

NOTES FOR LOOKING UP IN THE INSTRUCTION MANUAL

On purchasing the machine, this instruction manual is supplied in a single copy. If customer needs several copies, he has to ask the Manufacturer for, by specifying the model and the serial number of the machine (the details are shown in the nameplate).

The use of the machine necessarily forecasts that the User is a good experienced person on similar machines. Otherwise the User has to attend a training concerning the machine at the Manufacturer's or at a Re-seller's or anyway given by the Manufacturer's qualified staff.

This instruction manual must be considered as an integral part of the machine and so it must be always at user's disposal for the looking up and it must be kept in a sheltered place and out from the sun rays.

Under the term CAUTION, the eventualities that can compromise the operator's safety and the integrity of the machine are listed. They are complete with graphic symbols and notes in italics and sometimes in bold-faced type.

Caution







Every request and order for accessories and/or spare parts for the machine must be sent to the manufacturer I.L.P.R.A. S.p.A.

The manufacturer I.L.P.R.A. S.p.A. reserves the right to modify dimensions, forms, features of the machine and the instruction manual in any moment and without any notice.

SAFETY WARNINGS FOR THE MACHINE

	The reading of the instruction manual is advisory before carrying out any operation on the machine; the machine start up by an unskilled worker operator could give rise to personnel injury or a damage the machine.
	Every part of the machine has been tested during the production process.
	Every maintenance operation, adjustment and replacement described in this instruction manual, must be carried out only after disconnecting main power supply.
	The operator must wear approved safety clothing and anti-slip shoes.
	The protections are designed to protect the operator's safety during his work. Protections must not be removed during the running of the machine.
	The machine, which is fitted with an electric motor, is not to be operated in a explosive environment i.e. where natural gas or petrochemical, are present.
	People unrelated to the lifting and transport operations mustn't pass or stay in area where the machine is moved, while the authorised persons must remain at a suitable distance to avoid being hit by hanging elements.
	The electrical connection and grounding must be carried out by skilled and qualified staff, in compliance with the regulations in force.
	Do not use the machine if you are under the influence of alcohol, drug or medicines causing drowsiness.

	<p>We recommend that you protect the main power feed by safety switches.</p>
	<p>The presence of magnetic or electromagnetic fields at a very low distance could compromise the good functioning of the control panel. Ideal conditions of temperature and humidity for a correct use of the machine are the environmental ones.</p>
	<p>Check the electric circuit is conveniently protected and corresponds to the motor features: the machine is endowed with a nameplate showing power, frequency and feeding tension values. In addition, please check if there is the grounding and a switch regularly placed before the feeding cable. The Manufacturer does not accept responsibility for damages to personnel or machines caused by improper earthing.</p>
	<p>Before carrying out any adjustments, maintenance operation or replacement in the working area, the operator must wait for a determined period of time from the stop of the machine. This period is necessary to allow the cooling of the areas which are heated during the machine normal functioning.</p>

This manual will help you to understand and use your machine.

Please read it carefully before using the machine.

The instruction manual is released by I.L.P.R.A. S.p.A. and is always supplied with the machine. The User is responsible of the present manual for all the machine life and will destroy it only on the demolition of the machine itself.

I.L.P.R.A. S.p.A. does not answer for any modification to the manual or to the machine by the User after the delivery, which are not foreseen in the present manual. This would involve the loss of guarantee.

The Manufacturer reserves intellectual property rights of the present manual and prohibits partial or integral diffusion, in any form (printing, photocopies, microfilm or any other way) and the elaboration, reproduction and diffusion by electronic systems as well without approval.

NORMATIVE REFERENCES

In the manual you find the further references in the following documents:

- Directive 2006/42
- Directive 2006/95
- Directive 2004/108
- CEI EN 60204-1:2006

DOCUMENT PURPOSE

Purpose of the manual is to supply the User with warnings and information to follow for a correct use of the machine and for the Operator's protection and safety. For this reason the User is asked to:

- Make the manual available and known to all operators
- Give the manual to the next owners of the group.

WARNING AND IDENTIFICATION NAMEPLATES

On the identification nameplate of the machine there are the Manufacturer's details, the machine model, serial number and construction year.

