

PACKAGING TECHNOLOGIES

SPINNY S 140



Semiautomatic wrapping machine with rotating turntable >



INSTRUCTION AND MAINTENANCE MANUAL

DIR. 2006/42/CE







TRANSLATION FROM THE ORIGINAL INSTRUCTIONS

Carefully read instructions before using the machine



02 9452-3566

sales@getpacked.com.au

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Introduction



This manual provides you with all the information necessary for the use and maintenance of your machine. The correct working operation and its working life depend upon your correct maintenance and your attention to its correct and proper use.

It is implied that all the current safety and hygiene regulations are observed in the plants where this machine is installed.

Before leaving the production plant this machine underwent a severe and careful inspection to guarantee the maximum reliability. You must check that during shipment the machine has not undergone any structural damage which could prejudice its correct working operation and your safety.

In order to better comprehend this manual, we specify some of the terms used:

- DANGEROUS ZONE: zone into or near the machine, where the presence of a person can be dangerous for the person itself.

- OPERATOR: person in charge of the operations on the machine.

- QUALIFIED TECHNICIAN: qualified person, specially trained and empowered to work with the machine, or to make works of maintenance or repair, requiring a special knowledge of the machine, its operation, its safety and mode of action.

Operators and technicians must read and comprehend this manual in all its parts.

This manual is to be considered an integral part of the machine and must accompany the machine until its demolition.

In the case that the manual is lost or damaged you must request a substitute copy from EFFE 3 TI srl .

The technical information contained in this manual are property of EFFE 3 TI srl and must be considered reserved in nature.

This manual should be conserved in a secure place, together with all the publications that come with the machine.

Any reproduction, even partial , of the graphic project, the text, and or the illustrations is forbidden by law.

Some particular working parts shown by the present illustrations in the manual could be different from your machine, and some components may have been removed to guarantee the clearness and understanding of the illustrations.

To make it easier to understand, consult, and use this manual, it is divided into sections, each of which is identified by a specific graphic symbol. The subjects treated in this manual are those which are expressly requested by the CEE Machine Directive 2006/42/CE and following modifications, and the technical data given are those provided by the producer at the time of the manual printing.

This manual should be accessible to all personnel designated to use and maintain the machine. Any requests for information must be accompanied by the data given on the machine's Identification plaque.

For any legal controversy the competent authority is the Court of Vercelli (Italy)

EFFE3TI reserves the right to make changes to production and manuals without any obligation to update the previous manual production.



TECHNICAL ASSISTANCE OR MANUAL REQUEST

We are at your complete disposal.

Telephone: (+39) 0163.828911 Fax: (+39) 0163.828990



This manual must accompany the machine in case of re-sale!



Information Section



In case of any doubts whatsoever, do NOT interpret yourself !
Please immediately call for service assistance EFFE 3 TI srl
Tel.: 0039 0163.828.911



1.1 Machine description

The semi-automatic film wrapping machine model "SPINNY" is perfect for packing, using extendable plastic film, for loads on pallets whose dimensions and weight does not exceed those listed in the table under the paragraph "Foreseen uses". The speed of the wrapping turn table can be regulated, plus gradual starting of the rotation, and the stop in the table position at the end of the wrapping cycle. You can also regulate the number of wraps on the top and bottom part of the pallet being wrapped, plus the choice of different wrapping programs.

The machine has fixed guards to protect the transmission parts. Some moving parts that are part of the working machinery (mechanisms) cannot be protected by cover guards because of their form/structure.

Safety (Safe use) is in any case guaranteed by the characteristics of the machine and by the operator pressing the emergency button.

1.2 Manufacturer's data

EFFE 3 TI srl
C.so Garibaldi, 298
13045 - GATTINARA (VC) - ITALY
Telephone: 0039 0163.828911
Fax: 0039 0163.828990
E-mail: info@effe3ti.com

1.3 Identification plaque

For any communication with the manufacturer you must always cite the registration data given on the Identification plaque on the machine.



The identification plaque is a rectangular metal plate with the following details:

- Logo:** EFFE 3 TI with a star above the 'I'.
- CE Mark:** Large 'CE' symbol.
- Manufacturer Info:** GATTINARA - VERCELLI - ITALY
Tel +39 0163 828911 Fax +39 0163 828990
- MODEL:** _____
- SUPPLY:** _____ V _____ A _____ Hz
- SERIAL NUMBER:** _____
- MANUFACTURE DATE:** _____



Attention!

It is severely forbidden to remove or damage the identification plaque. If accidental damage is done, please contact EFFE3TI srl directly.



1.4 Foreseen uses

This specific model of stretch wrapping machine was designed, built and fitted with protective devices to wrap, using stretchable plastic film, palliated loads having variable dimensions depending on the size of the rotating table (from 800x1200 mm to 1200x1200 mm).
The load capacity of the machine can vary from 1200 to 3000 kg depending on the specifications requested by the customer.
The maximum height of the loaded package is 2100 mm for all standard models, upgradeable to 2600 mm for special versions.
Use other than that specified by the manufacturer's technical specification is considered IMPROPER.
The machine is, however, designed for industrial professional use only.

1.5 Consenting environmental conditions

To guarantee the correct working operation, the machine must be placed in a protected environment away from any atmospheric agents (rain, hail, snow, fog, suspended dust in air etc.) with an environmental working temperature ranging between 5°C and 40°C with a humidity factor between 30 and 80%. The work environment must be clean, sufficiently lit, and in absence of explosive environments and away from high local heat sources.

1.6 Noise level

The measurements of the noise level were carried out in accordance with the processes established by the Norms UNI 7712.
The phonometric trials carried out on this specific model show that the acoustic pressure level is:

$L_{pa} < 70 \text{ dB}$



Attention!

According to the articles of the DL 81/08, 09/04/2008 all workers exposed to sound levels superior to 80 dBA must be protected with the specific personal safety equipment.

Thus, it is necessary, if the work conditions foresee the use of such levels of noise, that the workers must be provided with duly tested individual acoustic protective devices, and that they be informed of the risks deriving from the exposure to certain noise levels.

1.7 Technical data

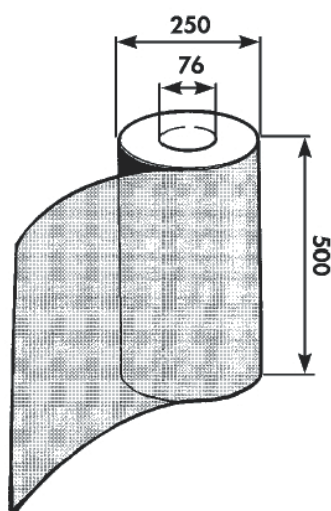
Platform motor	0,37 Kw
Prestretch motor	0,18 Kw
Production	20 ÷ 30 pallets/hour
Table rotation speed by inverter	5 to 10 RPM

Electrical supply

Tension	230 V single phase
Frequency	50 Hz
Installed power	0,7 Kw
Auxiliary energy supply	24 V ac

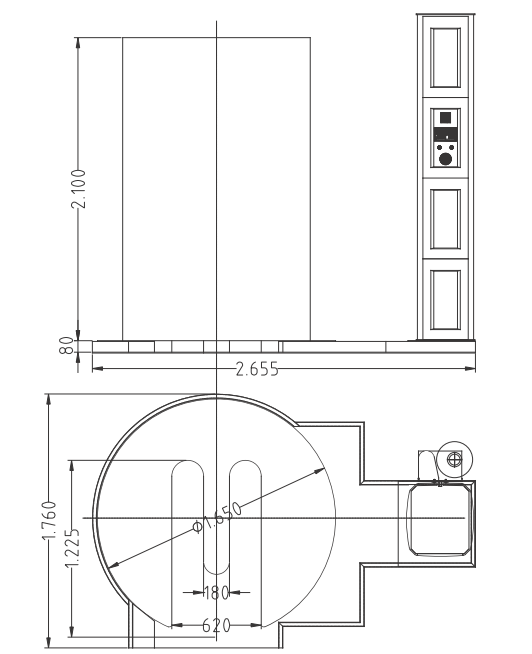
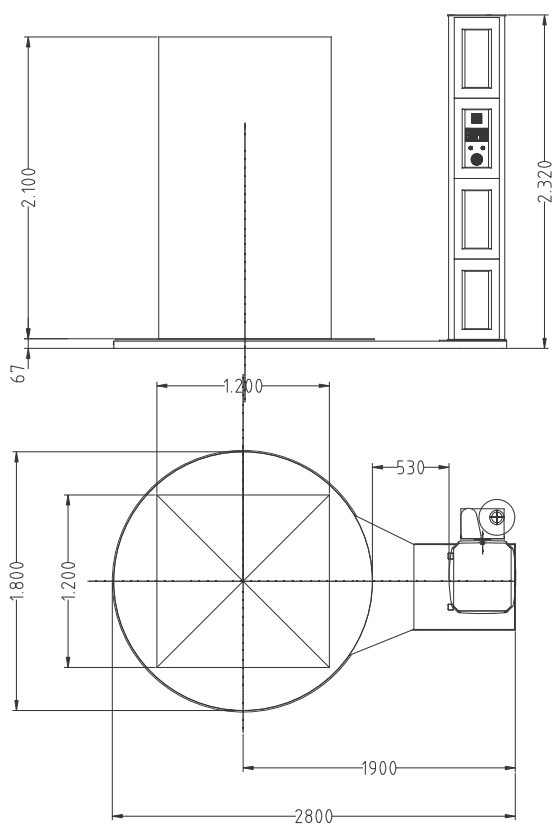
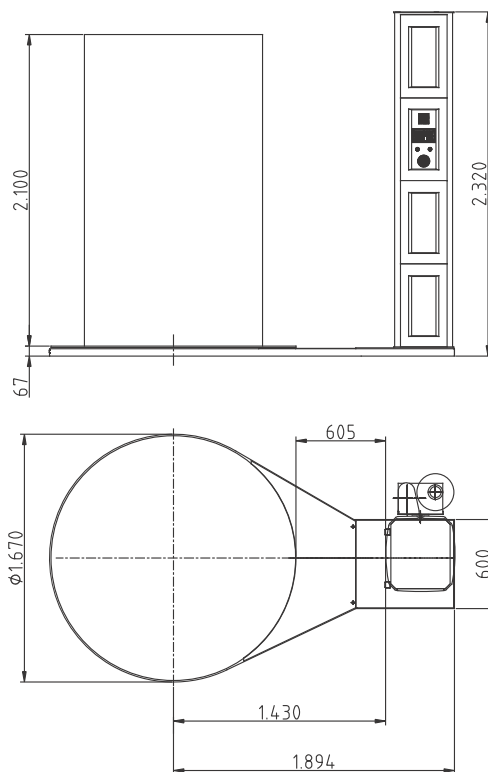
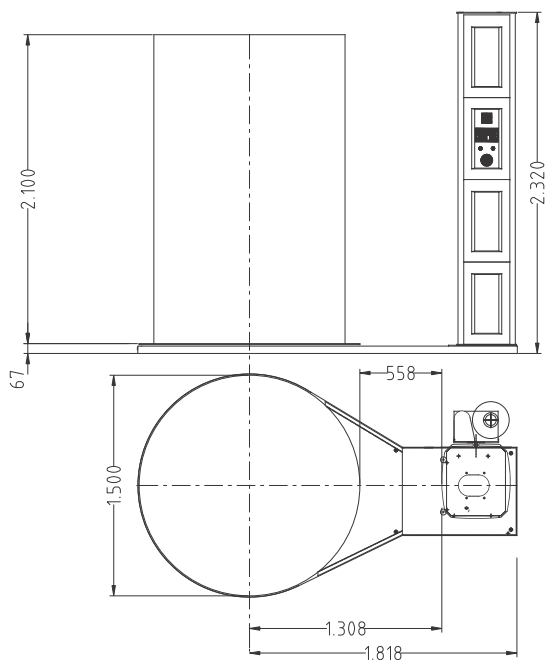
Characteristics of the wrapping film

Self-adhesive wrapping film in polyethylene (LLDPE)	
Film thicknesses	0,015 ÷ 0,040 mm
Advised film thickness	0,023 mm
Internal coil diameter	76 mm
Height	500 mm
Maximum film roll weight	max 16 Kg
External coil diameter	max 250 mm



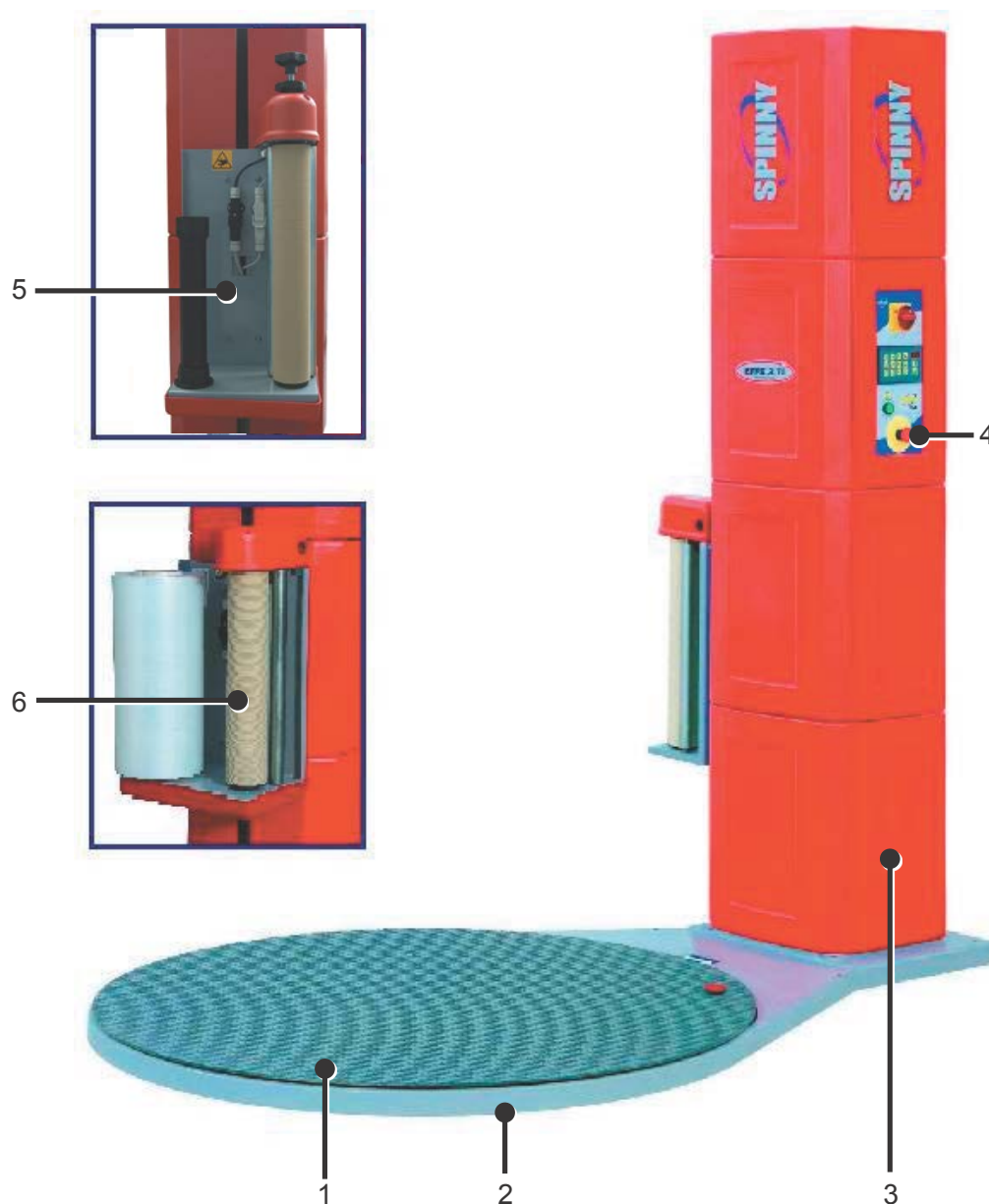


1.8 Overall dimensions



Semi-automatic wrapping machine with turntable mod. "Spinnny" * S 140 Plus S 140 Advanced

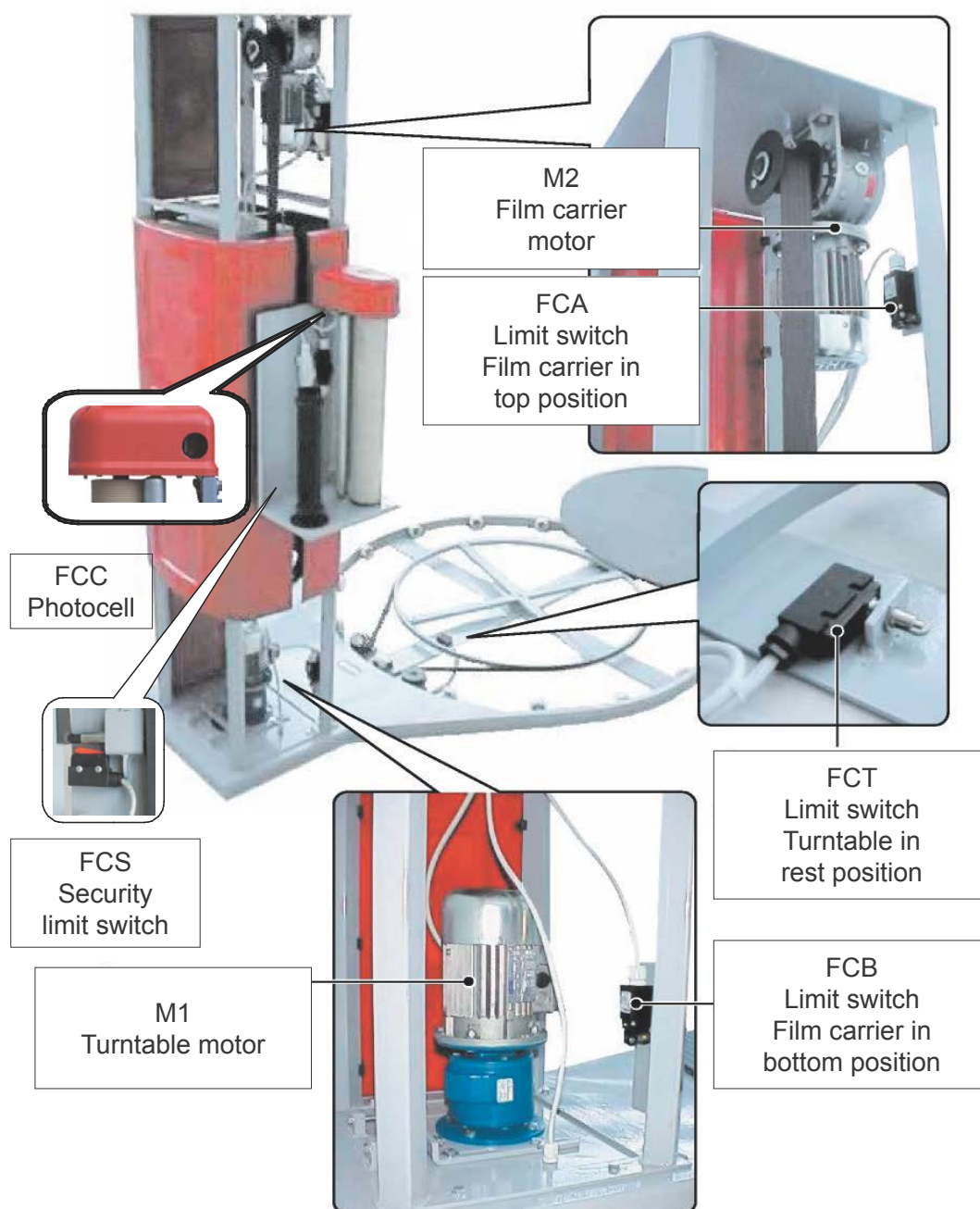
1.9 Identification of the machine's main groups



1	Rotating turntable
2	Base
3	Column
4	Operating panel
5	Film holder coil S 140 Plus
6	Film holder coil S 140 Advanced



1.9.1 Electric motors and limit switches



Attention!

