name of the recipe.
7. Press the button **(B)** to display the "Home" **1** screenshot.
8. Press the push-button **(C)** to display the "wrapping cycle" **4** screenshot.
9. Program the parameters of the recipe.  
The area **(D)** displays the preview of the pallet wrapping cycle.
10. Press the button **(B)** to display the "Home" **1** screenshot.

## 6.15. SWITCHING THE MACHINE ON AND OFF

Proceed as indicated.

1. Open the pneumatic tap **(C)**.
2. Turn main switch **(A)** on **I (ON)** to turn on electric power supply. Display reads **"RES"**.
3. Press the "Reset" button **(B)**; the display will enter stand-by mode.
4. Set the cycle parameters (see "Cycle parameter setting").
5. Perform the cycle start operations (see "Starting and stopping the cycle").
6. Turn the main switch **(A)** to **0 (OFF)** to turn the machine off.



## 6.16. CYCLE PARAMETER SETTING

Proceed as indicated.

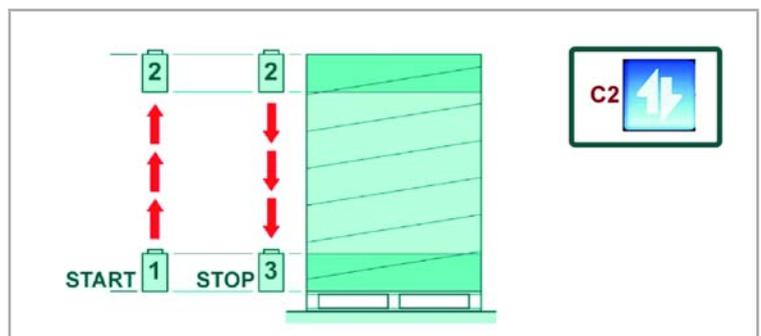
1. Switch the machine on (see "Switching the machine on and off").
  2. Choose the recipe number.
  3. Press the button relative to the parameter to be modified to view the current value.
  4. Press the keys **+ / -**, or scroll the slider, to raise or lower the value, until the desired value is obtained (See "Programming window").
- This new value will be stored in the relative program.

## 6.17. WRAPPING CYCLES DESCRIPTION

### 6.17.1. 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.

- 1 - START**  
**3 - STOP**



### 6.17.1.1. CYCLE WITH CUTTING DISABLED

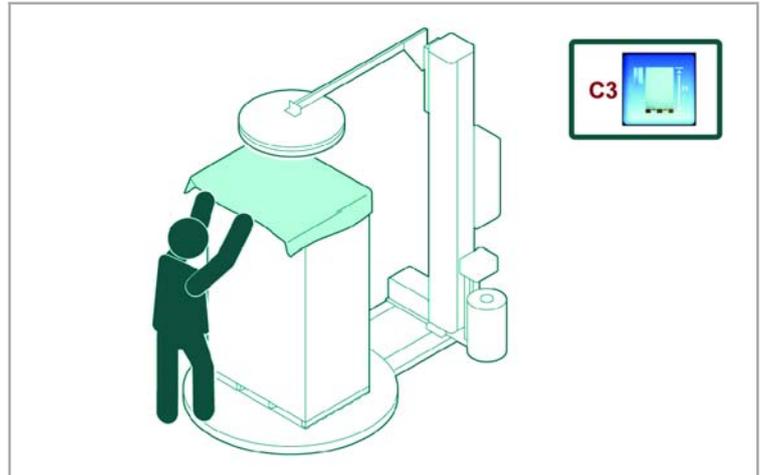
At the end of the wrapping cycle the film is not automatically cut.  
The gripper is not enabled.

### 6.17.1.2. CYCLE WITH SEALING DISABLED (CW VERSION ONLY)

At the end of the wrapping cycle the film is cut but it is not heat-sealed.

### 6.17.2. WRAPPING CYCLE WITH FEEDER

To select this cycle, press button **(C3)**.  
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.



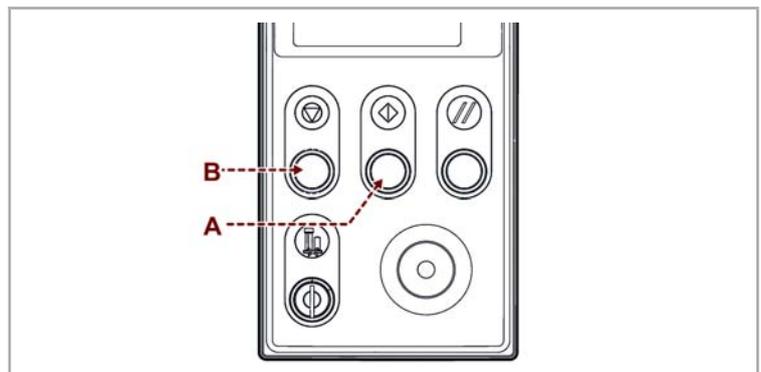
At this point, the operator, after having positioned the covering sheet on the top of the pallet, reactivates the cycle by pressing the "Start" button; the presser descends once more.

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).

### 6.18. STARTING AND STOPPING THE CYCLE

1. Proceed as indicated.
1. Place the load on turntable and set aside the loading device.
2. Fix the film to the limit stop (never to the gripper).
3. Press the "Cycle start" push-button **(A)**. The machine performs a cycle and stops automatically.
4. Proceed to film cutting (if necessary).
5. Remove the load and place another one on the table to start a new cycle.