For any communication relevant to the machine (problems, interventions under warranty, spare parts etc....) you have always to make reference to the details on the plate.


Also the CE mark appears on the nameplate, which grants the machine compliance with EC regulations.

Do not remove and observe all the warning nameplates on the machine.

IDENTIFICATION NAMEPLATE

On the nameplate there are the following details:

- CE identification
- Manufacturer's name and address
- Type
- Model
- Serial number
- Construction year
- Electrical data of the machine



The image shows a rectangular identification nameplate for ILPRA. At the top left is the ILPRA logo, which consists of a stylized 'I' made of two triangles (one orange, one white) followed by the word 'ILPRA' in bold. Below the logo is the word 'termosaldatrici' in a smaller font. Underneath that is the company address: 'C.so Pavia, 30 - Vigevano (PV) Italy', followed by telephone and fax numbers: 'Tel. (+39) 0384 296251 - Fax (+39) 0384 293231', and the website: 'http: www.ilpra.com'. The nameplate contains several input fields for machine details: 'Serie macchina / Serial machine', 'Modello / Model', 'Matricola / Serial number', 'Anno / Year', and 'Volt / Volt'. To the right of these fields is a large 'CE' mark. At the bottom right, it says 'Made in Italy'. There are four small circular holes at the corners of the plate, suggesting it was once attached to a machine.

USE AND PRESERVATION OF THE MANUAL

The present manual is addressed to the User of the machine, who is responsible for moving, installation, use, control and final demolition.

The manual shows the machine use foreseen by the project hypothesis and technical features; it supplies instruction for moving, for a suitable and correct installation, mounting, adjustment and use. It supplies information to address maintenance interventions, it makes order of spare parts easy and supplies indications regarding eventual residual risks, in particular, it must be available to be looked at for the following information:

- Conditions of use for the machine
- Operator's working area
- Instruction relevant to:
 - Start up
 - Use
 - Transport
 - Installation
 - Mounting and dismounting
 - Adjustment interventions
 - Maintenance and repair
 - Instructions for training

RESPECT OF THE LAWS

You have to respect, together with the rules inside this manual, the specific provisions of the laws regarding the prevention of accidents at work.

MANUAL PRESERVATION

The manual is considered part of the machine and must be kept in good conditions until the final demolition of the machine.

The manual must be preserved in a protected place and always available for its consultation, next to the machine.

INFORMATION FOR THE USER

1 – The Manufacturer reserves the right to improve the manuals, without the obligation to update the previous versions.

2 – The features of the materials can be modified at any point, depending on the technical development, without notice.

3 – If the machine is supplied without control and protection to electrical parts (electrical board on the machine), the Manufacturer doesn't assume any responsibility regarding safety problems deriving from electrical parts not in compliance with what is recommended and/or prescribed. In any case, with respect to the electric Laws and Regulations for the equipment supplied with the machine will be at Customer's charge, that will have to make them properly and suitable for their usage.

3 – The Manufacturer considers himself released from any eventual responsibility in the following cases:

- improper use of the machine;
- use by untrained personnel;
- use not in compliance with the manual instructions;
- use not in compliance with the Regulations in force;
- use with faulty power supply (missing or incorrect)
- use with serious deficiency in proper maintenance
- use with modifications not expressly authorised by the Manufacturer's written note
- use with not original spare parts or not specifically defined for model
- use with total or partial inobservance of the instructions in the manual

4 - General selling warranty expires in case of:

- Improper or incorrect use
- Tampering
- Bad maintenance
- Inexperience in usage
- Machine overwork
- Excessive mechanical and/or electric and pneumatic stress
- Use as per the conditions described in point 4.

Requests for further copies of this document must be accompanied by purchase order addressed to I.L.P.R.A. S.p.A.

FORESEEN AND UNFORESEEN USE

Any use that is different from the one that machine has been designed for represents an anomalous condition that can damage the machine and be dangerous for the operator.