The components indicated are particularly important for safety reasons. In case they become worn or broken their substitution must be made with spare parts furnished or authorized by the Factory.



1.10 Warehousing

Remove all the pieces which are not part of the machine then clean all surfaces. Using a paintbrush cover all the moving parts. Group the parts together and place them in pre-designated pallet with clear references to the packing list of the shipment, respecting the instructions regarding the moving of the machine. Place bags of hygroscopic salt with silica gel on the pallet Warehouse everything in a protected place away from weather elements and with an environment temperature of between 5°C and 40°C. Protect the parts so as to avoid the accumulation of dust.

1.11 Demolition

In normal conditions of use and maintenance this machine has a working life of more than ten years. At the end of the machine's working life when it has to be demolished this should be done in accordance with prevailing legislation, and all parts must be disposed of in the proper and adequate refuse centres. Gather all used oil and dispose it in the proper oil-recycling site. Before demolishing the machine the different kinds of parts must be separated plastic, rubber, electrical and electronic material should be organized into specific groups of materials. The parts that are made completely up of one type of material, for example plastics, aluminium, and steel can be recycled if gathered by, or taken to, the specific recycling centres.



Attention!

The used oil must be taken to the Consortium for Oil Recycling by the authorized agency. The owner must request a license from the proper authorities and must keep the consignment slip in their records.



Attention!

***Please note that some parts of large dimension can be moved only by using special lifting equipment.
(FOR THE WEIGHT OF THE SINGLE GROUPS SEE THE INSTALLATION SECTION)***



Please pay the maximum attention during the demolition process as falling parts or machine components may constitute a danger to operators.



In case of demolition of the machine, you must destroy all identification plate and all attached documents.



1.12 Warranty

In the limitations hereunder-expressed EFFE3TI SRL will repair any eventual construction defects that may manifest themselves during the 24 (twenty-four) months of warranty from the time the machine is put in use, but in any case NOT more than 26 (twenty-six) months from the shipment date. This warranty explicitly EXCLUDES parts that undergo normal wear and tear during the work operation (such as belts, rubber rollers, washers, gaskets, brushes etc., and also EXCLUDES electrical parts.

In order to have these conditions of warranty the customer must notify EFFE3TI of any defects that may occur, including in the notification the Identification data of their particular machine. With the repair and/or substitution of the defective part or parts, EFFE3TI completely fulfils its warranty obligations to the customer.

If the machine must be repaired in the factory where it is installed all labor, travel, food and housing costs for the technicians and monitors are entirely the responsibility of the customer.

EFFE3TI is not responsible for damage and/or defects caused by the following:

- improper use of the machine
- Lack of maintenance
- Repairs, tampering, modifications, or any changes to the machine carried out by personnel not authorized by EFFE3TI.

EFFE3TI is in no way responsible, moreover, for any eventual damage to persons or things beyond the machine, which is object of this warranty, neither is it responsible for losses due to lost production.

Regarding materials not directly produced by the EFFE3TI, the customer receives the same warranty given by the suppliers of the aforementioned materials.

The warranty is null and void if the machine is repaired or modified by unauthorized personnel, or when equipment, fittings, or accessories which do not come from EFFE3TI are used, or if the equipment, fittings, or accessories were not recommended or approved by the same EFFE3TI or if the removal or alteration of the registration numbers and/or Identification plaque are detected during the warranty period.

The warranty does not contemplate the eventual cleaning of mechanical parts. Defects which are not clearly attributed to the materials and/or construction of the machine will be examined exclusively in our Main Office or in the Technical assistance centre indicated by EFFE3TI. If the claim should result unjustified, all the repair costs and/or substitution of the parts will be debited to the customer.

The invoice must be shown to the technical personnel who carries out the repair work, or must accompany the machine shipped for the repair work.



1.13 Authorized qualified operating personnel

The machine must be run only by authorized and qualified personnel who are trained in its correct use. The same precautions are valid for the personnel responsible for its maintenance. Do not allow extraneous personnel near the machine during use or maintenance. After having received the necessary proper training and instruction, only the following personnel are authorized exclusively to work on or with the machine:

- MACHINE OPERATOR

Operator trained and qualified for the operation of the machine (operations including, loading and unloading pallets, work cycles, substitution of film rolls).

The operator can perform only the operations specifically reserved for him as specified in the present manual. Thus the use of the machine by un-trained or unauthorized personnel must be avoided at all times.

- MAINTENANCE TECHNICIAN

Qualified technician able to operate the machine like the operator and moreover able to run the machine with protective devices and guards disabled, also able to operate on the mechanical parts and their settings in order to regulate, maintain, and repair them. This person is NOT authorized to work on the electrical system with power on. The maintenance mechanic must have a general experience of mechanics and specific experience with this model of machine.

- ELECTRICAL TECHNICIAN

Qualified technician, able to run the machine as an operator, and moreover able to run the machine with protective devices and guards disabled in order to operate on the settings and on the electrical systems in order to repair and maintain them. This technician operates with the electricity on the inside of the electrical panels, the control panels, etc.

The electrical maintenance person must have a general experience with electrical circuits and a specific experience with the circuits and electrical components of this machine.

- MANUFACTURER

For any other operation not expressly foreseen in this manual or assigned to a specific professional figure different than those here above mentioned, you must contact EFFE3TI.





Security Section



*In case of any doubts whatsoever, do NOT interpret yourself !
Please immediately call for service assistance EFFE 3 TI srl
Tel.: 0039 0163.828.911*



2.1 Information about safety

In accordance with Law D.L. 81/08, the Safety Supervisor is obliged to inform workers regarding the risks concerning the use of this machine.

Moreover the employer is obliged by law to provide the information, the training and the instruction of the operating personnel following alarms and actions prescribed by existing laws.

The non-observance or disregard for the safety norms and precautions could cause accidents during the running, maintenance, and the repair of the machine. Accidents can often be avoided by recognizing potential dangerous situations before they occur. The operator must be aware of the potential dangers and risks, and must have the training, the competence, and the knowledge necessary to carry out these operations correctly.

EFFE3TI cannot be in any way retained responsible for accidents or damage caused by the use of the machine by untrained or unauthorized personnel, nor can it be held responsible in case of the improper use of the machine, or in case of the non-observance, even partial, of the safety norms and procedures contained in this manual.

The warnings and safety precautions are indicated in this manual and on the same product.

If the operator ignores danger warnings and messages, the operator risks accidents with possibly grave and extreme consequences both for himself and for others.

The safety messages use the following symbols:



Attention!

If these warnings are not observed it could result in harm or damage to the operator.

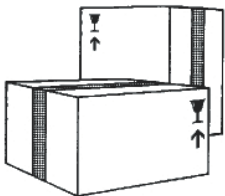


Warning!

If these messages are not observed they could result in damage to the machine.

EFFE3TI cannot possibly foresee all possible circumstances which could be the cause of potential danger. Thus the present warnings and danger messages in this manual and on the machine cannot be completely thorough.

In case that procedures, tools, parts, work methods, or work techniques which are not explicitly advised and authorized by EFFE3TI are used you must check that there is no danger possible to oneself or to others.



Use original EFFE3TI spare parts exclusively

EFFE3TI declines any and all responsibility connected with the use of non-original spare parts.



2.2 Safety precaution



Attention!

The following indications cannot completely protect the operator from all the possible dangers during the operation of this machine. The common sense and experience of the person operating the machine are the best and indispensable measures for the prevention of job related accidents. In each section moreover there is a list of specific safety precautions to be taken for each different operation.



- During particular operations a helping technician could be necessary. This is consented only if the operator and the helper collaborate and remain in sight of each other. The responsible operator must, in any case, verify that the helping technician operates in safe conditions.
- If any unforeseen work cycle or maintenance operation which follow different procedures than indicated in the manual is done, before continuing consult with EFFE3TI.
- During the operation of the machine, other people or animals must not be in the operating area of the machine.
- In case the client installs parts not provided by EFFE3TI it must be verified that the safety conditions required by the Machine Directive 2006/42/CE are maintained, and in any case, EFFE3TI assumes no responsibility for any resulting problems deriving from the use of such parts.
- The machine must not operate in a corrosive or explosive environment.
- Keep the machine clean of extraneous materials such as fine grit, dust, oil, wipers, tools, waste products or other objects that could damage the working of the machine or cause damage to other people.
- A wet, oily or dirty floor can cause accidents. Floors in the working area must always be clean and dry, remove any spillage immediately.



- Avoid using inflammable or toxic solvents such as petrol (gasoline), diesel fuel, benzene, ether, or alcohol in cleaning the machine.
- Avoid prolonged contact with solvents or their vapours. Do not use them near open flames or heat sources, also insure that there is adequate ventilation.



- Prolonged overloading or breakdowns could cause overheating of the electrical motors and the electrical components and result in toxic fumes. Immediately unplug the machine and stand clear of the machine until all such toxic fumes are dispersed by proper ventilation.
- In case of fire NEVER use water on the machine, but only CO 2 extinguishers.



- Operator, helping technician, and maintenance technician must wear proper work attire including protective helmets, safety glasses, and masks to protect against possible shards if compressed air is used during the cleaning process.

If needed safety gloves, and safety-shoes should be worn, and safety earplugs or anti-noise headphones should be worn when the noise level exceeds 80 decibels (A). Wear proper work attire.

In the case of long hair, wear safety nets to avoid hair being wound up in the working mechanism of the machine.

- Authorization for each specific activity during the operation of the machine must be clearly established as indicated in the chapter “Authorized and qualified operating personnel”.

- The manual must always be available so it can be consulted about the correct working procedures whenever necessary or whenever there are doubts about procedures. If this manual is lost or destroyed you must request a substitute copy from EFFE3TI



- Structural damage, improper modifications, alterations and repair can modify the safety devices of the machine, and annuls this certification.

Exclusively EFFE3TI technicians must carry out all modifications of this machine.

- The cleaning operations and maintenance must be carried out only after having disconnected the power supply.

During such work you must place a warning sign



“MACHINE IN MAINTENANCE. DO NOT RUN”,

if possible on the control panel console.

- If you allow a particular specialized technician to carry out maintenance, inspection, or repair operations the authorized personnel must deactivate (partially or totally) some safety devices, open and or remove some protective devices or guards. It will be his specific duty at the end of such process to replace and put in working order the safety components and the parts repaired.

- It is strictly forbidden to get on the machine.

- Do not touch electrical wires, switches, buttons etc. with wet hands.

- A red emergency button is situated on the command panel. It allows for stopping the machine in class 0 as foreseen by the EN 60204-1:1997 norm.





- The manufacturer designed and produce this machine for a reasonable working life in consideration of normal conditions of use.
All parts normally suffering wear and tear during operation must be checked and substituted the moment they show relevant signs of wear.
- In case of manufacturing defects or permanent or cyclical structural deformations occur, immediately consult EFFE3TI or expert technicians who can take the proper steps.
- Do not ever try to manually stop the rotation of the pallet.
Stop the pallet only by pressing the emergency button.



2.3 Safety measures which are under the responsibility of the client

The following are the safety measures which the client must perform.

- Provide an adequate building to install the machine
 - Adequate floors
 - Normal and emergency lighting
 - Adequate ventilation
 - Emergency escape routes
 - Connections for electricity and pneumatic power
 - adequate means for the collection and disposal of refuse, residues, including toxic or special wastes (lubricants, broken and/or waste materials of all kinds etc.)
- Forbid the entry of unauthorized persons
- Fire prevention safety systems, both fixed and portable (sprinklers, showers and /or fire extinguishers)
- Instruction and training of workers and maintenance staff, correct basic training relative to the specific job responsibilities.
- Education and training of operator and maintenance personnel the reading and comprehension of the instruction manual, diagrams, warning signs, reproduction of parts of the instruction manual to provide on-site pages for particular situations (es. emergency stopping, restarting, behaviour in case of the signalling of the safety warning lights etc.).
- Maintaining a current updated maintenance and repair intervention book.



2.4 Plaques and safety symbols

The following safety warning signs with their relative symbols must be attached on the machine.



Attention!

Make sure that all safety warning message signs are legible!

Clean them with a cloth, using soap and water. Do not use solvents, diesel fuel, or petrol (gasoline). Substitute immediately any damaged signs requesting copies from EFFE3TI. If a sign is attached to a part that is replaced, make sure that a new sign is attached to the new part.



**Attention!
Danger of
crushing.
Do Not place
hands between
column and
carriage**





2.5 Safety mechanisms and protective devices



*The following components are especially important to safety.
In case of breakdown or wear they must be replaced using only original
Spare parts supplied by manufacturer or by an authorized supplier.*



Attention!
*Do not modify in any way the limit switches.
During use the protective guards must be correctly mounted.*



- Self locking emergency button with mechanical unlock.
Positioned on the operating panel.
The emergency button stops all mechanical moving parts of the machine but does not turn off the electricity to the electrical panel circuits.
- General lockable switch.
Positioned on operating panel
- Thermal relays
Positioned on the inside of the electrical panel. These devices stop the motor from overheating.

When one of these protective devices goes off you must unblock the relay as follows:

- Position general switch to “0”.
- Remove the protection cover from electrical panel.
- Open the electrical panel; each relay has a button that pops in position 0 if the protective relay switches. To unblock the relay you should press the button in position 1. If it does not remain in position, you must wait few minutes in order to let the protective relay cool down.

Thermal relays



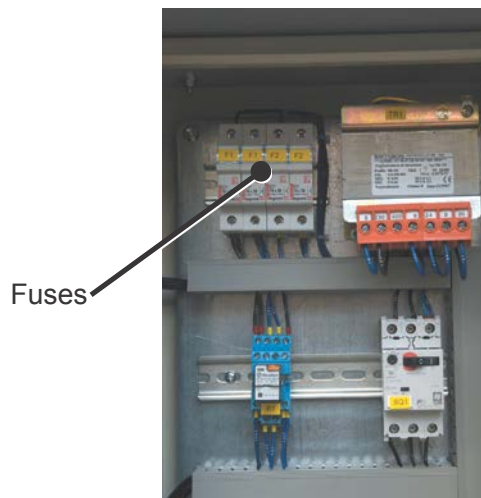


- Fuses

Positioned on the inside of the electrical panel as a protective device for the auxiliary circuits of the machine; high or low peaks of electrical tension can burn these fuses. In this case the white indicator light (Lo) on the panel turns off.

When a fuse fails proceed as follows:

- Position the general switch to “0”
- Remove the protection cover from the electrical panel.
- Open the electrical panel; using a tester find the burnt fuse, and then replace it with one of the same amperes.



Attention!

Repeated fuse burnouts may indicate problems with the electrical system. If this occurs please contact EFFE 3 TI for technical assistance.



2.6 Residual risks

An accurate risk analysis conducted by the manufacturer (available in the technical brochure), has allowed us to eliminate the vast majority of risks connected to the operation of this machine. The manufacturer requests you follow scrupulously the instructions, procedures, and advice given in this manual, as well as to the prevailing safety regulations and norms, including the use of the foreseen protection devices, both on the machine as well as individual safety protection devices.



Attention!

As a precautionary safety measure it is necessary to periodically check the correct working condition of the safety devices. It is severely prohibited to modify in any way, mechanical, electrical, pneumatically or otherwise, so as to not create more unforeseen dangers and risks during operation.

The residual risks of the machine are:

Lack of own lighting system

Provide portable lights if the machine is in a dark place (only for maintenance operations)

Electrical maintenance risks due to the necessity of operating with electricity on

In accordance with the DL 81/08 an operator is allowed to work with the electricity on only for qualified electrical personnel, respecting the conditions of double isolation to ground.



Warning!

***Before connecting the equipment to the power supply, check to ensure that the power supply is correct for the machine.
If it is not suitable, the cost of installing the correct power is at the customers own expense.***

Risks of improper use in the presence of inflammable or explosive substances

Please note that the machine is not intended for use in the presence of explosive substances or inflammable substances. It should therefore not be used in environment containing substances in the form of liquids that can vaporize at room temperature, and combustible dust and gas.

Operating hazards in humid environments

Respect the limits given in this present manual under point 1.5 Consenting environmental conditions



Risks during operation



Attention!

The exposure of personnel to moving parts during operation can cause situations of extreme danger to health. It is strictly prohibited to start the machine until the fixed guards have all been correctly and completely installed. It is also strictly prohibited to modify, by-pass, or eliminate partially or totally the safety systems that are part of the machine. Lock and isolate all energy supplies before accessing the machine. Follow all maintenance procedures described in this manual.



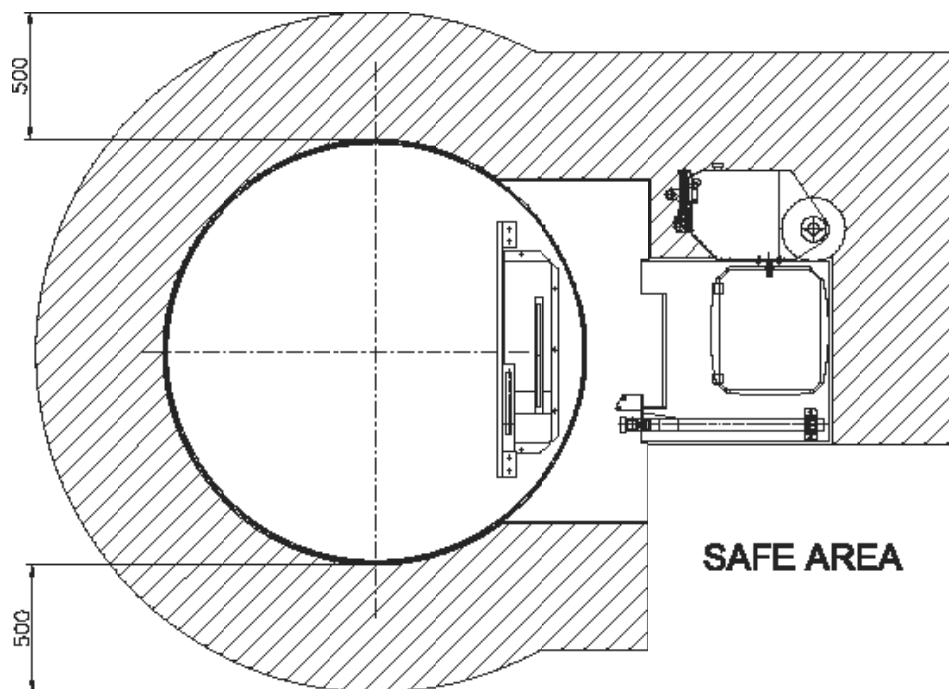
Attention!

It is strictly forbidden to stand on the turntable while it is rotating. While the machine is in operation it is strictly forbidden to move between the vertical column and the rotating pallet.



Attention!

Do not touch the pallet while it is rotating. Do not try to place fingers between the turntable and the outer basement protection plate.