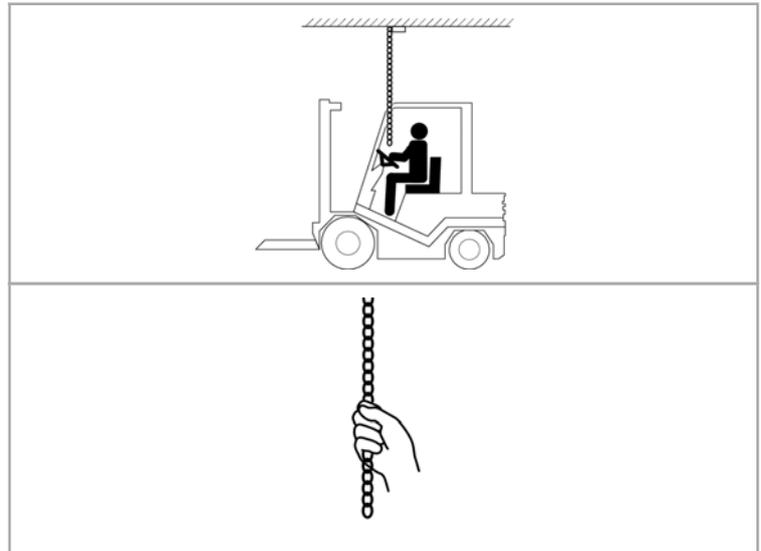
#### Important

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

### 6.18.1. USE OF THE “START” CHAIN (OPTIONAL)

Starts the wrapping cycle by chain command.

1. Pull the chain to start cycle.



## 6.19. TYPES OF STOPPING AND STARTING

During operation there can be voluntary or unforeseen conditions that stop the machine.

These are the possibilities:

- temporary stop (voluntary);
- machine stop due to electrical power cut;
- production end stop;
- Emergency stop.

### 6.19.1. TEMPORARY STOP (VOLUNTARY)

It can occur for a brief work pause, a few minutes.

This operation only requires you to push the “stop cycle” button.



#### **Danger - Warning**

The machine is still running: it is enough to press the “start cycle” button to restart the machine.

### 6.19.2. MACHINE STOP DUE TO ELECTRICAL POWER CUT

In case of voluntary interruption of electric power supply, machine stops immediately.

The electrical engines stop.

When electric power supply returns, the machine does not continue its operating cycle but remains still in the same position.

To restart operation:

1. Press “start cycle”, press the reset button, and manually bring the turntable back into phase.
2. If necessary, remove the product to be wrapped or partially wrapped by the machine.

The machine is ready to start a new operating cycle.

### 6.19.3. PRODUCTION END STOP

This situation verifies when the work shift or machine use is over or when the machine remains inactive or not attended to for a certain lapse of time.

1. Turn the main switch to position **0**.

### 6.19.4. EMERGENCY STOP AND RESTART

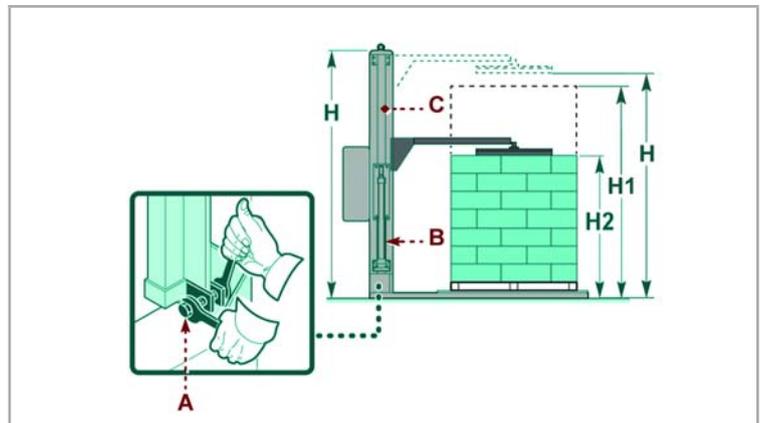
1. Press the machine emergency stop button when there is imminent danger.
2. After normalising operating conditions, turn the emergency button. Press the "Reset" button.

### 6.20. CHANGE THE PRESSER HEIGHT

- The presser assembly can be supplied in the version with pneumatic cylinder (stroke **800**) or mechanical cylinder.
- The illustrations show the machine with the presser assembly in the versions available.
- Refer to the tables to identify the minimum height of the pallet to be wrapped depending on the version of the presser assembly installed on the machine

#### 6.20.1. ROD PNEUMATIC CYLINDER

- 1) Loosen the screw **(A)**.
- 2) Adjust the height of the pneumatic cylinder **(B)** on the guide **(C)** according to the size of the product to be wrapped.
- 3) Tighten the screw **(A)**.