Hazards and dangers concerning foreseen and unforeseen use

- It is strictly forbidden to keep metal objects near the working surface because they could accidentally fall into the transferring chain and enter the packaging area causing dangerous situations.
- The working order is tested repeatedly before shipment
- All the elements that are not mentioned in the manual as far as the adjusting or replacement are concerned, can be modified only by the skilled manufacturer's employees
- For any unforeseen use of the machine or anyway any modification on it, the User must inquire through the Manufacturer about the possible hazards or dangers coming out from an improper use of the machine itself.

INSTALLATION

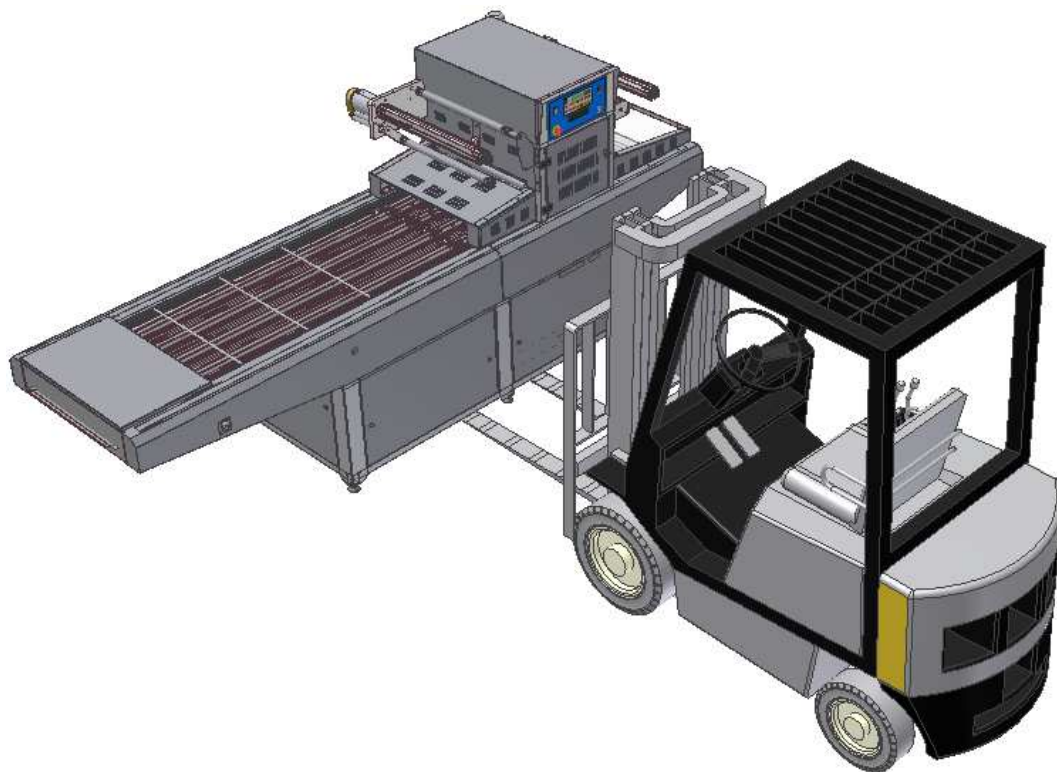
MACHINE TRANSPORT




All the area involved in the machine moving must be inspected in order to find possible dangerous parts.

The machine is delivered to the User completely assembled. To lift the machine you'll have to consider the overall dimensions of the machine.

Before the shipment, the Manufacturer wraps the machine by resistant material that protect all the parts from the possible damaging external agents.

To move the packed machine use a forklift truck, by placing the forks under the machine basement.