**FOR SAFETY REASONS
THE OPERATOR OR ANY OTHER PERSONS MUST NOT STAY INTO THE ALL
AROUND 500mm AREA OF THE MACHINE WHEN IT IS WORKING.**



Attention!

Do not stand near the film carriage while the machine is in operation. Estimated weight of complete film roll carriage 55Kg.

Do not insert hands (place) between the carriage and the column. Risk of crushing.

Risks during the moving of the machine

We recommend that you secure all moving parts at the spots indicated in the manual, lift the machine with the appropriate lifting equipment to the minimum recommended height. Proceed at low speed, making sure that all helping personnel are at a safety distance from the objects in motion. Before starting check that material or other, and that unblock the passageway area all unattached parts or other mobile objects have been removed. It is most important that while transferring the machine, all lifting and movements of the machine are carried out by qualified personnel to eliminate the risk of accident or injury.

Prohibition signs on the machine

Following any risk situations or their occurrence the manufacturing company has installed a series of warning signs and danger symbols on the machine based on current norms and regulations relative to the graphic symbols that must be used on this machine.

The customer must immediately substitute any plaques or warning signs and/or danger symbols if they become illegible or damaged by use.



Attention!

In the base version with Open Table for pallet entry, you can generate residual risk for the arts. A photocell immediately stops the rotation in the case its radius is interrupted by a foot, in any case, it is prohibited to approach the machine in operation. Observe the signs affixed to the machine and keep the safety distances given on page. 23. The operator must stay in front of the control panel near the emergency button.



Attention!

It is strictly forbidden by the manufacturer and safety regulations to remove or deface any warning and safety signs fixed to the machine or any electrical cabinets. If any of the warning signs are removed or defaced the manufacturer declines any and all responsibility for any accidents, safety risks, or otherwise, resulting from ignoring this ban.



Electrostatic charge

The rubbing of the stretch film against the operator can produce an electrostatic charge.

Remember that it is forbidden to stand near the machine during the wrapping cycle, touch the film while being held by the coil and which is mandatory to follow the safety distances given in this chapter p. 23.

It is advisable to check the grounding and to use appropriate clothing and footwear.

2.7 Applied Directives

The following governmental directives apply to this machine:

- **2006/42/CE** Machine Directive (and following modifications)
- **2014/30/UE** Electromagnetic Compatibility Directive
- **2014/35/UE** RoHS Directive

2.7.1 Reference Norms

- **UNI EN ISO 13850:2015**
Emergency Stop
Functional aspects: design principles.
- **EN 60204-1:1997**
Machinery Safety.
Electrical equipment of machines.
General rules.
- **UNI EN ISO 13857:2008**
Safety distances in the prevention of exposure to of dangerous parts of the machine by the limbs.
- **UNI EN ISO 12100:2010**
Basic concepts of machine safety and general principles of design.
- **UNI EN 415-6**
Norm for pallet wrapping machines.
- **UNI EN ISO 14121:2007**
Safety standard for packaging machines





**Shipment
Transport &
Moving Section**



*In case of any doubts whatsoever, do NOT interpret yourself !
Please immediately call for service assistance EFFE 3 TI srl
Tel.: 0039 0163.828.911*



3.1 General norms

It is the customers responsibility to ensure that the floor has adequate load capacity to support the weight. If the load resistance of the floor is inadequate or if the ground surface is not level, a specific foundation in concrete must be made. This will prevent the distortion of the machine frame and reduce vibration.



Attention!

When the machine is lifted higher than 50mm all personnel must rigorously maintain a minimum safety distance of 4 metres from the machine. A breakdown of the lifting equipment or an unforeseen movement may constitute a serious danger to personal safety.



During the movement or repositioning of the machine it is advisable to always have two personnel present to ensure that a clear view of the area is maintained. Before moving the machine, check that the lifting equipment and all accessories (ropes chains, belts, hooks etc,) are strong enough for the load.



Check that the load is balanced before moving.

The ropes should be long enough to allow the lifting of the machine without putting pressure or weight on the guards as this could bend machine's mainframe.

Bending or other damage could compromise the precision of the machine.

Unauthorized personnel should not loiter in the area where the moving is taking place.

Before moving the machine always check the weight and general indications shown on the package. When the moving is done with a forklift, lift the load 200 mm (20 cm = 8 inches) from the ground and traverse backwards.

Go backwards down ramps or floors with descending planes.

Driving downwards with the load in front diminishes the stability of the lift. Before starting check that the passageway is clear and wide enough to allow the machine to pass.

Ropes and chains must be protected from cutting edges using angles, bumpers or other protection (rags or pieces of wood).

Before proceeding to move the machine several preliminary preparation operations must be carried out:

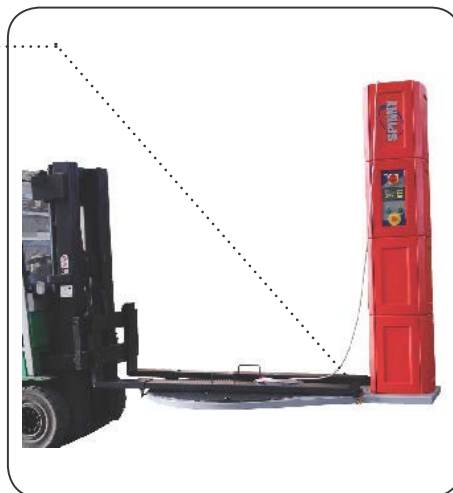
- check that the pavement does not block the machine.
- remove all detachable parts
- secure all moving parts to avoid damage during transport
- always use lifting equipment adequate to the declared weight

3.2 Shipment

Based on the customer's needs, the distance of shipment, and the means of transport, the machine can be transported in one of the following ways:



- a) Completely mounted
ATTENTION! For safety reasons do not lift the machine more than 200mm.



- b) Supported by the appropriate wood pallet, with the column un mounted, opportunely packaged and placed on the base of the machine.



- c) Inserted in a wood case, with the column mounted. This type of packaging is well adapted to all kinds of transport by land, air, and sea.

Dimensions of wooden box:
Length: 2400 mm
Width: 1600 mm
Height: 700 mm



Slide the forklift forks under one of the two sides indicated in the picture.
For transport the forklift forks must be superior to half of the boxes dimensions (> 1200 mm for the length of the box or > 800 mm for the width of the box).



Attention!

The machine weighs 500 Kg The transport and unloading must be made using the maximum caution in order to avoid causing injury to personnel or damaging the machine.

Only qualified personnel, using the correct machinery and accessories in order to move the machine in complete safety, must carry out the transport and unloading. Check beforehand that the space (also vertical height space) in the unloading area is large enough to guarantee the safe movement of the machine. Do not allow unauthorized personnel or strangers to loiter or transit (cross) the unloading area.



Installation Section



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4.1 Positioning



Warning!

Before starting to position the machine make a visual check to see if any damage took place during shipment.

If one or more of the components of the machine are damaged it is indispensable that you do not proceed with the installation and that you immediately notify the manufacturer of the fault and discuss with the same regarding what measures should be taken.

The machine will function according to the foreseen technical parameters if it is correctly positioned level and stable on to the floor of the work area during operation.

It is the client's responsibility to check that the floor weight resistance is adequate for the weight of the machine.



Attention!

Position the machine in a space large enough to be able to carry out maintenance and control checks.

If the machine is placed near a wall or any other object, leave at least 80cm back it to consent the maintenance at the electric panel, positioned into the column.



Warning!

Placing the machine on irregular surfaces will cause undue wear to the wheels that hold up the rotating table, and make it necessary to replace them earlier than normal.



Note!

That in certain circumstance it might be necessary to bolt the machine base to the floor.

4.2 Mounting



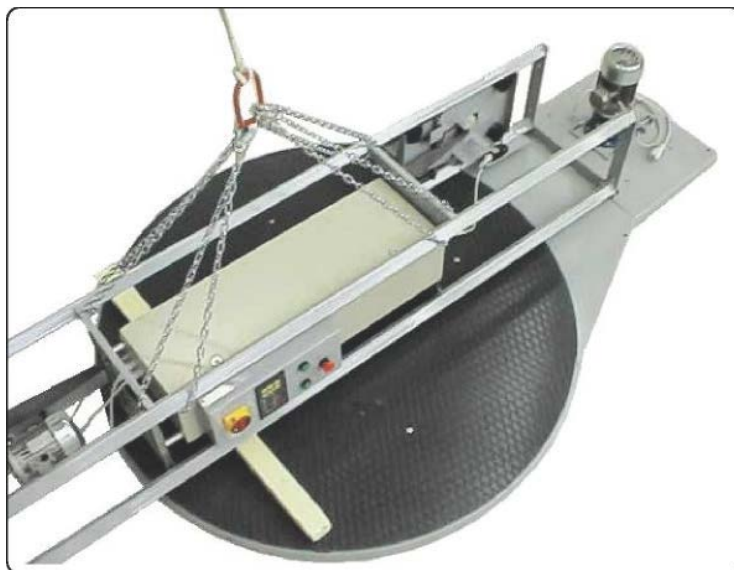
Attention!
Before mounting make sure to wear individual safety protection devices (shoes, gloves, glasses etc.).



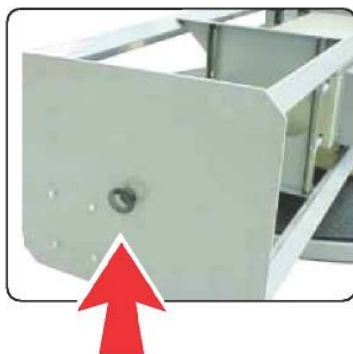
Insert the 4 Eyebolts (M10 thread) in the present thread holes indicated in the figure.
Rope or tie up the base in order to lift it and position it where you want to install the machine.



Attention!
Screw the eyebolts completely!



Maximum weight
approx. 85 kg



Tie up the column as indicated in the figure, lift it and position it above the base
Using one of the eyebolts inserted in the top of the column as indicated in the figure,
lift the column up



Attention!

When positioning the column above the base make sure you insert the hooks on the column into the inside of the holes on the base.



Secure the column to the base using the screws included (M8 x 20).



Position the anti-fall tube at the center of the trailer.



Connect the electrical supply between the base and the column. The black connector must be attached to the black inlet, the white connector to the white inlet.



Warning !
Inverting the plugs, the electric components will be damaged



**Maximum weight film distributor
approx. 15 kg**

To mount the film holder coil unscrew the 4 nuts on the carriage indicated in the figure and position the film holder coil matching up the 4 bolts of the carriage with the holes on the film holder coil. Rethread the 4 nuts and tighten. Connect the electrical supply as indicated in the figure; black connector to black plug, and white connector to white plug

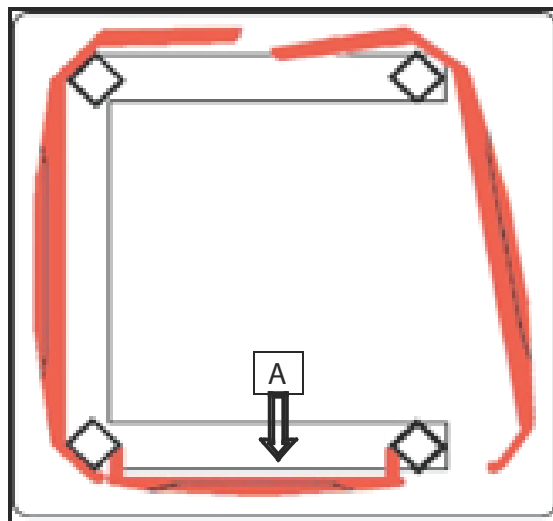


Warning !
Inverting the plugs, the electric components will be damaged



Version S140 Advanced with Electromagnetic Brake

Before starting the machine, remove the wrapper that blocks the electromagnetic brake



Mounts the cover guards on the structure of the machine hooking the springs on first on one side and then on the other side, press lightly on the cover guards to lock in place. The cover guards A (smallest) must be mounted last.



Attention!

Before start working with the machine, make sure that all the cover guards are correctly installed.



4.3 Electric connection



Attention!

The connection to the local power supply must be carried out by qualified specialized personnel who must observe all laws and regulations regarding safety and workplace accident prevention. During the hook up use all necessary personal safety protections.

- Note that the cable that provides power to the machine must be at least 4 mm² in section.

NOTE: The section indicated is valid for up to 20 metres maximum. If the cable is longer a larger wire diameter must be used to take into account the drop in tension.

- Before turning the power on, verify that the power supply value is the same as the one indicated on the identification plaque.

EFFE 3 TI 

GATTINARA - VERCELLI - ITALY
Tel +39 0163 828911 Fax +39 0163 828990

CE

MODEL: _____

SUPPLY: _____ V _____ A _____ Hz

SERIAL NUMBER: _____

MANUFACTURE DATE: _____



Warning!

The outlet for the electrical supply cable was put on the top of the column by design. This gives an aerial electrical supply. This insures the maximum safety and increases ease of movement around the machine's working area, since there is no cable, sheath, or electrical channel on the ground to pay attention to.



4.4 Starting up

Model S 140 Plus

Model S 140 Advanced

After having connected the machine to the electricity:

- a) Turn general switch clockwise (1) in position “I”.
- b) Unblock the emergency STOP button (3) on the command panel by turning it clockwise and pulling outwards.
- c) Press the key 2 to supply power to the electronic switchboard.

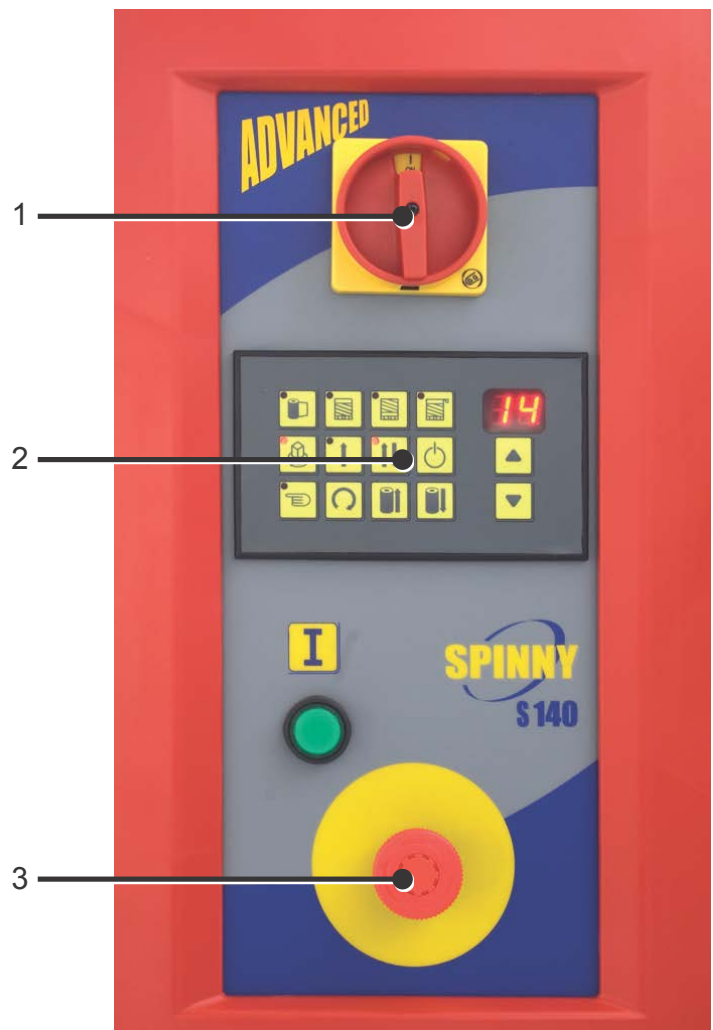
the machine is turned on and ready to operate.
See also the paragraph 5.1.1

If, when pressing the key 2, the relay K1 will not remain in operating position, please verify:

1. if the machine is equipped with feet-security, that the sensor between the red flap and the film carrier is free.
2. if the machine is a TP type (transpallet), that the security photocell is free, that the white plug is connected and the presence of signal on the clamps 200 – 2003

Attention!

This operation is potentially dangerous and must be carried out by authorized personnel only.





Attention!

The mounting and regulating of the mechanisms must take place while the machine is switched off, with the power supply disconnected (deactivated).

- Check that the electrical motors are not overheating.
- Check that all hook ups (electrical and pneumatic) are properly connected.
- Check that there are no particular mechanical faults, or any extraneous objects in the machines working range.
- Check that the limit switches and the guards are correctly positioned.
- Check all safety systems.
- Check that there are no objects in the work area (pipes, tubes, wires, cables etc.) that could be an obstacle or a danger to working personnel.
- Check that the principal panel commands and their signal lights are working properly.
- Check that there is a correct correspondence between the command buttons and the machine's actions.



5

Operating Section



*In case of any doubts whatsoever, do NOT interpret yourself !
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Attention !

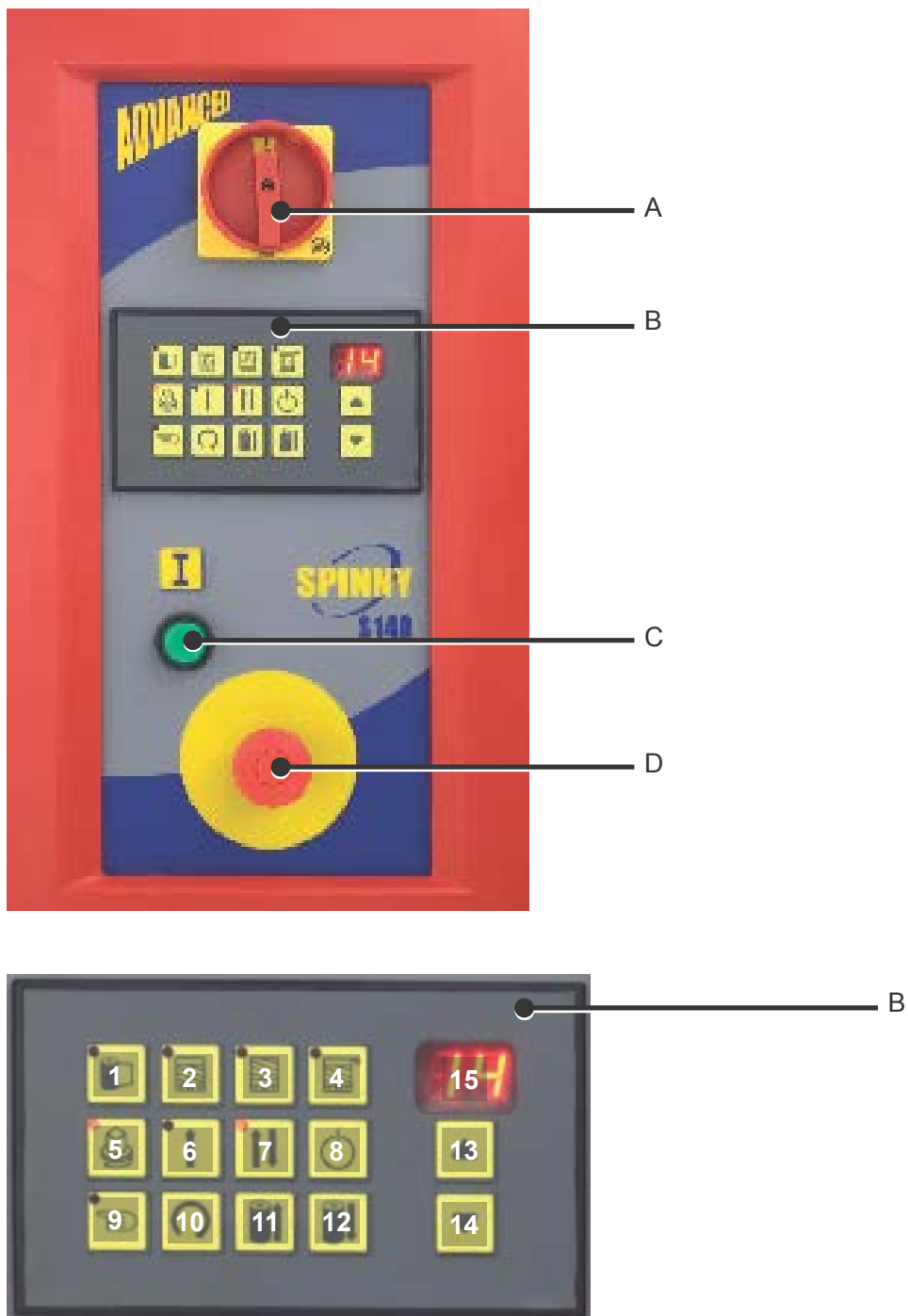
It is strictly prohibited to allow unauthorized and/or untrained personnel to use the machine.