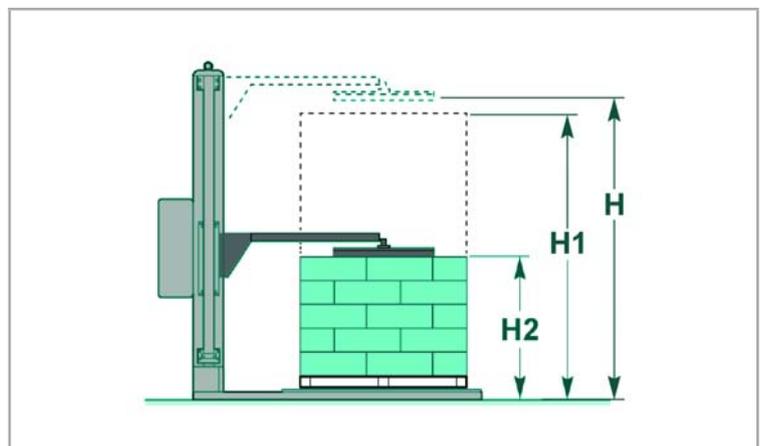
**!** **Important**

The pneumatic pressure stroke is always **800 mm**.

Presser assembly version	Slide guide mast H (mm)	Arm in normal position H1 (mm)	Arm in normal position H2 (mm)
Rod pneumatic cylinder	2350	2200	1400
"	2550	2400	1400
"	2950	2800	1400
"	3250	3100	1400

#### 6.20.2. MECHANICAL PRESSER

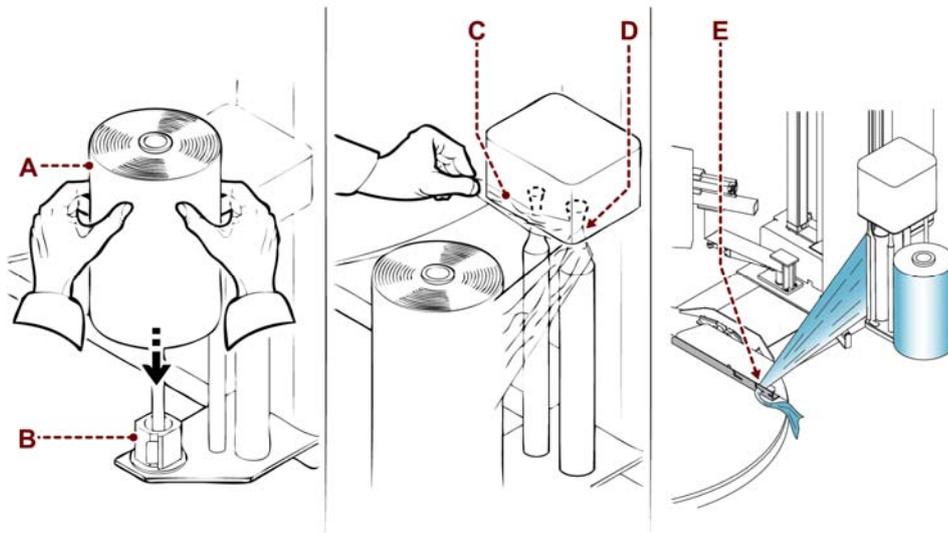
This presser does not need to be adjusted for wrapping heights greater than **750 mm**.



Presser assembly version	Slide guide mast H (mm)	Arm in normal position H1 (mm)	Arm in normal position H2 (mm)
Mechanical presser	2350	2200	750
"	2550	2400	750
"	2950	2800	750
"	3250	3100	750

## 6.21. REEL LOADING

Proceed as indicated:



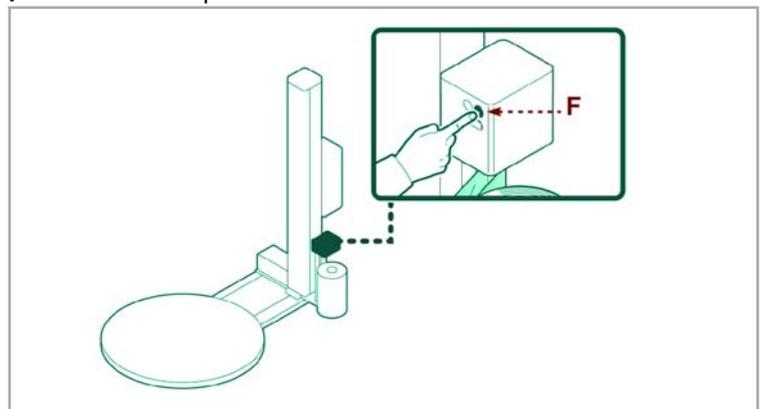
- 1) Insert film reel **(A)** in the proper housing **(B)** on the reel carriage.
- 2) Disentangle the film and insert it in the rollers as shown in the diagram printed on the carriage.



### Important

The dents on the carriage indicate the hot-melt gluing side of the film spool (inner or outer) with a dotted line.

- 3) Collect some film **(C)** until a thin cord is obtained and make it pass in the conical area **(D)** of the rollers.
- 4) Pull the cord outwards.  
The film will automatically drop on the roller and cover it all along its height.
- 5) Fit the end of the film tight in the eyelet **(E)** of the limit stop bracket on the turntable.
- On reel carriages type "PVS", to allow film unwinding, it is necessary to press the roller rotation button **(F)** on the reel carriage.



## 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 dump in the environment materials, pollutant liquids and the residues created during the interventions but dispose them according to the standards in force.



#### Danger - Warning

Before performing any maintenance operation, activate all of the security devices provided and evaluate the necessity to adequately inform personnel operating in the near vicinity.  
In particular, confine the neighbouring areas to impede access to the devices that could, if activated, produce unexpected danger conditions provoking hazards to personal safety and health.