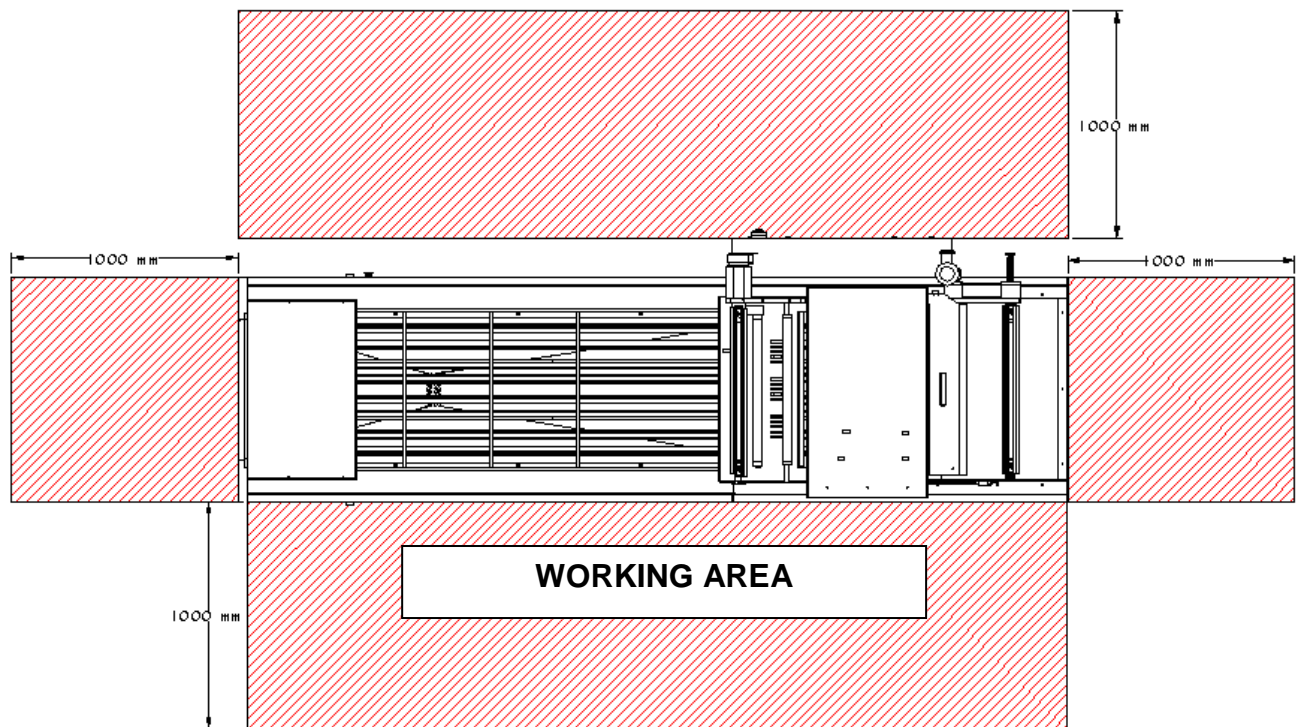




<p>Warning</p> 	<p>People that are unauthorised to the operations won't have to pass or stay near the moving area of the machine while authorised people will have to stay at a proper distance to avoid to be struck by the hanging element.</p>
	<p>During the moving in addition to the truck driver it is needed another person that check the way is free from any obstacle.</p>
	<p>Use forklift trucks having a lifting power is superior to its weight + the weight of the machine.</p>

FREE SPACES TO BE RESPECTED

To have the space necessary to carry out the maintenance and adjustment operations the machine requires the following free spaces:

- on the front and back side it is necessary to have 1000 + 5000 mm from the first obstacle
- on the left side, in case the machine is not connected to an automatic tray denester, it is necessary to have 1000 + 1500 mm from the first obstacle.
- On the right side, in case the machine is not connected to a automatic tray denester, it is necessary to have 1000 + 1500 mm from the first obstacle.



Warning	<p>The free spaces must be calculated (on the back and front side) from the protection opened.</p>
	
	<p>It is advisable to mark on the floor, by means of paint or adhesive tape, the distance that must be kept from the machine parts in such a way that: the area is kept free from any other equipment or object. Nobody but the authorised person stays in the area to be respected when the machine is running.</p>

PREVENTIVE CHECKING AND VERIFICATIONS

On receiving the machine it is advisable to carry out a quick checking of all its parts. Please find hereby a list of parts that should be checked:

1. Verify if all the machine components have been delivered.
2. Verify the presence of the options requested
3. Verify the presence of all the mechanic protections and safety devices.