The operators carrying out the consented operations on the machine must receive adequate training regarding the use of personal safety protection such as work shoes, gloves, etc. that will allow them to eliminate all the risks deriving from the various machine activities.



5.1 Description of commands

Models S 140 Plus – S 140 Advanced





1	Film tensioning (model Advanced). When pressed (red led on) it enables the programming of the film tensioning values using the buttons 13 – 14. Parameters can be set also when the machine is in operation. Variations from 1 (minimum film tensioning) to 15 (maximum film tensioning)
2	Top wraps. When pressed (red led on) it enables the programming of the pallet top wraps using the buttons 13 – 14. Parameters can be set only when the machine is not in operation. Variations from 1 to 9.
3	Bottom wraps. When pressed (red led on) it enables the programming of the pallet bottom wraps using the buttons 13 – 14. Parameters can be set only when the machine is not in operation. Variations from 1 to 9.
4	Overlapping. When pressed (red led on) the parameter which regulates the delay (in seconds) of the photocell of the pallet height can be modified using the buttons 13 – 14 . Parameters can be set only when the machine is not in operation. Variations from 0,1 to 5.
5	Adjustment of turn-table rotation speed. When pressed (red led on) it enables the programming of the turn-table rotation speed using the buttons 13 – 14 . Parameters can be set only when the machine is not in operation. Variations from 1 to 15.
6	Single wrapping cycle. When pressed (red led on) the machine is ready to start the single wrapping cycle, upward only. It works only with machine not in operation.
7	Double wrapping program. When pressed (red led on) the machine is ready to start the double wrapping cycle, upward and downward. It works only with machine not in operation
8	Enable key Allows you to turn on the power supply to the electronic switchboard.
9	Manual or automatic wrapping cycle. When pressed (red led on) it enables the manual wrapping cycle mode. The manual mode will be automatically deactivated if the machine is not used for 30 minutes or if this key is pressed again. Can be set only when the machine is not in operation.
10	Turntable rotation. In manual mode, it causes the soft start of the turntable rotation.
11	Film coil carriage upwards. In manual mode, it causes the upward movement of the film carrier
12	Film coil carriage downwards. In manual mode, it causes the downward movement of the film carrier



13	Increase value key. Key for increasing parameter value.
14	Decrease value key. Key for decreasing parameter value.
15	Display. Shows the value of the selected parameter.
A	Main switch. Turn in clockwise direction to position "I" to supply power to the machine
B	Control panel. Synoptic panel with display for the programming of the pallet wrapping machine
C	Start cycle. Start the wrapping cycle in automatic mode.
D	Emergency. If pressed it stops the machine at any point of the wrapping cycle.



Important!

For safety reasons the command button "C" start cycle has a programmed delayed effect. To activate it press the button for at least one second.



Important!

**Pressing the button (C) during the wrapping cycle, the machine stops the movement of the film carrier while the turntable continues its rotation.
The film carrier does not move until the key is not released.
This can be useful to reinforce the wrapping of the pallet in a certain position.**

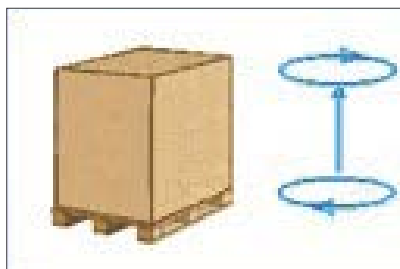


5.2 Cycle description

The control panel lets you set 4 different wrapping programs:

1. SINGLE CYCLE
2. DOUBLE CYCLE
3. DOUBLE CYCLE WITH TOP COVER
4. MANUAL CYCLE

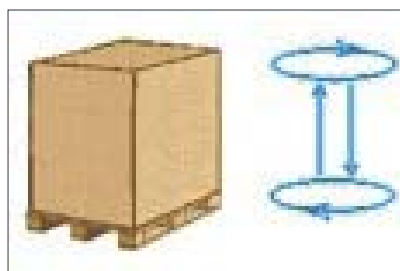
In each wrapping cycle, it is possible to set different parameters according to your needs.



1. SINGLE CYCLE

Spiral wrap cycle upwards only. At the end of the cycle the film coil carriage stops in the upper position and the (C) button starts flashing. Pressing the (C) button the film coil carriage is moving downwards and when it reaches the bottom, the machine is ready to start a new wrapping cycle.

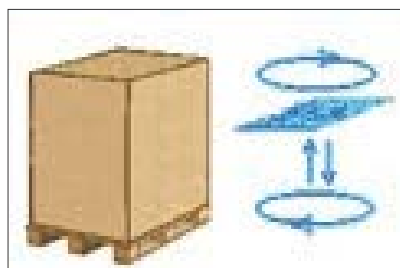
Cycle: bottom wraps – upward spiral – top wraps – turntable stop in start position



2. DOUBLE CYCLE

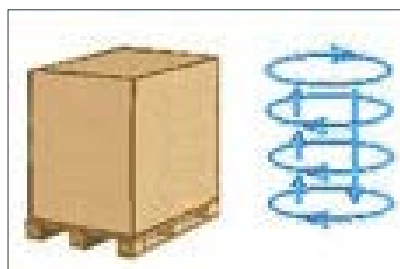
Wrap cycles with the film coil carriage moving first upwards and then downwards, with a criss-cross wrapping result.

Cycle: bottom wraps - spiral upwards - top wraps - spiral downwards – turntable stop in start position.



3. DOUBLE CYCLE WITH TOP COVER

Spiral wrap cycle moving upwards only. The machine stops with the film coil carriage in the upper position. The (C) button starts flashing. The top cover has to be placed manually on the load. Pressing the key 8 on the commands panel, the film coil carriage is moving downwards and when it reaches the bottom, the turntable stops in the starting position and the machine is ready to start a new wrapping cycle.



4. MANUAL CYCLE

Manual wrap cycle. After having placed the load on the turntable, make sure that the key 15 is activated with the red led on. Press the button (C) to start the turntable rotation and with the keys 10 and 11 start the upward and downward movement of the film coil carriage. To stop the wrapping cycle, press again the button (C), it will start flashing, the turntable will slow down and stop in the starting position.



5.3 Programming working cycles.

Machine version: standard

Programming of the wrapping cycles with machine not in operation

To access the programming mode proceed as follows.

- rotate clockwise the main switch (A) until the position (I)
- make sure that the emergency button (D) is deactivated.
- press the key (6) to supply power to the electronic switchboard.

Choose the parameter to be modified pressing the keys on the control panel. When the red led of the selected key is on, modify the parameter pressing the keys (13) and (14).

Parameters that can be changed during operation

The control panel allows some pre-programmed parameters to be modified during the working cycle. Here below the instructions how to modify them.

- Change of film tensioning

Press the key (1) on the control panel, and using the keys (13) or (14) change the value (values from 1 to 15).

Change the turntable speed

Press the key (5) on the control panel, and using the keys (13) or (14) increase or decrease the rotation speed (values from 1 to 15).



Important!

All variations are immediately memorized in the cycle being used

Programming a VE machine

The parameters that can be inserted are the following:

Film carrier speed (upwards)	Key 11	Values from 1 to 9
Film carrier speed (downwards)	Key 12	Values from 1 to 9

Upward and downward parameters according to the inserted value are as follows:

Value = 1	Upward 2"	Stop 6", upward and downward
Value = 2	Upward 4"	Stop 6", upward and downward
Value = 3	Upward 2"	Stop 3", upward and downward
Value = 4	Upward 4"	Stop 3", upward and downward
Value = 5	Upward 2"	Stop 2", upward and downward
Value = 6	Upward 4"	Stop 2", upward and downward
Value = 7	Upward 2"	Stop 1", upward and downward
Value = 8	Upward 4"	Stop 1", upward and downward
Value = 9	Upward and downward of the film carrier without interruptions	

5.3.1 Programming working cycles. Machine version: 4 Programs Enhanced





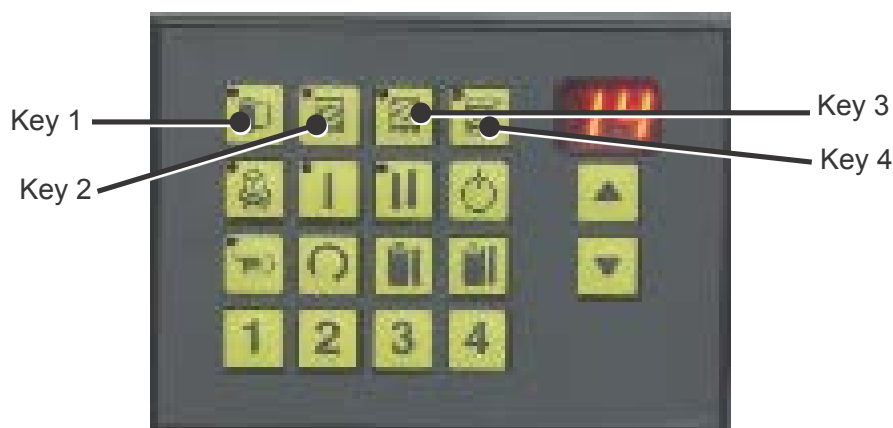
Operations to be carried out by a technician (programmer)

Turn clockwise the main switch (A) to position “I”, while pressing the key (1).

The leds of the display start rotating in anti-clockwise direction until the password is inserted.

In order to avoid that an operator can discover the password, all the keys will be accepted even if they are not correct.

The correct password is: 1, 2, 3, 4



The parameters that can be inserted are the following:

Film stretch	Key 1	Values from 1 to 15
Top wraps	Key 2	Values from 1 to 9
Bottom wraps	Key 3	Values from 1 to 9
Overlap	Key 4	Values from 0,0 to 5,0
Rotation speed	Key 5	Values from 1 to 15
Film carrier speed (upwards)	Key 11	Values from 1 to 9
Film carrier speed (downwards)	Key 12	Values from 1 to 9

Upward and downward parameters according to the inserted value are as follows:

Value = 1	Upward 2"	Stop 6", upward and downward
Value = 2	Upward 4"	Stop 6", upward and downward
Value = 3	Upward 2"	Stop 3", upward and downward
Value = 4	Upward 4"	Stop 3", upward and downward
Value = 5	Upward 2"	Stop 2", upward and downward
Value = 6	Upward 4"	Stop 2", upward and downward
Value = 7	Upward 2"	Stop 1", upward and downward
Value = 8	Upward 4"	Stop 1", upward and downward
Value = 9	Upward and downward of the film carrier without interruptions	



It is also possible to execute a single cycle or a double cycle.

Single cycle: Key 6

Double cycle: Key 7

When the parameter to be set is selected, a red LED turns on and the actual value of the parameter appear on the display. You can modify this value by using the key 13 (increase) or the key 14 (decrease).

Values are saved as soon as a new key is pressed.

The technician programmer will be able to verify the wrapping cycle and to modify the parameter values while the machine operates by pressing the secondary circuit activation key (6) once.

If the same key is pressed twice, the possibility is disabled.

Operations to be carried out by an operator

In order to avoid that an operator can vary the values of the parameters, the keyboard is automatically blocked when the programming is finished.

Only the following operations can be done:

- Selection of the wrapping cycle: P1 – P2 – P3 – P4
- Regulation of the film tension: Key 1
- Upward speed of the film carrier: Key 11
- Downward speed of the film carrier: Key 12

Before starting the wrapping cycle, the operator can select which program to use, while the values of the parameters can be set also if the machine is operating.

When the parameter to be set is selected, a red LED turns on and the actual value of the parameter appear on the display. You can modify this value by using the key 13 (increase) or the key 14 (decrease).

It is not necessary to confirm the inserted value.

If the selected program is a single wrapping cycle, the film carrier stops on top. It is possible to place a top cover and restart the cycle which will ends without interruptions.

It is also possible to execute a cycle using manual commands to move the film carrier (see paragraph 5.2).

To start the automatic cycle or for more information about the use of the machine, please see the Chapter 5.



Attention!

Manual cycle program.

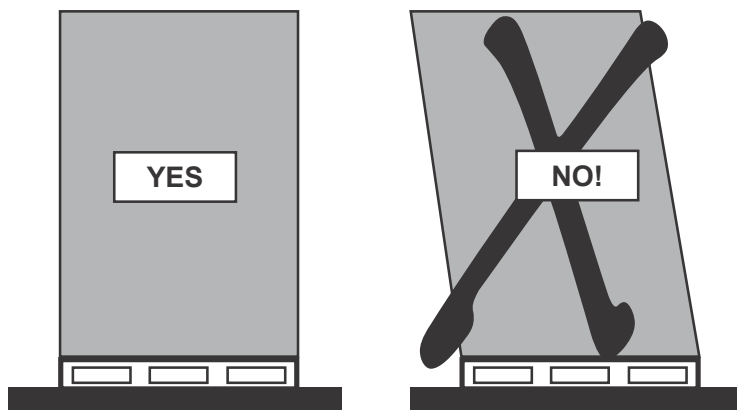
The control panel automatically close the manual operation after 30 seconds of inactivity.



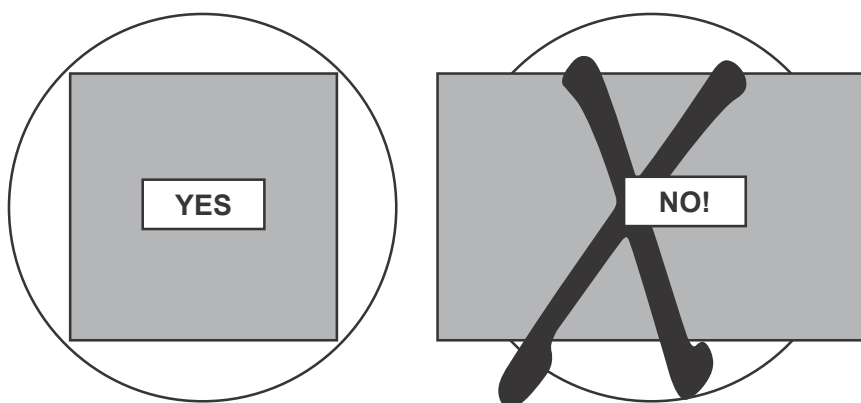
5.5 Positioning of load to be wrapped



Attention !
The load must be perfectly positioned on the turntable.



Attention !
The load must not extend beyond the diameter of the turntable.



5.6 Scheme of passage of the film through the rollers



Internal adhesive



External adhesive



5.7 Operator positioning

During the work cycle only one operator is necessary, standing directly in front of the command panel where the emergency button can be used to stop the machine if needed.

5.8 Work cycles



Attention!
The operator must check that there are no people or animals in the work area.
No extraneous objects must be on the machine, especially on the turntable.

Manual wrapping cycle

- Position pallet to be wrapped on the platform
- Place a roll of stretchable film on the carriage and pass an angle of the film as indicated in paragraph 5.6
- Anchor the film to the knob on the turntable
- Turn general switch (A) clockwise to position "I"
- Check that the emergency STOP button (D) is out. Press the key (8) to supply power to the electronic switch board. At this point the machine has power and is ready.
- Press button (C) to start table rotation
- Press the key (11) to move the film coil carriage upwards and the key (12) to move it downwards to obtain the desired wrapping.
- Regulate the film tension according to your needs by adjusting the brake by using the hand-wheel on the film coil holder carriage. Turn in clockwise direction to increase tensioning, turn counter clockwise to decrease (version "PLUS") or using the button (1) (version "ADVANCED").
- (see also par. 5.3)

Automatic wrapping cycle

- Position pallet to be wrapped on the platform
- Place a roll of stretchable film on the carriage and pass an angle of the film as indicated in paragraph 5.6
- Anchor the film to the knob on the turntable
- Turn general switch (A) clockwise to position "I"
- Check that the emergency STOP button (D) is out. Press the key (8) to supply power to the electronic switch board. At this point the machine has power and is ready.



- Select the desired wrapping cycle on the control panel (see “5.2 Cycles description” and “5.3 Programming”).
- Press the button (C) START CYCLE for at least one second.

For more information on the different programs, see paragraph “5.3 Programming” .

5.9 Unwanted electrical interruptions

A peak in current, a short circuit, or overheating of the motors will cause the protection devices to turn off the power to the machine. Action to be taken if one of the protection devices goes off:

Magneto thermal switches

If one of these devices goes off, do the following:

- Turn the machine off by turning the main switch (A) to “0” position and open the electrical panel
- Reset the switch that went off
- Restart the machine following the start up procedures, making sure to check for any faults or problems that could occur because of involuntary errors made during this operation



Attention!

If the electrical supply interruption persists, proceed by checking for the possible cause (short circuits, tension problems, etc) or contact Effe3Ti's Technical Assistance Service.

Fuses

On the inside of the electrical panel there are four fuses for auxiliary protection. A peak in tension could burn them out. Turn the machine off by turning the main switch (A) to “0” position and open the electrical panel. Find the burnt fuse using a tester and replace with one that has the same amperes.



If authorized and trained, the operator can perform these operations “himself”.



5.10 Stopping the machine during the wrapping cycle

In case of emergency, stop the machine press the red button (D) EMERGENCY STOP.

5.11 Stopping the machine at the end of working day

Press the red button (D) EMERGENCY STOP and turn off the electrical power by rotating anticlockwise the main switch (A) to the position (0)





Maintenance Section



*In case of any doubts whatsoever, do NOT interpret yourself !
Please immediately call for service assistance EFFE 3 TI srl
Tel.: 0039 0163.828.911*



Warning!

Special maintenance must be done exclusively by the manufacturer's technicians.

The manufacturer advises you to perform a complete service inspection slip at least once every two years to guarantee optimal safety conditions.



Warning !

The maintenance technician must note all the repairs and maintenance work done on the machine in the register included in this manual.



6.1 Informational notes

In this section we describe the ordinary maintenance and inspection operations which are essential to guarantee the correct regular working operation of the machine.

Any other maintenance work which could be necessary to repair broken parts or operating troubles must be expressly authorized by the manufacturer. In these cases always communicate to the manufacturer the identification data of the machine (model registration number, electrical system identification numbers, pneumatic system identification numbers, etc.)

For important repairs it is best you contact EFFE3TI, whose qualified and specialized personnel, having the technical experience of the design and construction of the machine and are always available and ready to quickly intervene in case of need.

For the maintenance and/or the substitution of the commercial components installed on the machine always follow the instructions given directly by the manufacturer and written in their manuals and specific catalogues.