#### Danger - Warning

Maintenance operations must only be performed with the machine disconnected from the electrical and pneumatic power supplies.  
By regularly checking the working of a number of the more important parts of the machine, subsequent problems can be avoided, and the machine can be kept in perfect working order.

### 7.2. ROUTINE MAINTENANCE INTERVALS



#### Important

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

#### Maintenance period table

Frequency	Component	Type of intervention	Procedure	Reference
Every 40 hours or 1000 cycles *	Machine	Cleaning	Clean with a cloth of air jet	-
Every 40 hours or 1000 cycles *	Air filtering unit	Condensate discharge	-	See "Condensate drainage"
Every 40 hours or 1000 cycles *	Air filtering unit	Cleaning the filter	Clean with a blast of air and alcohol	See "cleaning air filter"
Every 200 hours or 5000 cycles *	Rubber coated rollers	Cleaning	Clean with alcohol	-

Every 200 hours or 5000 cycles *	Lifting chains	Greasing	-	See "Lubrication point diagram"
Every 200 hours or 5000 cycles *	Lifting chains	Tensioning check	Regulate	See "Reel carriage lifting chain adjustment"
Every 200 hours or 5000 cycles *	Table rotation chain	Greasing	-	See "Lubrication point diagram"
Every 200 hours or 5000 cycles *	Table rotation chain	Tensioning check	Regulate	See "Table rotation chain adjustment"
Every 200 hours or 5000 cycles *	Reduction gears and gearmotors	Lubricant level check <sup>1</sup>	Top-up with a lubricant of the same kind if necessary	see lubricants table
Every 200 hours or 5000 cycles *	Toothed wheels of the carriage drawing gears	Greasing	-	See "Lubrication point diagram"
Every 2000 hours or 10000 cycles *	Lifting chains	Wear check	-	-
Every 2000 hours or 10000 cycles *	Safety devices	Efficiency control	-	-
Every 2000 hours or 10000 cycles *	Table rotation chain	Wear check	-	-
Every 2000 hours or 10000 cycles *	Cutting thread	Wear check	If necessary, replace the component	Contact the technical assistance service
Every 5000 hours or 50000 cycles *	Revolving table wheels	Change	-	See "Replacing rotating table wheels"
Every 5000 hours or 50000 cycles *	Carriage lifting wheels	Change	-	-
Every 5000 hours or 50000 cycles *	Reduction gears and gearmotors	Replacing the lubricant	Use lubricants with the same characteristics	see lubricants table

#### Non-routine maintenance

Every 5 years or 60000 cycles * (Only for machines version TP or with protection)	"Reset" Switch	Change	Change	-
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<sup>1</sup> The reduction gears and gearmotors may be lubricated with either grease, oil, or for life. Reduction gears and gearmotors that are lubricated for life do not need to be topped up and/or replaced.

\* The cycle-based frequency was defined according to the standard cycle. The cycle considered standard is the following: top film reel **500 mm**, top pallet **1500 mm**, pallet weight equal to **1500 kg**, total wrapping time two revolutions at the top, two revolutions at the peak, rotation speed **12 r.p.m**, trolley up and down speed equal to **4 m/1'**.

**!** **Important**

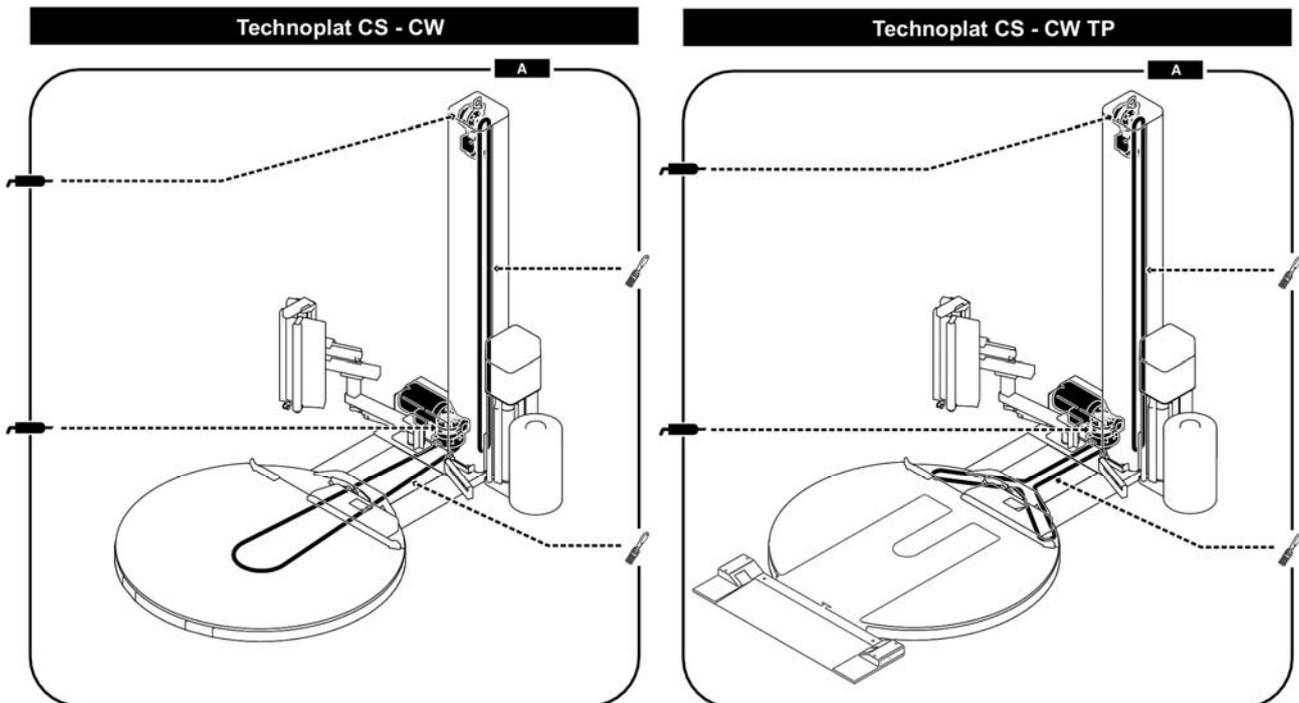
In the event of heavy use increase the inspection frequency by halving the maintenance intervals.