CHECKING OF THE DAMAGES THE MACHINE MAY HAVE HAD DURING THE TRANSPORT

It is advisable to check the protruding parts of the machine and the most delicate parts too. Please find hereby a list:

- Control panel.
- Mechanic protections and safety devices.
- Back electric box.
- Feet.

Carefully check if the wrapping protection has been torn or damaged. If the packing of the machine is damaged, act as follows:

- **Immediately recognisable damages or lacking of parts:** they must be declared immediately after the delivery to the forwarder and confirmed in writing on the bill of lading.
- **Not immediately recognisable damages:** they must be declared to the forwarder within the terms allowed by laws.
- **Serious damages:** an assessment by an assessor appointed by the forwarder or the insurance company is needed.

Warning



The claims relevant to possible missing material must be sent within 10 days from the date of receipt of the goods.

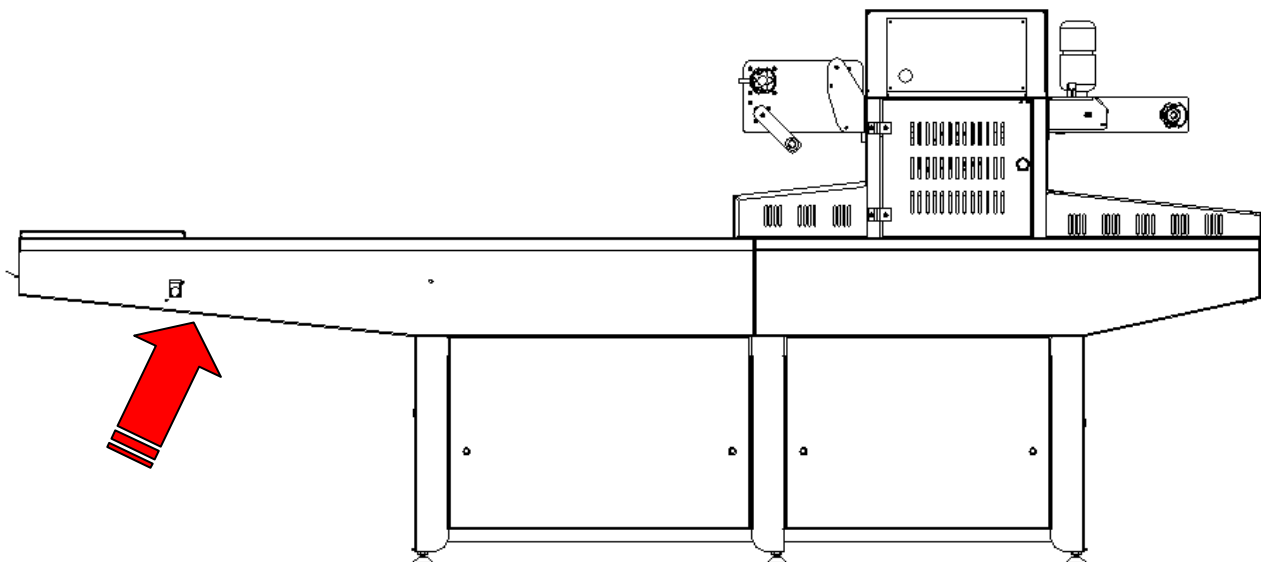
ADJUSTMENT OF THE MACHINE ON THE FLOOR

The machine is equipped with 4 feet that have the function to disperse the vibrations (caused by the working cycle) to the ground and avoid the absorption of possible vibrations coming from other equipment working in the same place. The feet allow to regulate the machine on the floor according to the possible unevenness of the floor itself. To check the flatness on the floor act as follows:

1. Use a level and place it on the plates.
2. Check the longitudinal levelling of the machine.
3. If it is not correct act on the feet till the machine is correctly placed.
4. Place the level on the left rim of the working surface.
5. Check the transversal levelling of the machine.
6. If it is not correct act on the feet till the machine is correctly placed.

RESIDUAL PRODUCTS DRAIN FROM THE WORKING SURFACE

The working surface has been arranged to convey the residual products produced during the working cycle (water or product exceeding from the trays) to a container.