6.2 General safety norms

The maintenance work must be performed by specialized technicians who are trained in the specific sectors regarding the machine.

The technicians are:

- Mechanical
- Electrical systems

It is the duty of the Safety Supervisor to insure the professionalism and competence of the above mentioned personnel.

Before any maintenance work the Safety Supervisor must:



- Remove any extraneous people or materials from the work area
- Make sure that the maintenance person has all the correct tools and that the tools are in proper working order
- Check that there is enough lighting to carry out the job, and furnish portable lighting if necessary
- Check that the maintenance technician is wearing all personal safety devices need for the job (gloves, glasses, shoes, etc.)
- Check that the maintenance technician has carefully read and understood the instructions given in this manual and knows the machine perfectly well.

Before starting the maintenance technician must:

- Isolate and lock off all power supplies and put all of the machine's safety blocks in place.



Attention!

If it is absolutely necessary to operate with the machine switched on and the mechanisms running, the maintenance technician must maintain a safe distance and be near the emergency stop button.

The general switch should be positioned on “0” and must be locked to prevent the machine from turning on involuntarily. The lock’s key must be kept by the maintenance technician.

At the end of maintenance /and/or repair work, and before restarting service, the maintenance technician must check the complete working cycle, all the safety devices, and all protection guards.

Works on the motors or other electrical components must be only done by the specific electrical technician who is authorized and trained by the Safety Supervisor.



Attention!

After every maintenance operation the Safety Supervisor must also check the safety conditions of the machine, its safety devices and protective guards.

During maintenance we advise you to place a “use prohibited” sign on the command panel.

The maximum reliability and a low cost of maintenance are the result of a scrupulously planned regular maintenance program carried out during the entire working life of the machine.

Scrupulously respect the timing of the programmed maintenance schedule and base your maintenance operations on the amount you use the machine.



Always use tools in perfect working order, specifically created for the job. The use of the wrong or damaged tools can seriously damage the machine.

Never work on or change the position or setting of the limit switches, unless expressly needed to eliminate a breakdown. Their modification can result in serious damage to the machine.

Clearly mark the un mounted parts to insure that you can correctly remount them.

Before mounting any group of parts, always lubricate inside and out all coupling surfaces. Substitute all washers, spacers, and gaskets with original parts before remounting components.

Always make sure that the power supply to the machine is grounded and that it corresponds to prevailing electrical norms.

Before starting the machine always check that the maintenance personnel is at a safe distance and that no tools have been left on, inside, or near the machine.



6.3 Cleaning



Before any maintenance or repair operations you must accurately clean all dirt from the machine using a vacuum cleaner or appropriate solvents. Avoid using compressed air because it could leave deposits of dirt and cause harm to people present during cleaning.

Clean away all traces of persistent dirt using dry, soft rags that leave no fraying, or with very flexible bristle brushes.

If the dirt is crusty or difficult to remove with dry rags or brushes, use a specific liquid solvent. Use personal safety devices.

Buy only the correct solvents for manual use.
Check the solvent's characteristics as declared by its manufacturer.



Attention!
Use all solvents away from open flames and ventilate area well.
Avoid prolonged exposure to the vapours.
Ignoring these norms can cause harm to the personnel.

6.4 Maintenance of mechanical parts

Perform all un mounting and moving of heavy parts (more than 25 Kgs) using hoists, block and tackle, lifts, or carriers.

If detailed diagrams of parts are not available, mark each part and note its position to avoid errors during remounting.

Immediately substitute all nuts and bolts that present signs of wear and tear to threads and on key (spanner) seating.

For all threading and unthreading of nuts and bolts do NOT use tubes or extensions on wrenches or tools to increase their power. If ratchets wrenches or special tools are used make sure they are the correct measurement for the component in question.

Use particular attention and care when using hydraulic or pneumatic tools.

Before un mounting parts that are particularly rusted or oxidized use an appropriate unblocking liquid.

Before remounting apply a layer of lubricant to all surface of coupling parts.

Take particular care when mounting the special anti-unscrewing devices used by manufacturer (flat washers, elastic washers etc.).
Always substitute worn parts.



In particular the nuts and the anti-unscrewing ring nuts, which have blocking rings in plastic material, must be substituted every time they are un mounted because the material loses its effectiveness.

Take particular care and attention when checking the efficiency of the lubrication systems and devices.



Attention!
Always use personal safety devices such as gloves, safety shoes, glasses, etc

6.5 Maintenance of the electrical system

Before doing any maintenance on the electrical system, isolate the machine's power supply from source (general power supply switch)

Always carefully check the terminals, clips, the isolating plastic or rubber protection on wires, and the covering seals.

This must always conform to the level of protection declared by manufacturer.

Immediately substitute all worn gaskets and sheathings. Check and if necessary replace the labels and identification tags of the wires and components, following the instruction on the diagrams.

Check that all danger signs, warning and explanatory plaques foreseen by law are perfectly legible and attached correctly.

Do NOT use compressed air for cleaning. Use vacuum cleaning only.

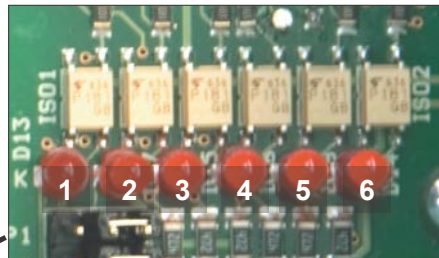
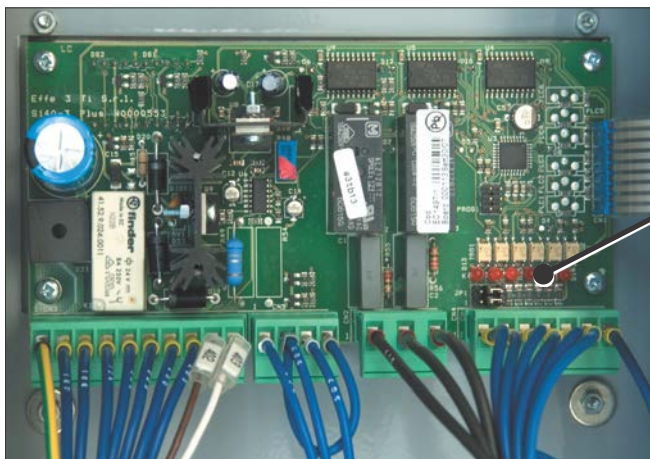
The substitution of any broken control components must be conform to those specified by the Norms of EN 60204-1:1997 regarding colour, protection, dimensions, etc.



6.5.1 Electrical systems verification

To make the electrical verifications and the operating of the photocells easier, 6 LED have been inserted on the control board.

Turning on the electrical device to be verified, the corresponding LED will turn on. See below diagram.

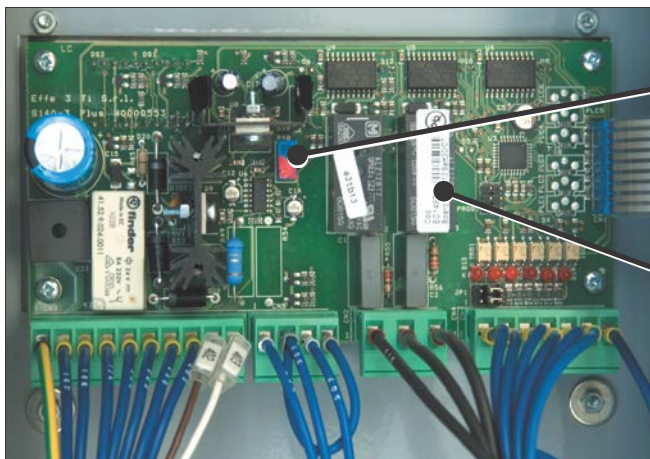


1. Start cycle key
2. Package height photocell
3. Down end of the film carrier
The security end switch FCS on the film carrier activates the same signal of the end switch FCB
4. Up end of the film carrier
5. End in position of the turntable
6. Auxiliary insertion

6.5.2 Electromagnetic brake regulation

The electromagnetic brake which regulates the film tension in the Advanced version, can be regulated to work with a film thickness of 23 μ . The electromagnetic brake can work with a maximum tension of 24V DC, the electronic board which controls the brake is set by the manufacturer to a maximum value of 9V DC.

It is possible to verify the tension using a tester regulated on 24V DC positioned on the clamps 400 and 401 while the machine operates its wrapping cycle. Move the screw indicated in figure if it is necessary to vary the brake action.



Electromagnetic brake regulation screw

Rotate clockwise to increase;
anti-clockwise to decrease.

In case of failure of the control board, always indicate the number written on the label.



Attention!

This operation is potentially dangerous and should only be carried out by authorized and qualified personnel.



6.5.3 NPN-PNP card settings

In order to keep the compatibility with the previous version, the standard electronic board is set to work in mode NPN, (see figure 1), but it could be sometimes necessary to set the board in mode PNP, for example when using special photocells like photocells for black objects. If this happens, it is necessary to change the position of the connectors as in the figure below.

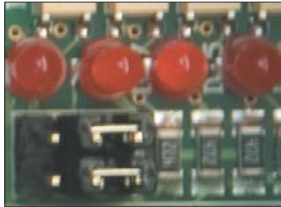


figure 1 – Settings NPN

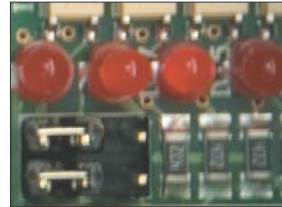


figure 2 – Settings PNP

Attention: if the board is not correctly set, NPN or PNP according to the type of installed photocells, the film carrier will rise up to the high position and the LED 2 will never turn on.

Here below the most used photocells and the setting to be used:

S60 PA2 C11 NN Standard photocell	Mode NPN
S62 PA2 M31 PP Photocell for black objects	Mode PNP
S60 PA2 C11 PP Photocell used in other Spinny versions	Mode PNP



6.6 Programmed maintenance



Attention!

Before starting any maintenance or cleaning operation always use personal safety protection devices.

Before starting any maintenance operation isolate all power supplies with the general switch should positioned on “0” and locked to prevent the machine from turning on involuntarily.

The lock’s key must be kept by the maintenance technician.

Place a warning sign near the general power switch:



**MACHINE MAINTENANCE
DO NOT TURN POWER ON!**

Before restarting check the entire system. Check that all guards have been remounted and that all safety devices are operative.

After every maintenance operation carry out a couple of trial work cycles to make sure everything is working correctly.

Ignoring these precautions can cause serious harm to personnel.

It is prohibited for cleaners to un mount any protective devices from the machine.

Residual risks to maintenance personnel

Apart from the general risks cited in section 2.5 in this manual, the maintenance technician could be exposed to the following risks:

- Possible contact with pointed parts or sharp cutting edges
- Possible contact with oily and slippery surfaces
- Possible falling of heavy parts
- Possible contact with parts in movement during manual moving of the single components
- Possible risk of electrical shock



Attention!

The operators must be informed on the possible risks and trained on precautions to avoid them.



Periodically check, every 500 working hours, or every 6 months:

- The wear on the rotating table support wheels
- The rotating table transmission belt, if needed replace or regulate tension of.
- The lift belt for the film holder carriage.
- The wear of the wheels on the film carrier.



N.B. We strongly advise you to substitute these two belts every 1000 working hours

To carry out the first two points of the maintenance programme you must remove the table disk from the seating on the table. To do this unscrew the 4 screws (M8x25 5539.08x25) on the disk and lift the disk by inserting an eyebolt (M 10 threading) in the threaded hole, located in the centre of the disk.



To regulate the tension of the belt use the adjustment bolts indicated in the figure. To increase tension tighten bolts clockwise, to decrease tension release bolts anti-clockwise.



It is important to check the wear of the sliding wheels of the film carrier. The rupture of one or more wheels may cause the derailment of the film carriage.





Support wheels replacement



The turntable support wheels may worn out during the works of the machine. To replace them, first remove the seeger ring which keep them in position, then slip the wheels off and replace them with new original ones. Lock the wheels on the pins remounting the seeger rings.

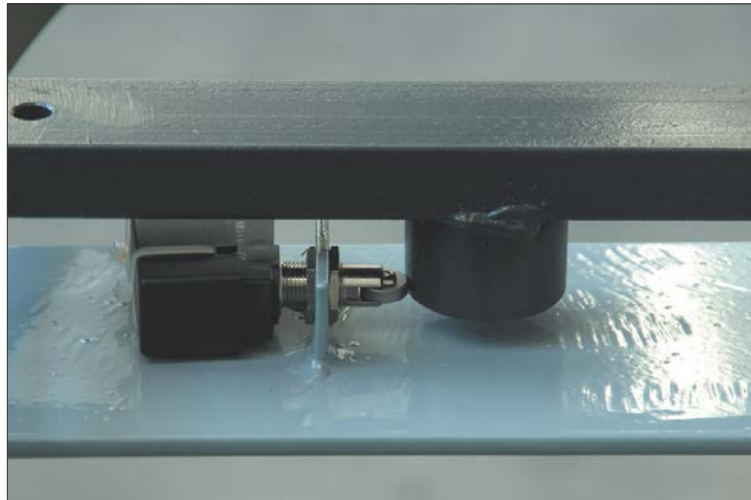
Guide wheels replacement



When the guide wheels are worn out, to replace them untight the turntable's transmission belt. Remove the seeger ring which keep them in position, then slip the wheels off and replace them with new original ones. Lock the wheels on the pins remounting the seeger rings. Thread the transmission belt on the pulleys and tight it. Check the correct tension of the belt starting the turntable: it shouldn't slip on the turntable's pulley.



Adjustment of the turntable positioning limit switch

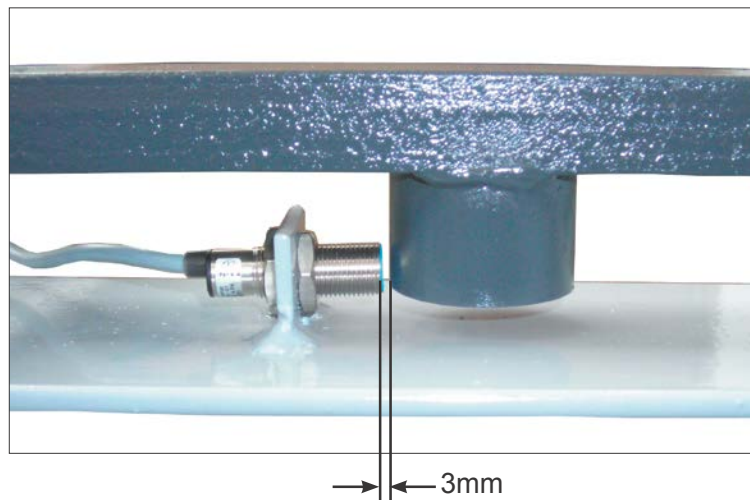


After a limit switch has been changed, adjust the distance between the wheel and the cam. When activated the limit switch head must move backward into a range of 2mm and 2,5mm. In order to check the correct functioning of the limit switch, the LED no.5 on the control board must switch on when activated.



ATTENTION! If the limit switch doesn't work, the film carrier won't start rising during the automatic cycle.

Adjustment of the turntable magnetic sensor



After a sensor has been changed, adjust the distance between the wheel and the cam, which should be 2mm or 3mm. If the sensor substitutes a limit switch, please connect it as follows:
blue wire (negative) to the wire no. 307 on the white connector of the control cabinet
brown wire (positive) to the wire no. 400 on the white connector of the control cabinet
black wire (signal) to the wire no. 305 on the white connector of the control cabinet



6.7 What to do if the machine doesn't function properly

DEFECT	CAUSE	REMEDY
<i>The machine does not work</i>	<i>It is disconnected from the power source</i>	<i>Verify the electrical connection to the main line by testing the tension to the N – R clamps (230V)</i>
	<i>The fuses F1 F2 are burned</i>	<i>Check the continuity of the fuse and if Necessary substitute them with another of the same size (4 Ampères)</i>
<i>The control panel has power but doesn't work</i>	<i>The emergency button is activated</i>	<i>Disactivate the emergency button by turning it clockwise and start the auxiliary circuit (ch.5)</i>
	<i>The auxiliary circuit was not activated</i>	<i>Push the enable key (ch.4.4)</i>
	<i>An anomalous function could have happened</i>	<i>Turn off the machine and restart it</i>
<i>The coil holder doesn't rise; try to move with manual command</i>	<i>Check the thermo switch inside the Electrical panel</i>	<i>Push the black button of the thermo relay to 1</i>
	<i>The limit switch situated under the Rotating table doesn't work</i>	<i>Verify that the white connector is hooked up correctly, that the photocell isn't broken and that the board has power (ch.6.5.1)</i>
	<i>For black, transparent, or highly reflective materials</i>	<i>Verify that the photocell is reading the product that's being packaged.</i>
<i>The coil holder has raised up to the top of the machine and does not descend</i>	<i>The photocell doesn't work or it's not connected</i>	<i>Verify that the white connector is hooked up correctly, and that the board has power (LED 2)</i>



DEFECT	CAUSE	REMEDY
<i>The coil holder has raised up to the top of the machine and does not descend</i>	<i>The belt is wound in the wrong direction</i>	<i>See chapter 6.7.1</i>
<i>The rotating table doesn't rotate</i>	<i>For machines with inverter, the power source could be disconnected</i>	<i>Turn off the general switch. Wait about 30 seconds and start up the machine again, try to rotate manually the turntable with the button on the panel</i>
	<i>There is not electric supply To the motor</i>	<i>Verify the connection of the plug or test the presence of the electric power</i>
	<i>The rotation speed value on the panel is equal to "0"</i>	<i>Increase the parameter's value</i>
<i>The rotating table is jerking while moving</i>	<i>The transmission's belt could be loose or could need to be changed</i>	<i>Tighten the belt as indicated in the manual (ch. 6.6)</i>
<i>The rotating table doesn't stop in phase</i>	<i>The position's limit switch doesn't work</i>	<i>Verify that the white connector is hooked up correctly.</i>
<i>The film is being stretched too much</i>	<i>The stretching value is set too high</i>	<i>Reduce the parameter's value</i>
	<i>The brake is worn</i>	<i>Try to lightly grease the electromagnetic Brake on the area where it touches the breaking disk.</i>
<i>The film is too loose</i>	<i>The brake doesn't get enough tension</i>	<i>Increase the breaking parameter's value</i>
	<i>The brake is damaged</i>	<i>Verify that the black connector on the coil holder is hooked up correctly</i>
		<i>Substitute the brake</i>



6.7.1 Troubleshooting

Problem:



The coil holder becomes stuck at the top of the machine column and the roll holder belt is wound in the wrong direction.

Action:



Unwind the belt completely using the roll up button on the control panel until the belt is fully unwound and then begins to wind itself in the right direction on the pulley. After this occurs press the reset button and verify that the belt is winding in the correct direction.



Attention: The limit switch does not stop the roll holder if the belt winds in the wrong direction on the pulley.



Attention: Also check the thermal switch inside the electrical box verifying that the black button of the thermal switch is engaged and has not popped up.