Heavy duty use definition:

- Operating temperature <math>< 10\text{ }^{\circ}\text{C}</math>.
- Number of packing >50 / per day.
- Dusty environment.

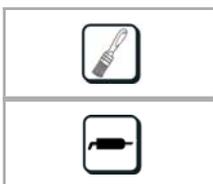
### 7.3. LUBRICATION POINT DIAGRAM

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



*Symbol and Description*

**A** - Every **200** hours or **5000** cycles.



Smear with grease.

Check lubricant level.

Do not top-up and/or replace the lubricant in reduction gears and gearmotors lubricated for life.

**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.

**Use lubricants (oils or grease) recommended by the manufacturer or with similar chemical-physical features.**

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



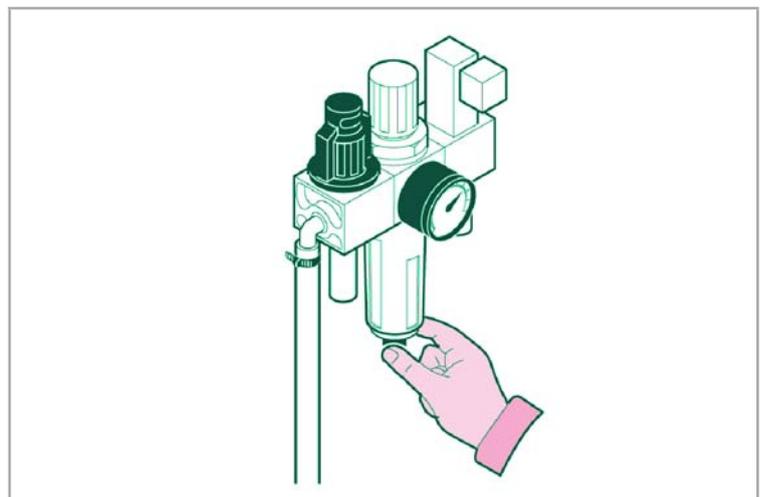
**Important**

Do not mix oils of different makes and specifications.

**7.5. CONDENSATE DISCHARGE**

Proceed as indicated.

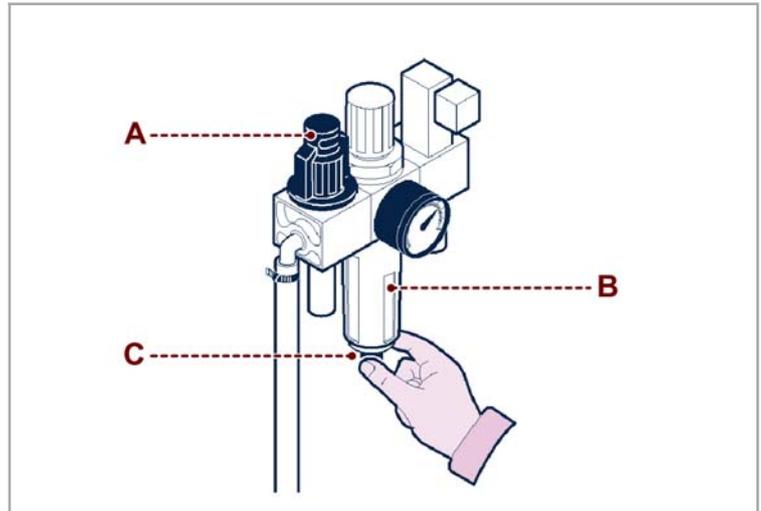
1. Close the tap **(A)** and control the level of condensation in the container **(B)**.
2. Unscrew, if necessary, the valve **(C)** to empty condensation.
3. Push the valve **(C)** up until all condensation is removed.
4. Tighten the valve **(C)**.



## 7.6. CLEANING THE AIR FILTER

Proceed as indicated.

1. Loosen the cup (**B**) with the specific key.
2. Detach the filter and clean with compressed air and wash, if necessary with petrol or trichloroethylene.
3. Reassemble the filter and tighten the container (**B**).



## 7.7. CLEANING MACHINE

General cleaning of the machine is fundamental to guarantee efficiency in the long run.

All the machine must be kept free from dust, dirt and foreign bodies.

The chromed shafts must be cleaned with a cloth and slightly lubricated with a cloth soaked in Vaseline oil.

The parts in plastic material must be cleaned with a slightly damp cloth; do not use alcohol, petrol or solvents.

The control panel is only to be dusted with a dry cloth.