Cause:

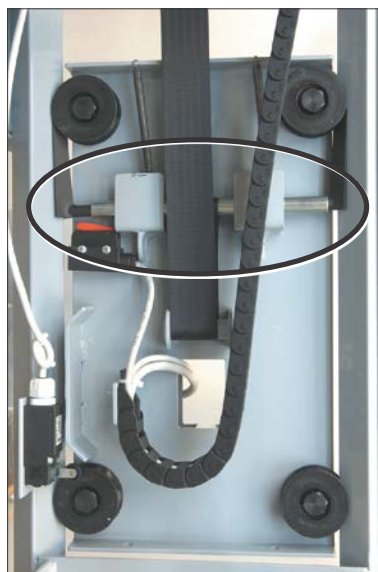
- Phases of the motor supply not correct (please check the movement of the moving parts any time you change the connection point of the main supply.) See paragraph “4.4 Starting up.” Activation of the coil holder security device, the roll holder is equipped with an anti-drop security brake. This security brake is installed to avoid damage to the machine or the operator in case the coil holder belt becomes damaged and breaks. External events can activate the security break such as if the operator manually lifts the coil holder and pushes it up the column or during the changing of the coil the operator lifts the coil holder.



***Uncouple the anti-drop security device prior to resting the machine.
(see figure below)***



CORRECT POSITION
tube is centered



WRONG POSITION
tube is not centered



Feet security system:

If starting the auxiliary circuit the board blinks and the circuit does not start up, check if the contact of the sensor of the feet security system is not active:

- verify that the feet security is not blocked
- verify that the circuit between the wires 200 - 2003 is closed



Spare parts Section



Components subject to wear (advised spare parts)

Spare parts can be ordered via fax,
(photocopying the form included) via internet, or by post.



Fax

00 39 0163 828990



E-mail

support@effe3ti.com



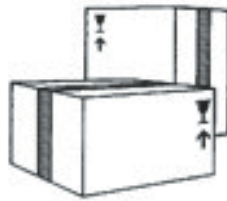
Mail

Effe3ti s.r.l.
Corso Garibaldi, 298
I - 13045 - Gattinara (VC)





EFFE 3 TI srl
C.so Garibaldi 298
I-13045 - GATTINARA (VC) - ITALY
Tel.: 0039 163 828911
Fax: 0039 163 828990
E-mail: info@effe3ti.com



FAX

Date ____/____/____

Page ____ of ____

Spare parts order form

Semiautomatic wrapping machine with rotating turntable Spinny

Registration number: _____

Year: _____

Transmitted by: _____

Tel.: _____

SPARE PARTS
DESTINATION

Address: _____

City: _____ Prov.: _____

Country: _____ Tel.: _____

Page: _____ Part N°: _____ Part Code: _____

Description: _____ Quantity: _____

Page: _____ Part N°: _____ Part Code: _____

Description: _____ Quantity: _____

Page: _____ Part N°: _____ Part Code: _____

Description: _____ Quantity: _____

Page: _____ Part N°: _____ Part Code: _____

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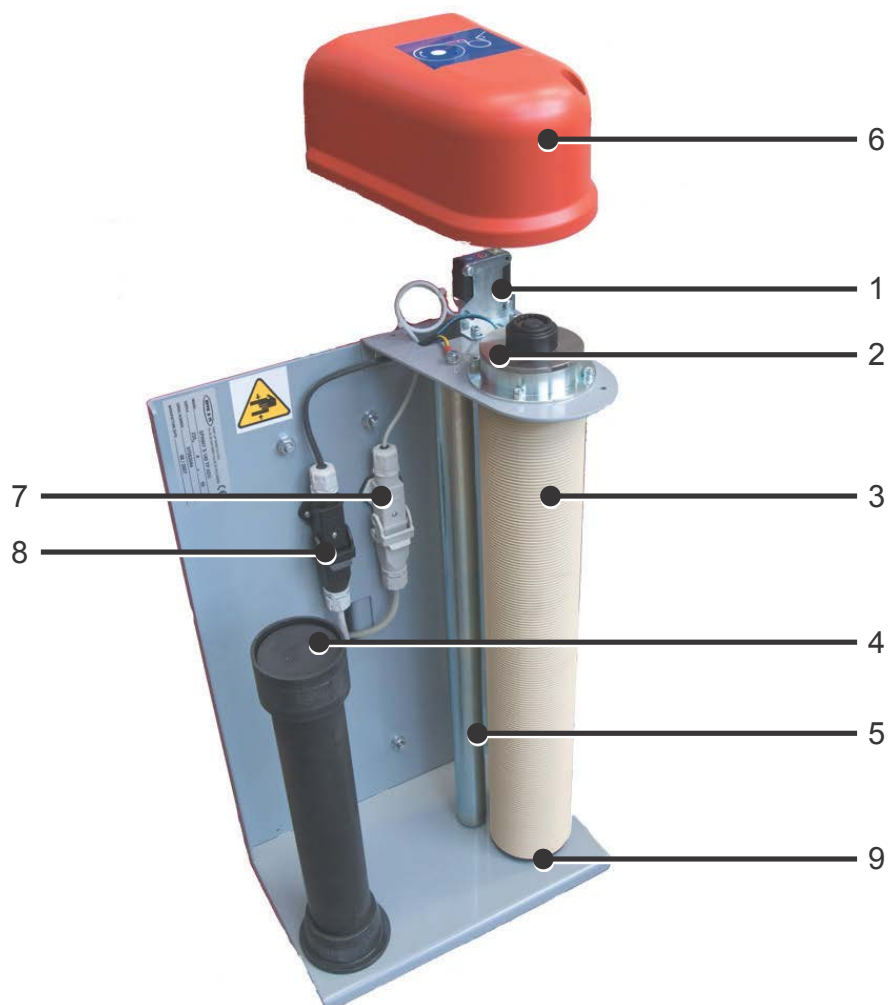
Page: _____ Part N°: _____ Part Code: _____

Description: _____ Quantity: _____





Elettromagnetic tensioning group (S 140 Advanced)



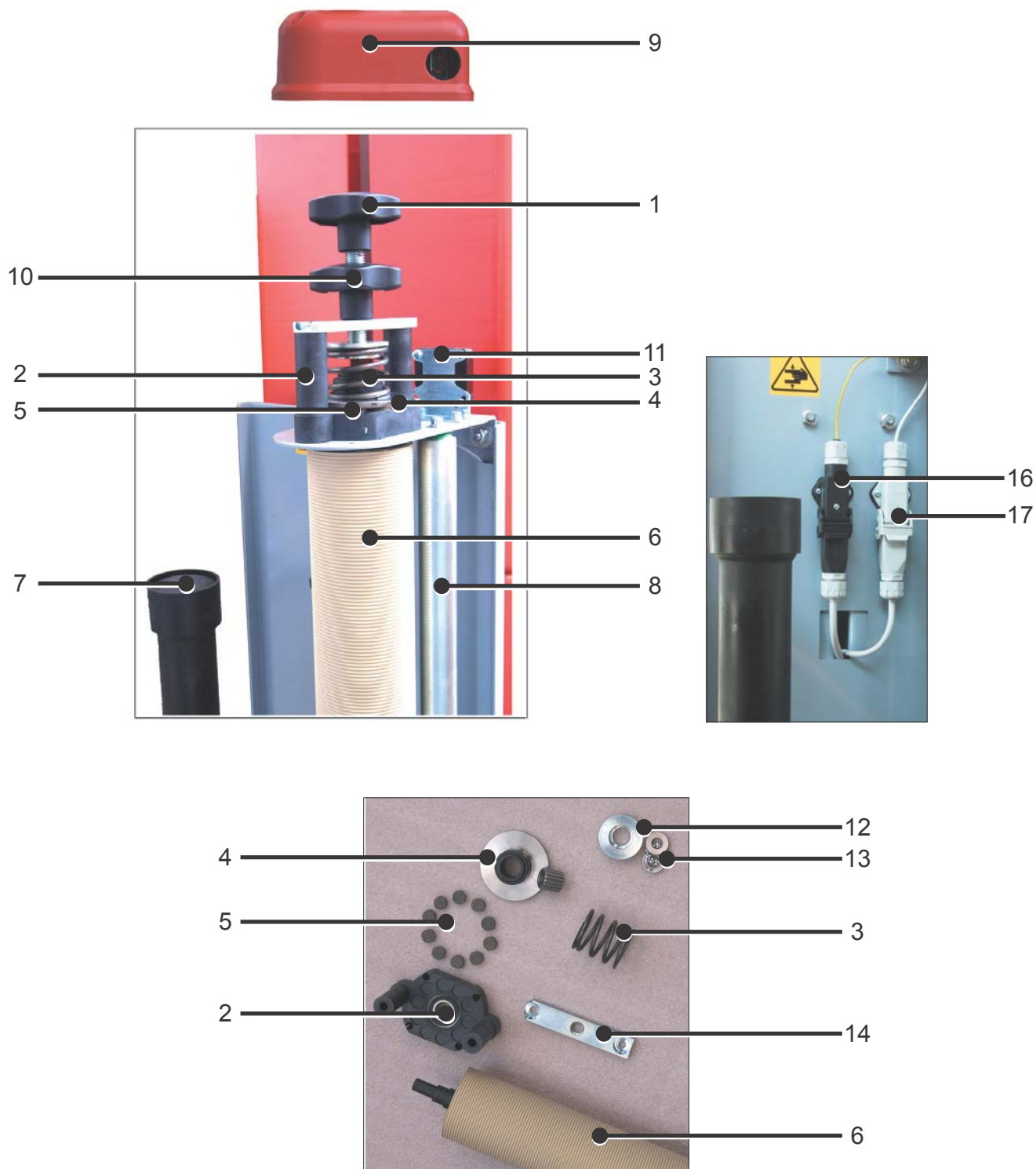
Ref.	Description	Code
01	Photocell	W0001008
01	Photocell for black and reflecting products	W0001496
02	Electromagnetic brake	Y0000056
03	Rubber tensioning roller	K0000008
04	Coil holder	K0000192
05	Zinc-plated neutral roller Ø 32	W0000065
06	Film coil holder guard S 200	Y0000094
07	White plug	Q0000050
08	Black plug	Q0000049
09	Bottom roll shaft	Y0000104

Semi-automatic wrapping machine with turntable mod. "Spinny" * S 140 Plus S 140 Advanced

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Mechanical tensioning group (S 140 Plus)

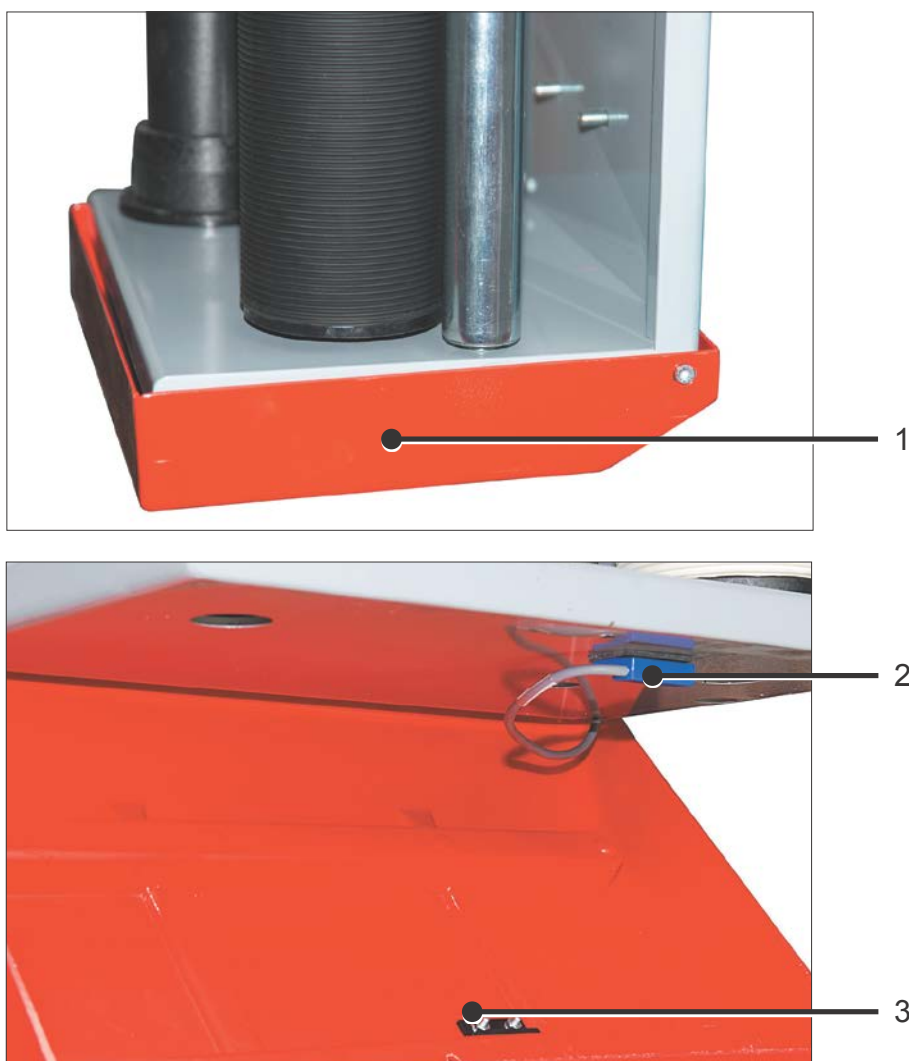




Ref.	Description	Code
01	Handle for pressure	W0000830
02	Brake support	Y0000064
03	Spring	Y0000098
04	Brake plate	W0001155
05	Friction disk Ø 15 x 5	Y0000095
06	Rubber tensioning roller	K0000008
07	Coil holder	K0000192
08	Zinc-plated neutral roller Ø 32	W0000065
09	Coil holder guard S 140	Y0000250
10	Handle	W0000831
11	Photocell	W0001008
11	Photocell for black and reflecting products	W0001496
12	Contrast spring	Y0000099
13	Ball bearing	51101
14	Upper bar	Y0000100
15	Bottom roll shaft	Y0000104
16	Black plug	Q0000050
17	White plug	Q0000049



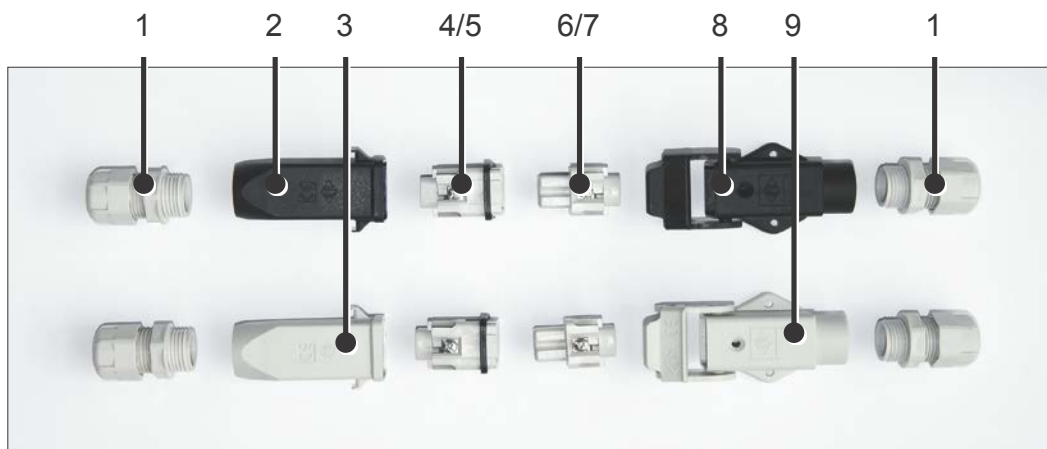
Safety foot device



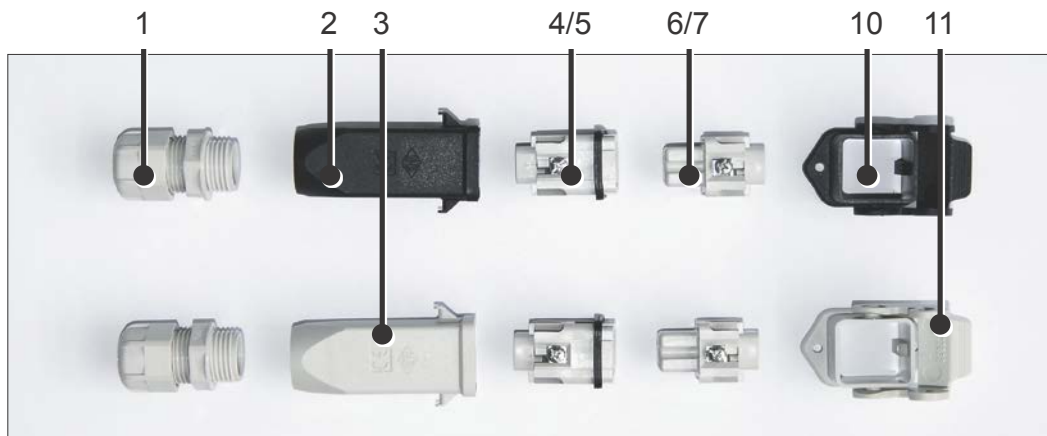
Ref.	Description	Code
01	Safety foot flap	Y0002867
02	Sensor Reed	W0000318
03	Magnet	W0000319
	Screws and hinges	W0001513
	Group with sensor	Q0000052
	Group without sensor	Q0000054



Plugs: Column - Coil holder



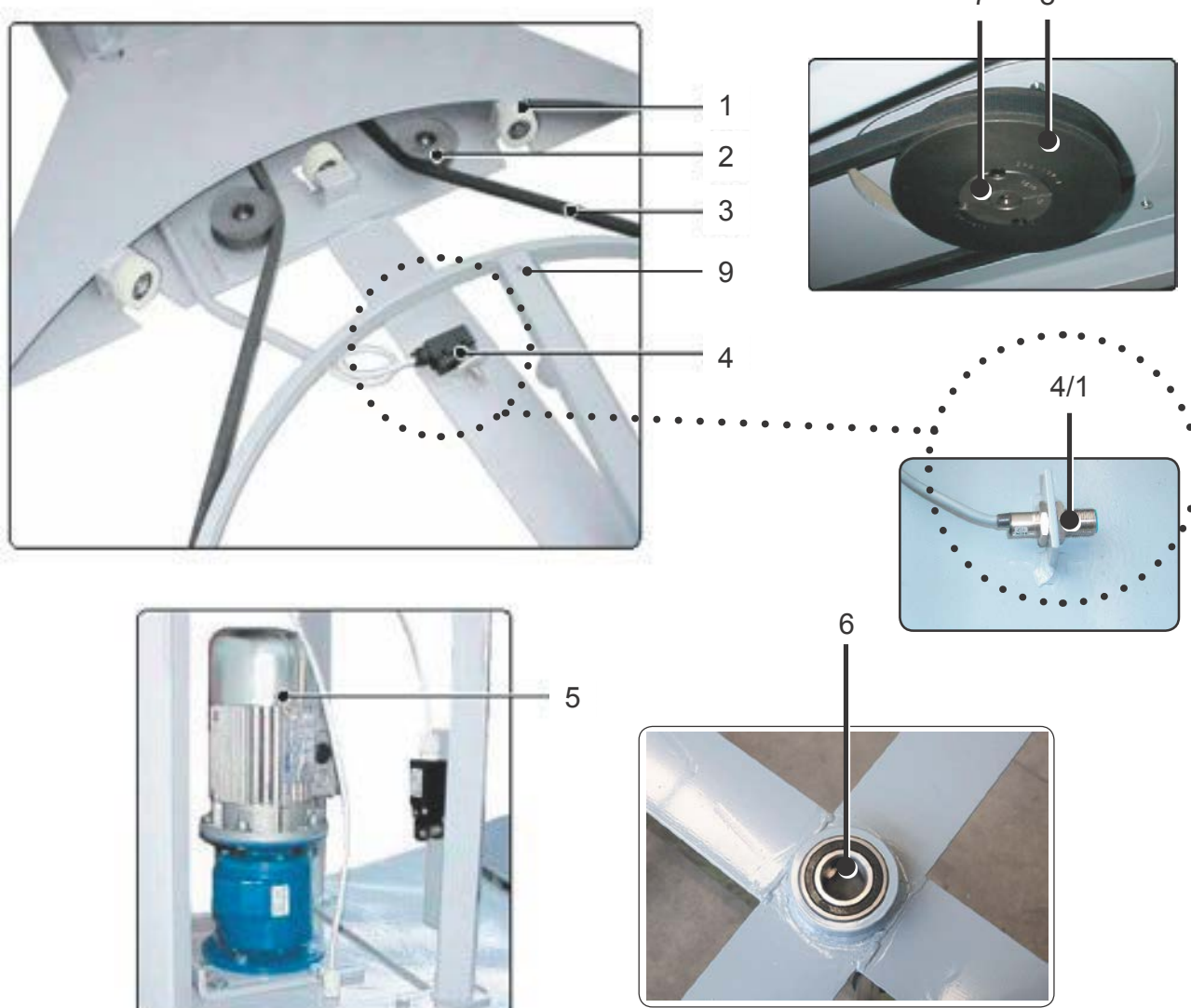
Plugs: Basement - Electrical box



Ref.	Description	Code
01	Cable retaining ring PG11	W0000028
02	Black mobile shell	W0000025
03	White mobile shell	W0000024
04	Plug male 3+T	W0000019
05	Plug male 4+T	W0000315
06	Plug female 3+T	W0000018
07	Plug female 4+T	W0000316
08	Black shell	W0000023
09	White shell	W0000022
10	Black shell	W0000021
11	White shell	W0000020



Base group (S140)

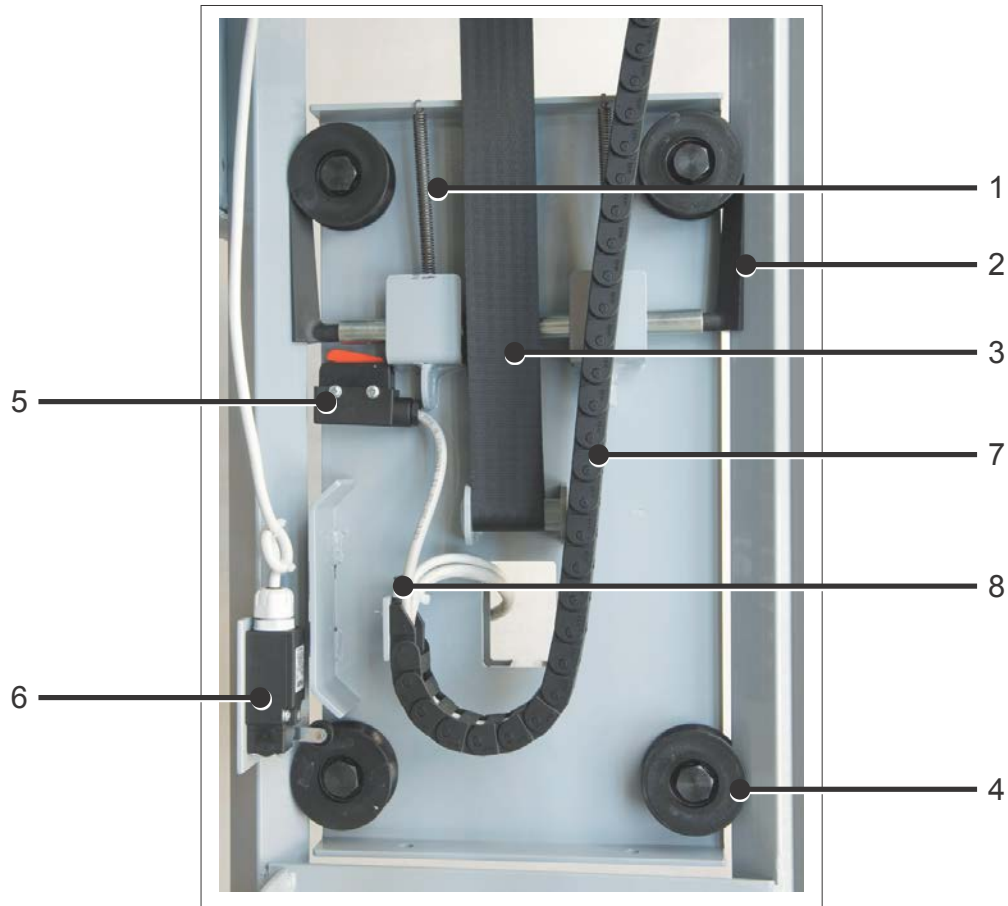


Ref.	Description	Code
01	Base wheel with ball-bearing	Q0000031
02	Belt tightening pulley wheel	Y0000039
03	Trapezoidal belt SPB4500 - Table Ø 1500	W0000016
03	Trapezoidal belt SPB5000 - Table Ø 1500 long	W0000179
03	Trapezoidal belt SPB5300 - Table Ø 1800 / 1650	W0000180
03	Trapezoidal belt SPB6300 - Table Ø 2200	W0000349
04	Limit switch	W0000030
04/1	Magnetic sensor	W0001425
05	Motor reducer	W0000988
06	Ball bearing	3207A.2RS
07	Taper bushes (for W0000015)	W0000014
08	Motor pulley	W0000015
09	Main pulley	Y0000035

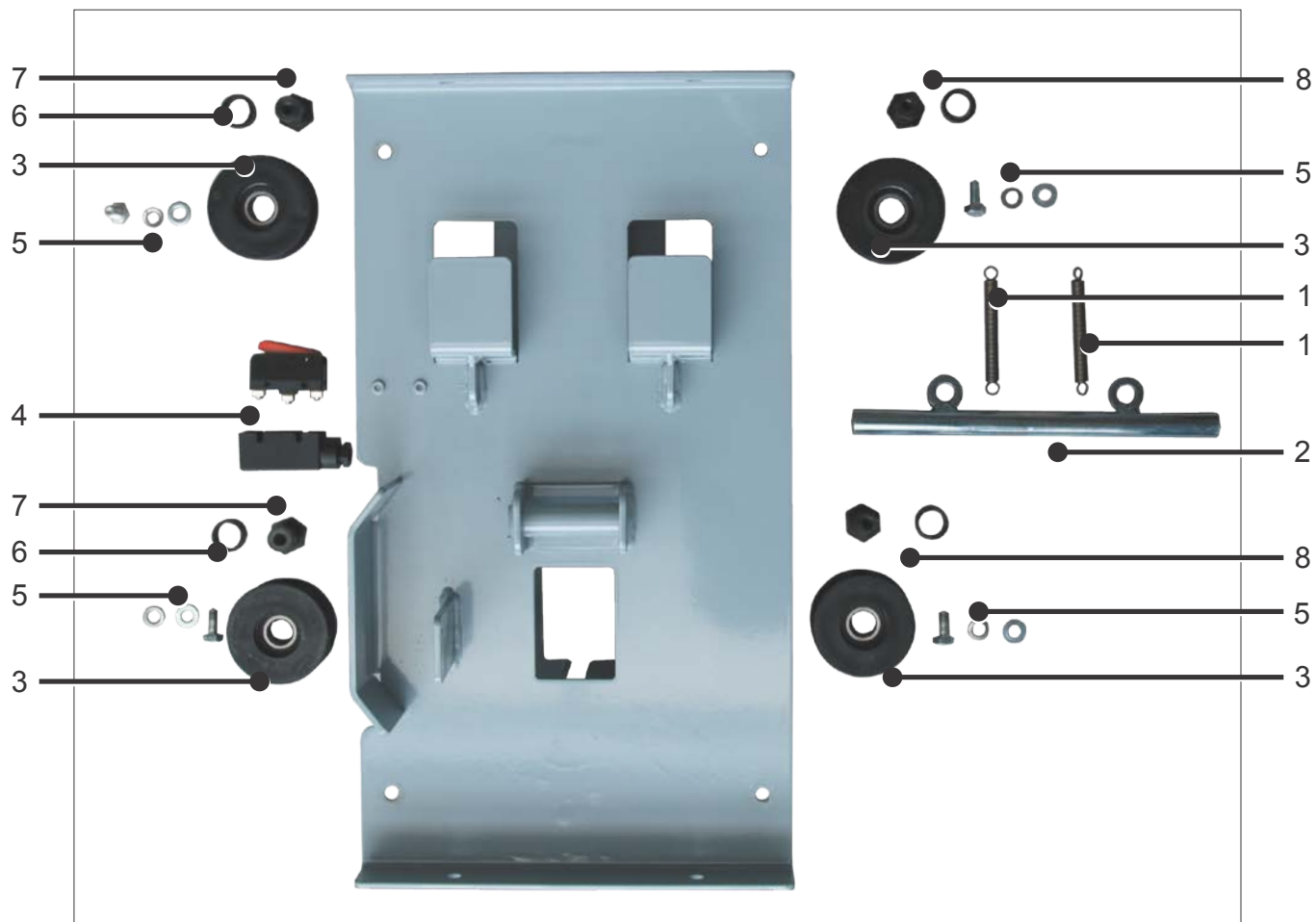
Semi-automatic wrapping machine with turntable mod. "Spinny" * S 140 Plus S 140 Advanced



Film holder coil carriage group (S 140)



Ref.	Description	Code
01	Safety spring	Y0000052
02	Safety device	Y0000046
03	Belt 60 x 1,2 L = 2400	Y0000077
03	Belt 60 x 1,2 L = 3000	Y0000078
04	Wheel	Y0000047
05	Limit switch with red button	W0000231
06	Lever limit switch	W0000029
07	Cable chain	W0000012
08	Cable chain fitting	W0000013



Ref.	Description	Code
01	Safety spring	Y0000052
02	Safety device	Y0000046
03	Wheel	Y0000047
04	Limit switch with red button	W0000231
05	Screw	5588.08x16
	Washer	1751.08
06	Spacer	Y0000048
07	Pivot	Y0000049
08	Eccentric pivot	Y0000050

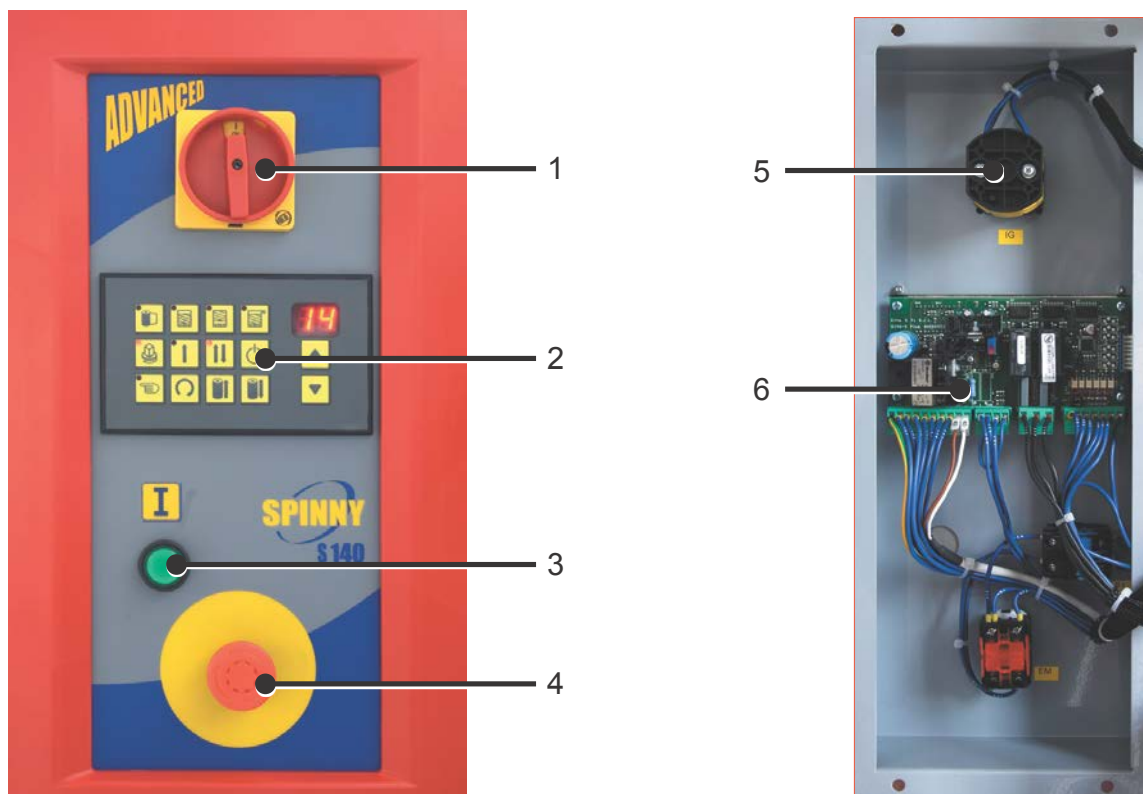
Column group (S 140)



Ref.	Description	Code
01	Motor	W0000208
01	Motor reducer	W0000209
02	Control panel cover	Y0000081
03	Central cover	Y0000045
04	Limit switch	W0000029
05	Cover spring	Y0000069
06	Side cover	Y0000044
07	Pulley	Y0000043

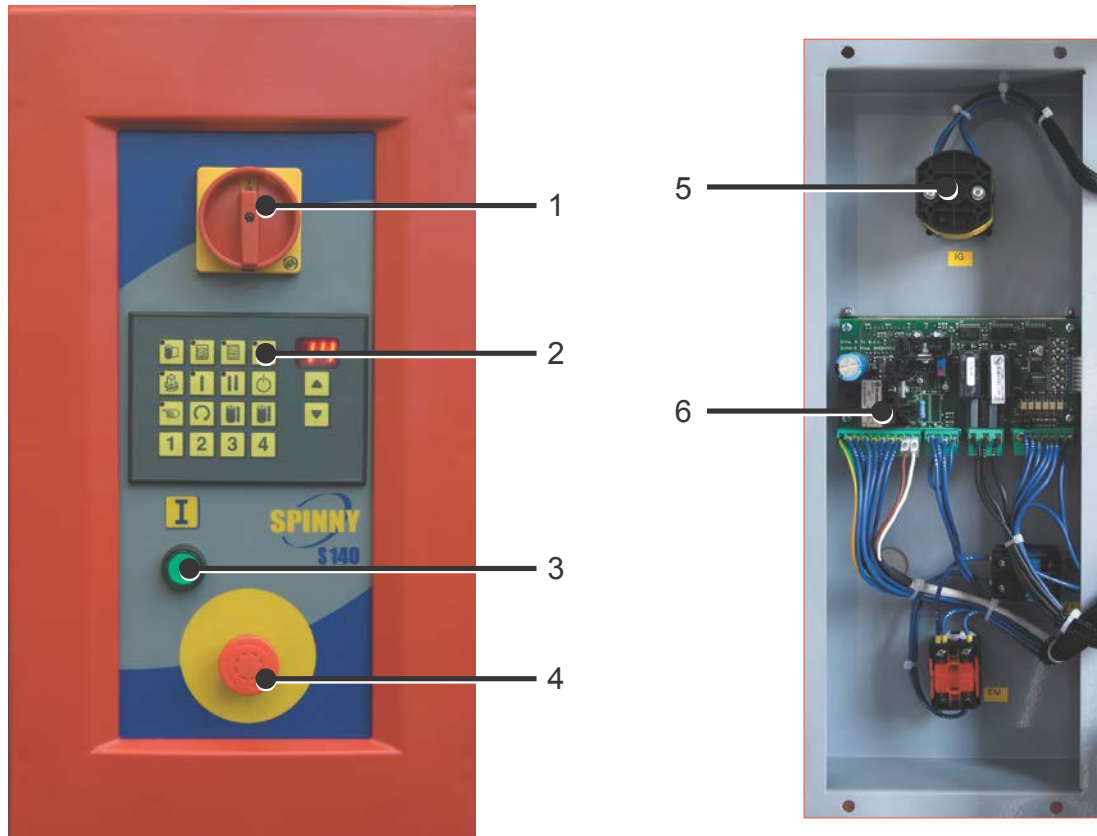


Spinny S 140

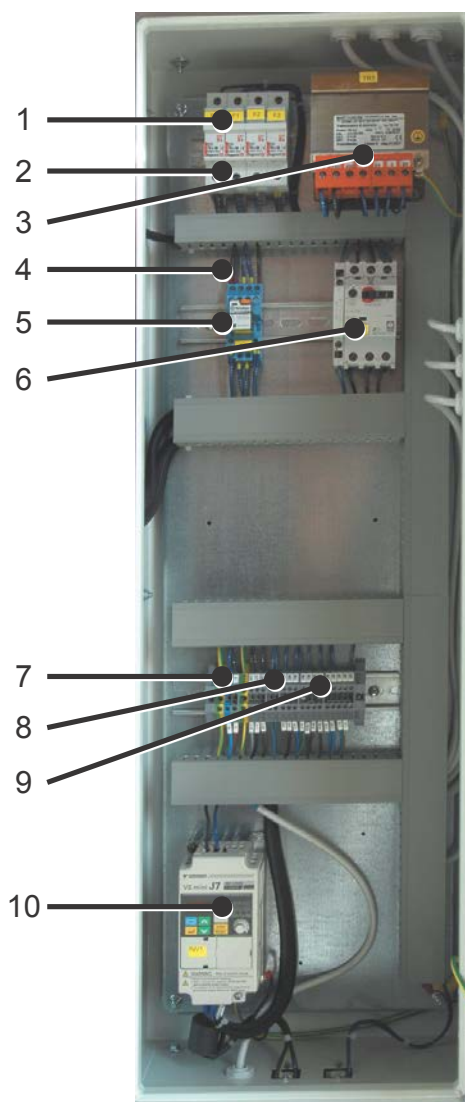


Ref.	Description	Code
01	Main switch	W0000838
02	Control panel	W0000554
03	Light emitting switch	W0000098
04	Emergency switch	W0000099
05	Main switch	W0000837
06	Electronic board	W0000553
06	Electronic board with film overlap adjustment	W0000553/2

Spinny S 140 - 4 Programs



Ref.	Description	Code
01	Main switch	W0000838
02	Control panel	W0000554/1
03	Light emitting switch	W0000098
04	Emergency switch	W0000099
05	Main switch	W0000837
06	Electronic board	W0000553/1