For the cleaning of the parts inside the machine consult our Technical Assistance Service personnel.

## 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.

#### Alarms List

Name	Problem	Cause	Remedy
E01	Emergency alarm mushroom button pressed.	Emergency alarm mushroom button pressed.	Reset the button and press the Reset button.
E02	Carriage emergency.	An obstacle has been detected along the descent path of the reel carriage.	Remove the obstacle and press the "Reset" button.
E30	Fault Inverter overload: 1. Worktable. 2. Cart. 3. Pull. 4. Pre-stretch. 5. Pressure platen.	POWER DRIVER LOW POWER DRIVER HIGH OVER VOLTAGE MAX VOLTAGE UNDER VOLTAGE HW POWER CURRENT OVER HEAT PHASE FAIL CURRENT MAX CURRENT INT MAX PARAMETER WRONG COM.ERROR	Contact the Servicing Dept.
E60	"Film rupture" alarm.	The film has broken or reel is empty.	Insert the film or replace reel.
E61	Table phase 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.	The carriage has stopped.	Remove the obstacle and press the "Reset" button.
E65	Presser blocked alarm.	The presser has stopped.	Remove the obstacle and press the "Reset" button.
E66	Sealer alarm.	Anomaly during current passage through the welder's circuit.	Welder relay may be glued.
E67	Pressure switch alarm.	Insufficient pressure in the pneumatic circuit.	Restore the pressure within the circuit.
E73	Arm position alarm.	The cutting arm is not back.	Reset the correct position.
E83	MODBUS Alarm.	Electronic fault.	Contact the Servicing Dept.

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E84	Setup parameters incorrect alarm.	Data loss from control panel.	Upload the parameters from the USB flash drive supplied or enter them manually.
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## 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** dump 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.



#### Important

Before performing any maintenance operation, activate all of the security devices provided and evaluate the necessity to adequately inform personnel operating in the near vicinity.

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

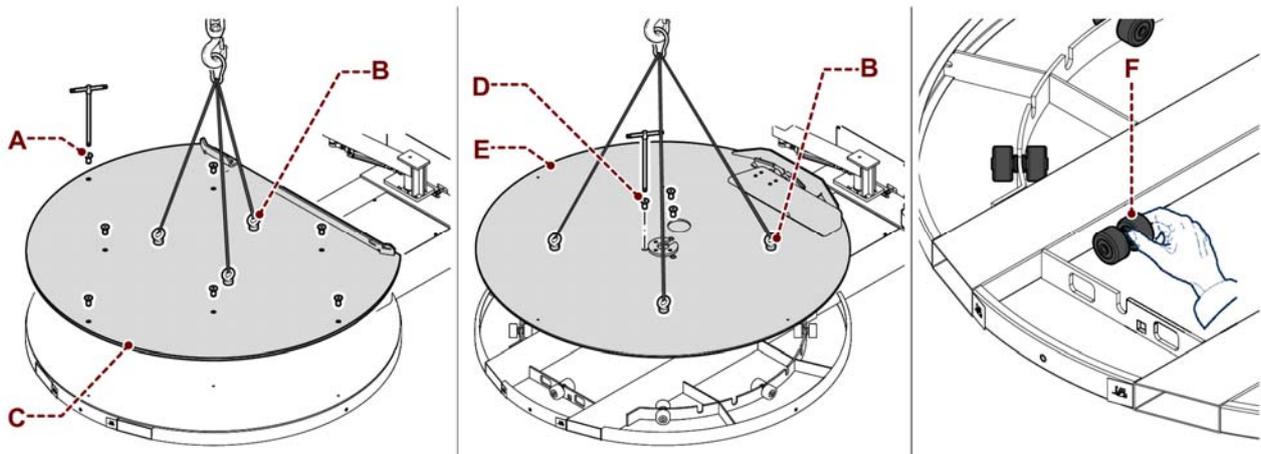
When replacing worn parts, use only original replacement parts.

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

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

### 9.2. REPLACING ROTATING TABLE WHEELS (TECHNOPLAT CS/CW)

Proceed as indicated:

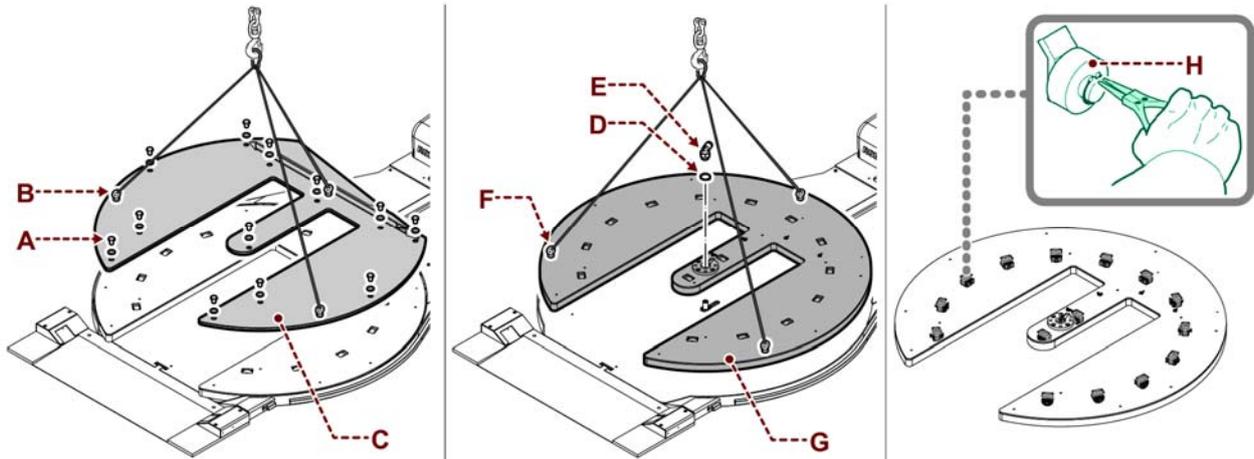


1. Loosen the screws **(A)**.
2. Mount the **(B)** eye-bolts and remove the top plate **(C)**.
3. Loosen the screws **(D)**.
4. Assemble the eyebolts **(B)** on the rotating table **(E)**.

5. Lift the table and place it on the floor.
6. Replace the wheels (**F**).
7. To reassemble, perform the above steps in reverse sequence.

### 9.3. REPLACING ROTATING TABLE WHEELS (TECHNOPLAT CS/CW TP)

Proceed as indicated:

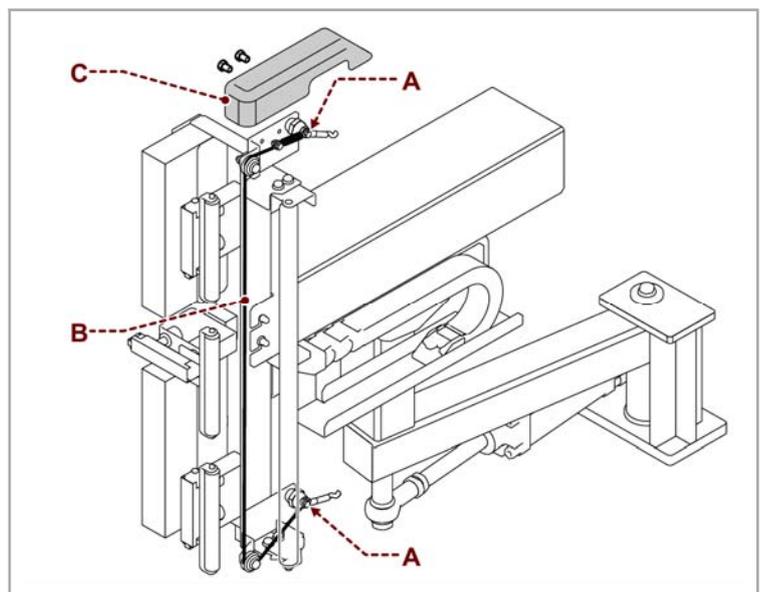


1. Undo screw (**A**).
2. Mount the (**B**) eye-bolts and remove the top plate (**C**).
3. Remove the (**D**) seger.
4. Remove the (**E**) fitting.
5. Assemble the eyebolts (**F**) on the rotating table (**G**).
6. Lift the table and place it on the floor.
7. Replace the wheels (**H**).
8. To reassemble, perform the above steps in reverse sequence.

### 9.4. REPLACEMENT OF THE CUTTING THREAD

Proceed as indicated.

1. Remove cover (**C**).
2. Loosen the fastening screws (**A**).
3. Position the new thread (**B**).
4. Tighten the screws (**A**) when finished.



## 9.5. LIST OF THE RECOMMENDED SPARE PARTS

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

- **14** double wheels for the base.
- **8** Carriage support wheels.
- no. **1** Cutting thread.
- N. **1** pneumatic control valve.
- no. **1** carriage clutch (Only for spool carriages type "**PDS**").
- no. **1** Drive belt (Only for spool carriages type "**PDS**" - "**PVS**").
- No. **2** springs for tensioning the clamp's inner band.

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



### Important

Substitute the parts that are worn with genuine spare parts.

Use the oils and greases specified in the manual.

All these measures may guarantee the expected operating and safety level of the machine.

## 9.6. MACHINE DISPOSAL AND SCRAPING

Proceed as indicated.

### 9.6.1. 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 an 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.

### 9.6.2. 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 an 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:**