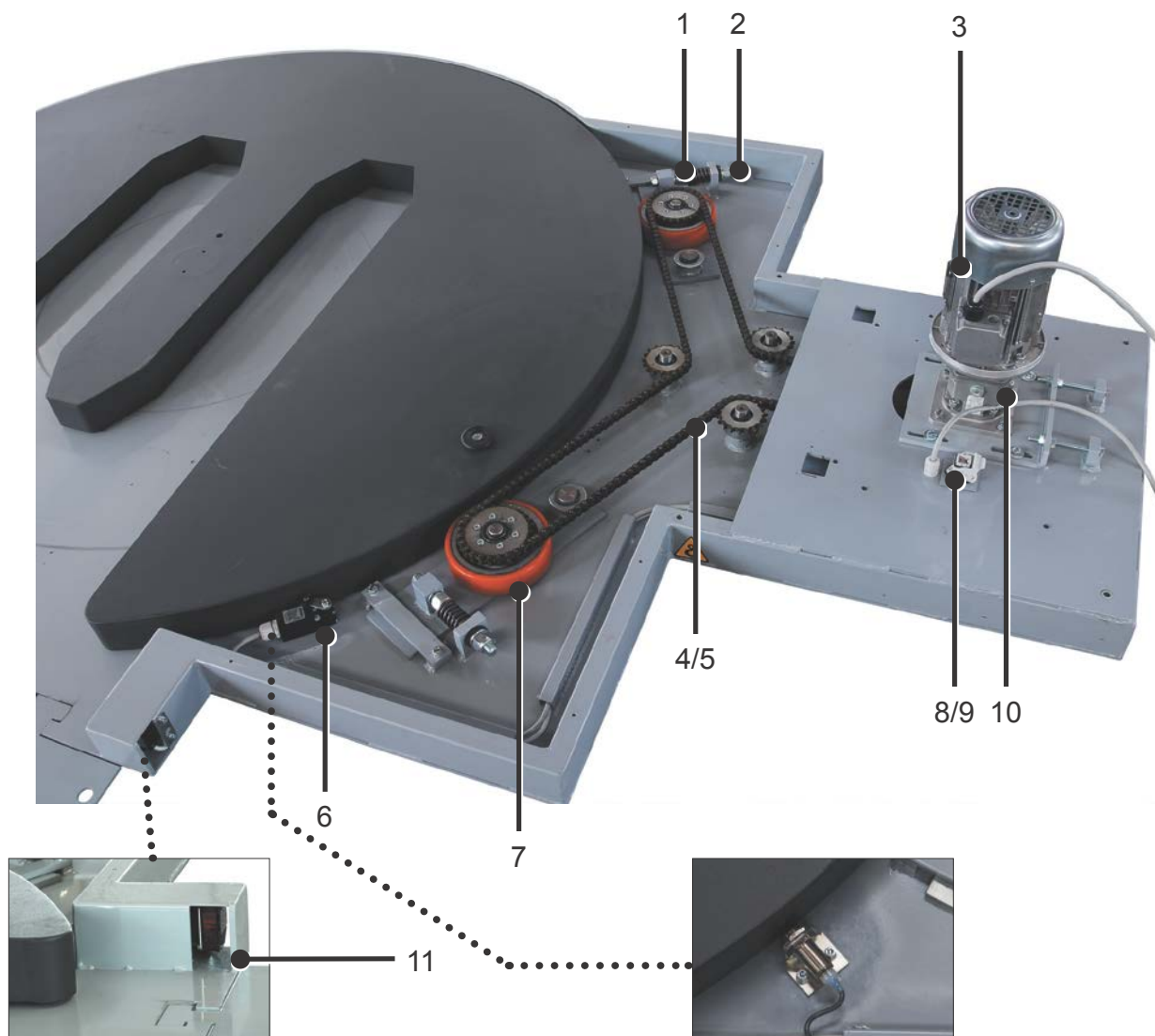


Ref.	Description	Code
01	Fuse holder	W0000079
02	Fuses	W0000101
03	Power transformer	W0000111
04	Relay holder	W0001742
05	Relay	W0001744
06	Thermical relay	W0001113
07	Ground clamp	W0000104
08	Clamp	W0001723
09	Clamp	W0001722
10	Inverter	W0001962

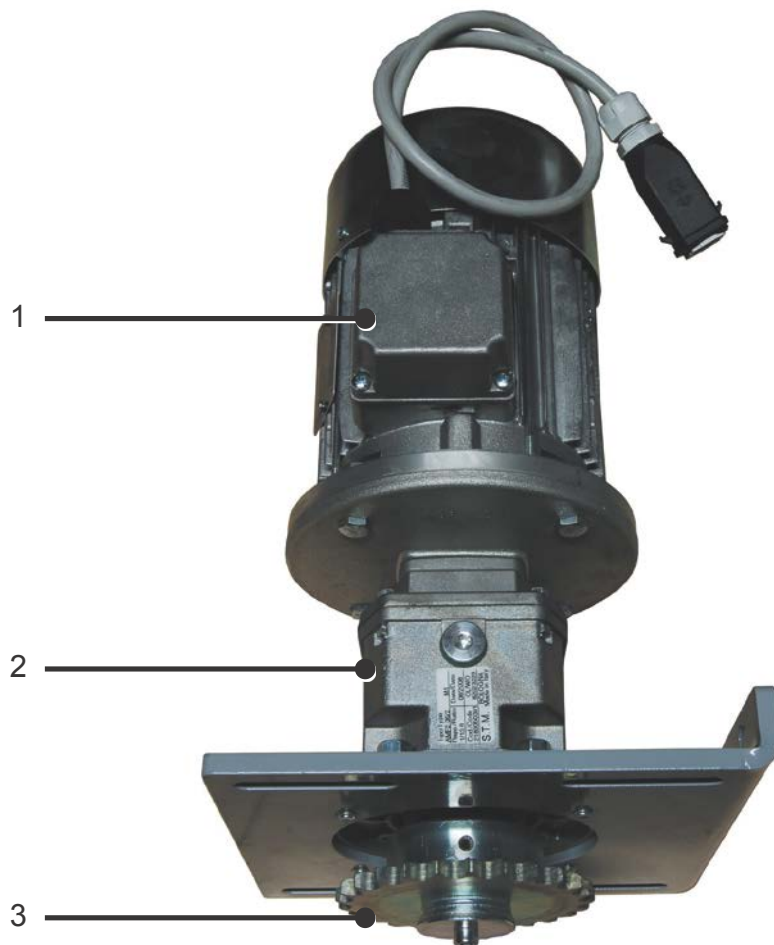


Spare parts section Spinny version TP

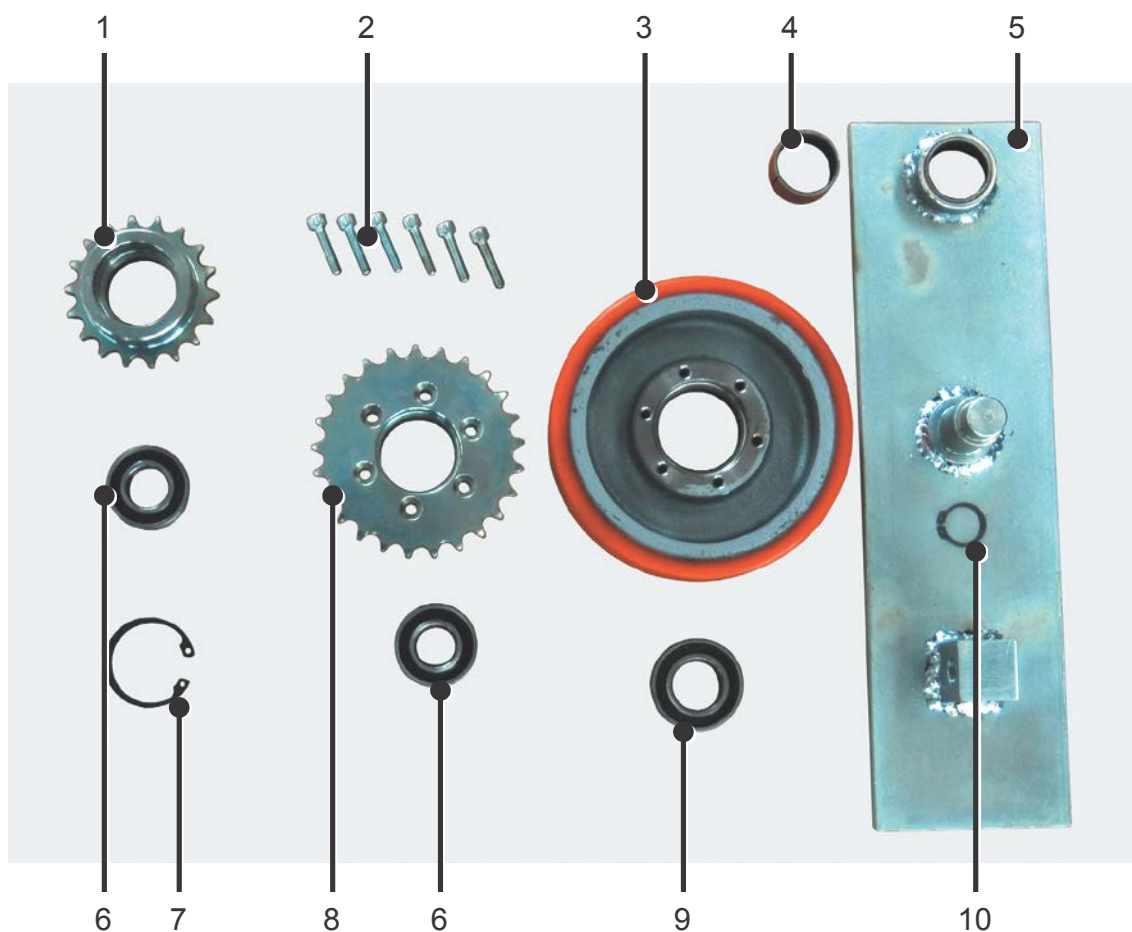




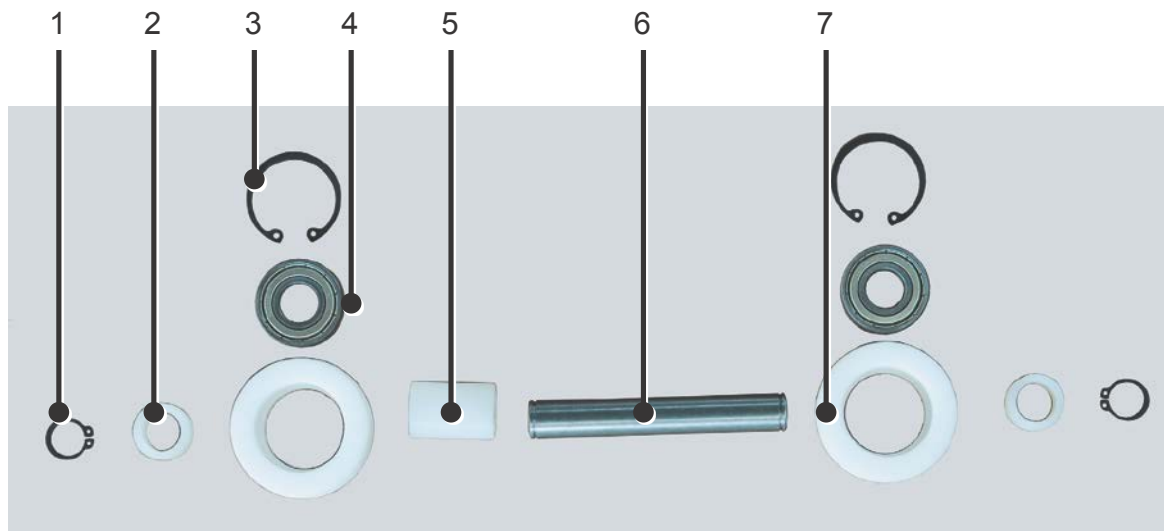
Ref.	Description	Code
01	Spring	W0000142
02	Threaded bar	Y0000158
03	Tri-phase motor 0,37Kw	W0000241
04	Chain	W0001321
05	Chain junction	W0000239
06	Limit switch	W0000029
	Magnetic sensor	W0001419
07	Wheel	Q0000021
08	Cover	W0000020
09	Plug	W0000019
10	Gear box R=13,6	W0001099
11	Photocell	W0000210



Ref.	Description	Code
01	Tri-phase motor 0,37Kw	W0000241
02	Gear box R=13,6	W0001099
03	Pinion	W0000725



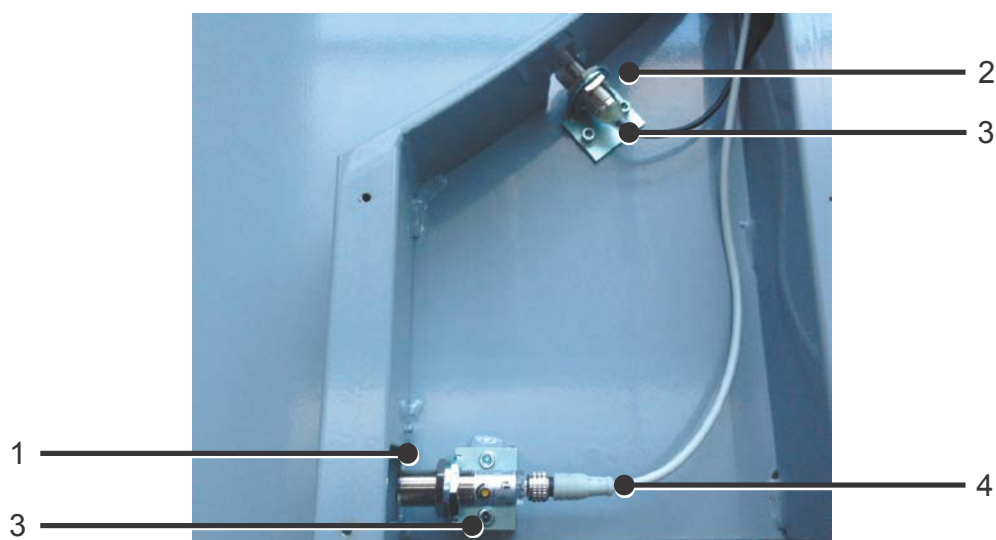
Ref.	Description	Code
01	Pinion	Y0000159
02	Screws	5931.06 x 30
03	Wheel	Y0000348
04	Bushing	W0000262
05	Support	Y0000350
06	Ball bearing	6004.2RS
07	Seeger Ø 42	7437.42
08	Pinion for wheel	Y0000349
09	Ball bearing	6005.2RS
10	Seeger Ø 20	7435.20



Ref.	Description	Code
01	Seeger Ø 15	7435.15
02	Short spacer	Y0000154
03	Seeger Ø 35	7437.35
04	Ball bearing	6202.ZZ
05	Long spacer	Y0000155
06	Shaft	Y0000156
07	Turntable wheel	Y0000038



Spinny S 140 - Version TP Front



Ref.	Description	Code
01	Photocell	W0002008
02	Magnetic sensor	W0002533
03	Support	Y0002655
04	Cable with connector	W0001326



TECHNICAL ASSISTANCE REQUEST

The customer must send the present request via fax to EFFE3Ti.

EFFE3Ti will contact the customer by telephone and will return a copy of the present form confirming the date of the technical assistance operation

Semi-automatic wrapping machine with turntable Spinny

Registration No.: _____ Year _____

Transmitted by _____ Tel _____

_____ Fax _____

Reason for requesting technical assistance

Attention: do not write in space below (reserved to the manufacturer)

Intervention code

Date

Modality

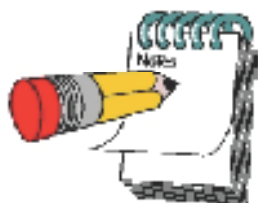
Warranty

☐ YES

☐ NO



Maintenance Register



Warning !

The maintenance technician must note all the repairs and maintenance work done on the machine in the register included in this manual



MAINTENANCE WORK

Date

Description of technical operation

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.....

Maintenance person Signature

Date

Description of technical operation

.....

.....

.....

.....

Maintenance person Signature

Date

Description of technical operation

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.....

Maintenance person Signature



MAINTENANCE WORK

Date

Description of technical operation

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Maintenance person Signature

Date

Description of technical operation

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Maintenance person Signature

Date

Description of technical operation

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Maintenance person Signature



MAINTENANCE WORK

Date

Description of technical operation

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Maintenance person	Signature
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Date

Description of technical operation

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Maintenance person	Signature
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Date

Description of technical operation

.....

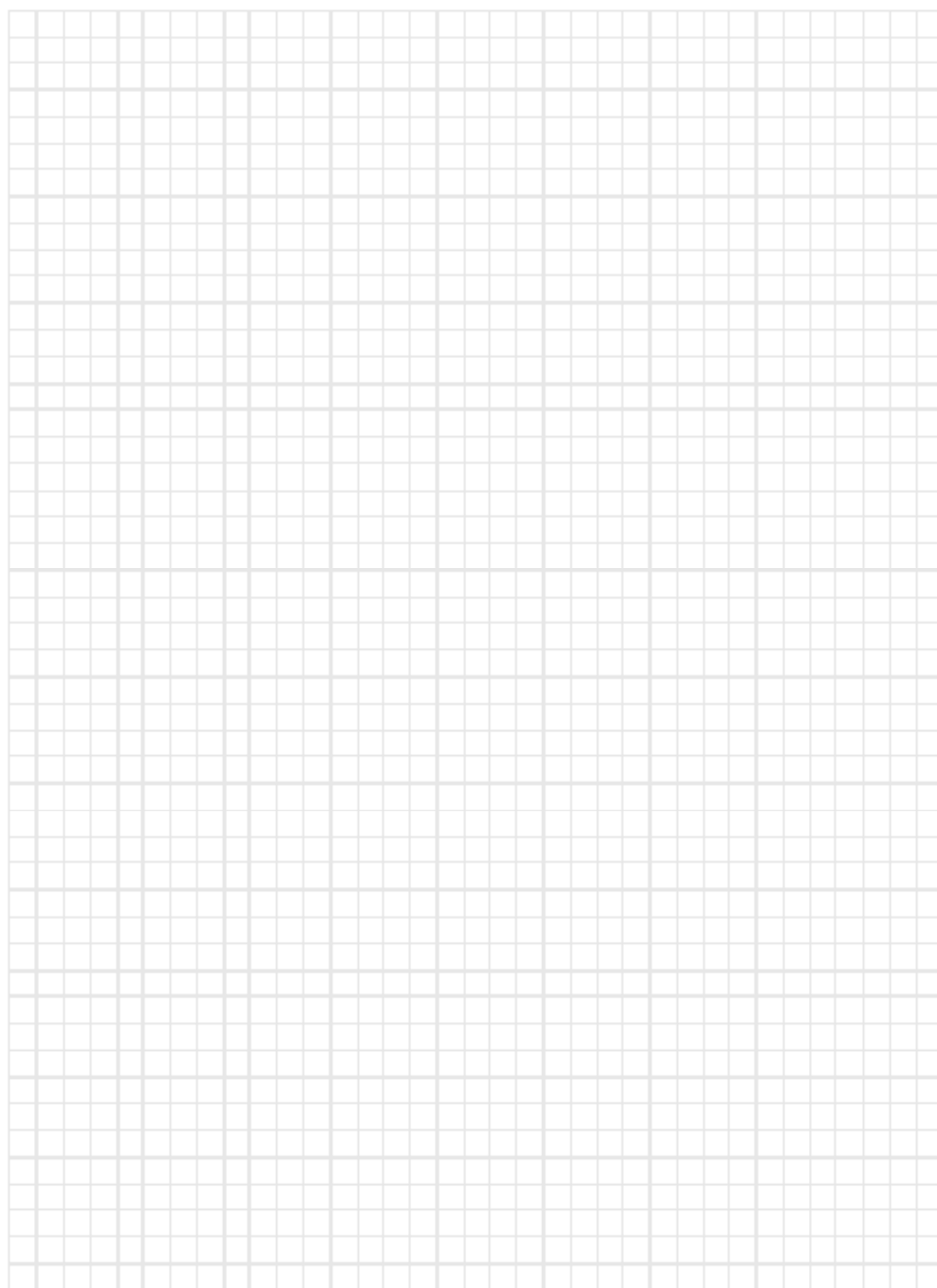
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Maintenance person	Signature
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Note



Note