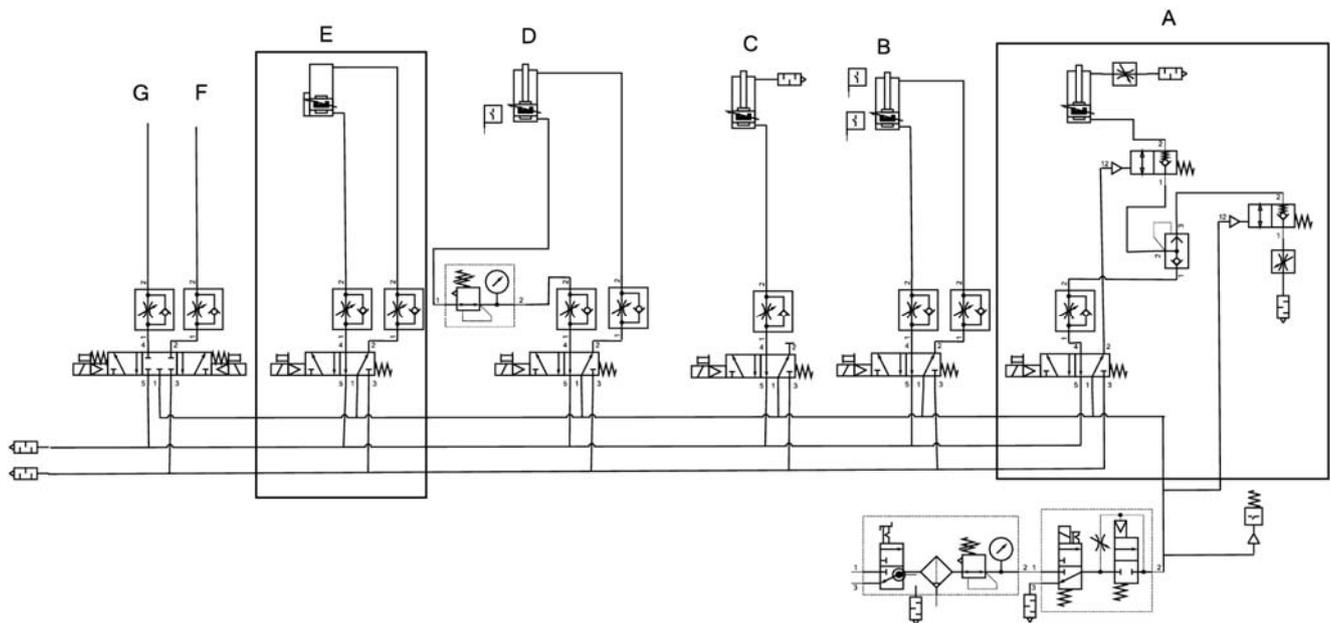
- damage caused by transport.
- damage due to incorrect installation.
- improper use of the machine or negligence.
- tampering or repairs by unauthorised personnel.
- lack of maintenance.
- parts subject to normal wear and tear.

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.

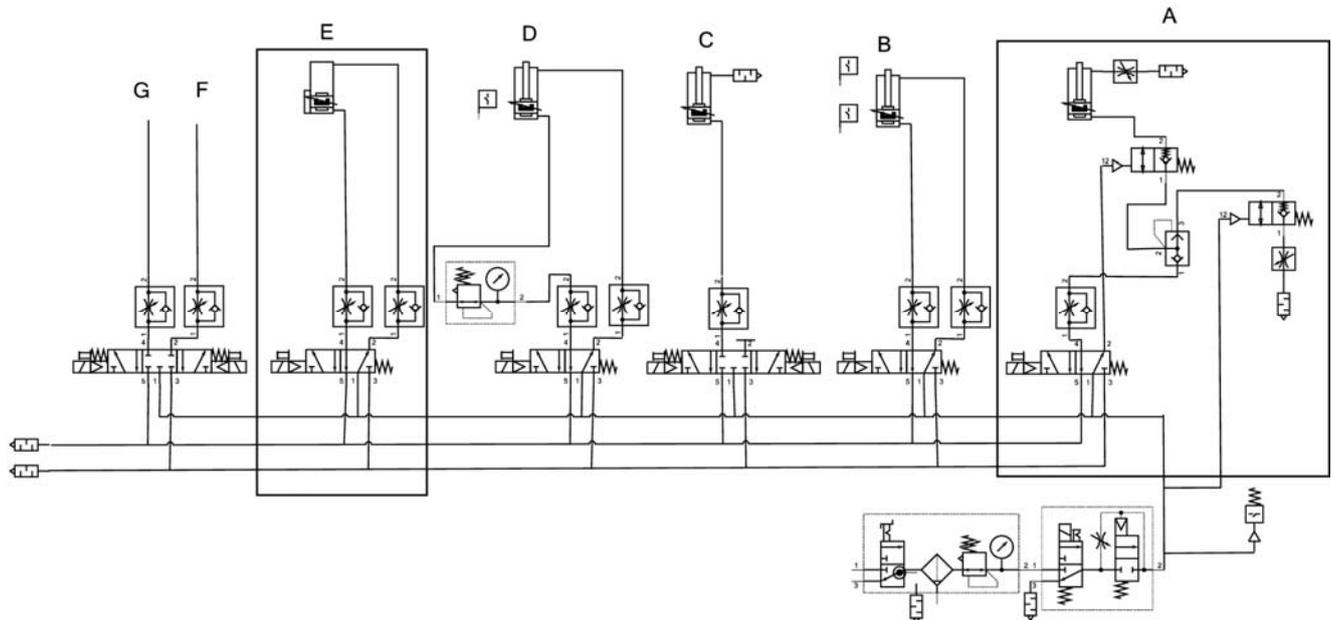
## 10.2. STANDARD PNEUMATIC MACHINE CIRCUIT DIAGRAM



### Key

- A)** Presser cylinder.
- B)** Arm cylinder.
- C)** Clamp cylinder.
- D)** Rubber cylinder.
- E)** Creasing device cylinder.
- F)** Blower on the arm.
- G)** Blower at the base.

### 10.3. PNEUMATIC MACHINE CIRCUIT DIAGRAM WITH PROTECTION (OPTIONAL)



**Key**

- A) Presser cylinder.
- B) Arm cylinder.
- C) Clamp cylinder.
- D) Rubber cylinder.
- E) Creasing device cylinder.
- F) Blower on the arm.
- G) Blower at the base.

# 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 <a href="http://www.aetnagroup.com/">http://www.aetnagroup.com/</a>		
		
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