ELECTRICAL CONNECTION

Warning



All the external energy sources machine connection assistances must be done by qualified staff, respecting the regulations in force and under the supervision of the Builder House technicians.

The electric energy, for the functioning of the all electric elements that are at machine rim, will be provided to the electric box through a cable connected to the general electric system of the plant.

The machine is delivered with an electric cable without plug, that will have to be equipped with a plug suitable for the electric system at the plant .
The electric cable is directly connected to the main switch and pass through a hole in the electric box.

It is needed to see the attachment of the electrical drawing to get the electrical connection.

Warning



The electric supply and grounding system connection must be performed by skilled staff in compliance with the regulations in force.



Carry out the electric connection by using cables with plug. Do not connect the electric wires directly to the external terminals.



Please verify:

- that the voltage on the machine identification plate is the same as the plant electric system voltage
- that all the motor connectors are correctly fixed
- that all the control panel cables are correctly connected

PNEUMATIC CONNECTION

On the machine a lubricated reducing filter system is assembled (1), placed in the lateral right area of the base, for the control of air pressure that feeds the pneumatic components that are on the very machine.

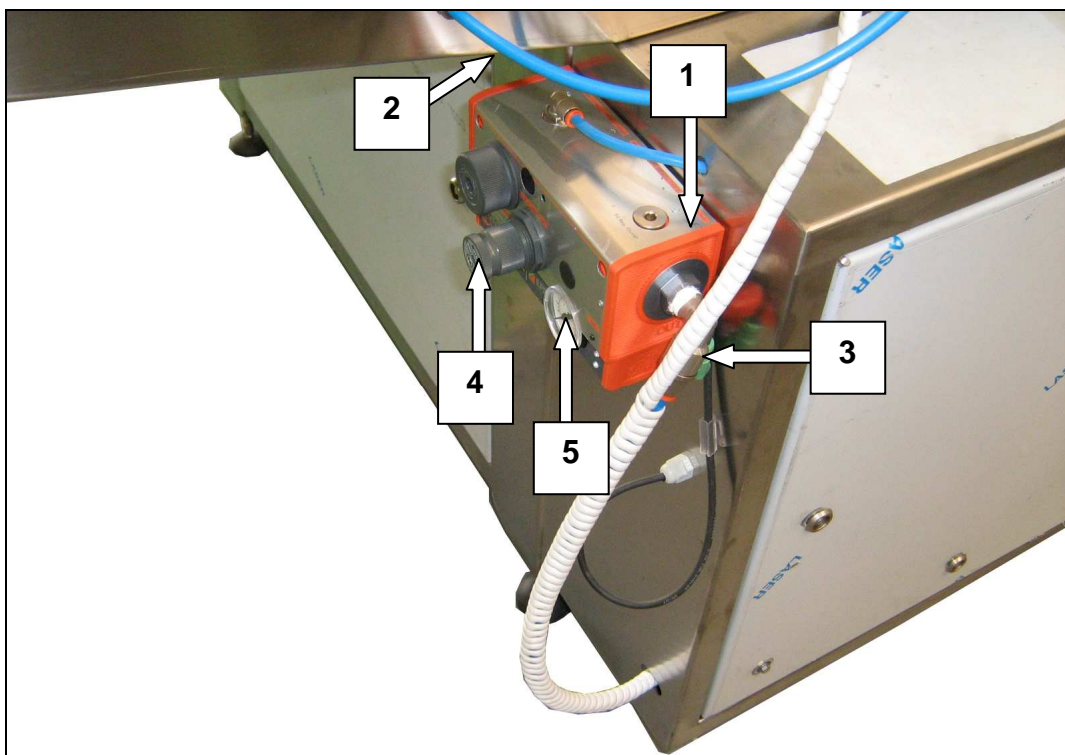
A pneumatic flexible tube (2) of proper section, will be connected from the pneumatic system of the plant to the rapid clutch of group connection (3).

Through the pressure regulator (4) the worker will regulate the pneumatic pressure of work at 6 bar: the value can be read on the manometer (5) that supplies the device.

Note



The pneumatic circuit diagram is enclosed with the documentation provided with the machine.



Warning



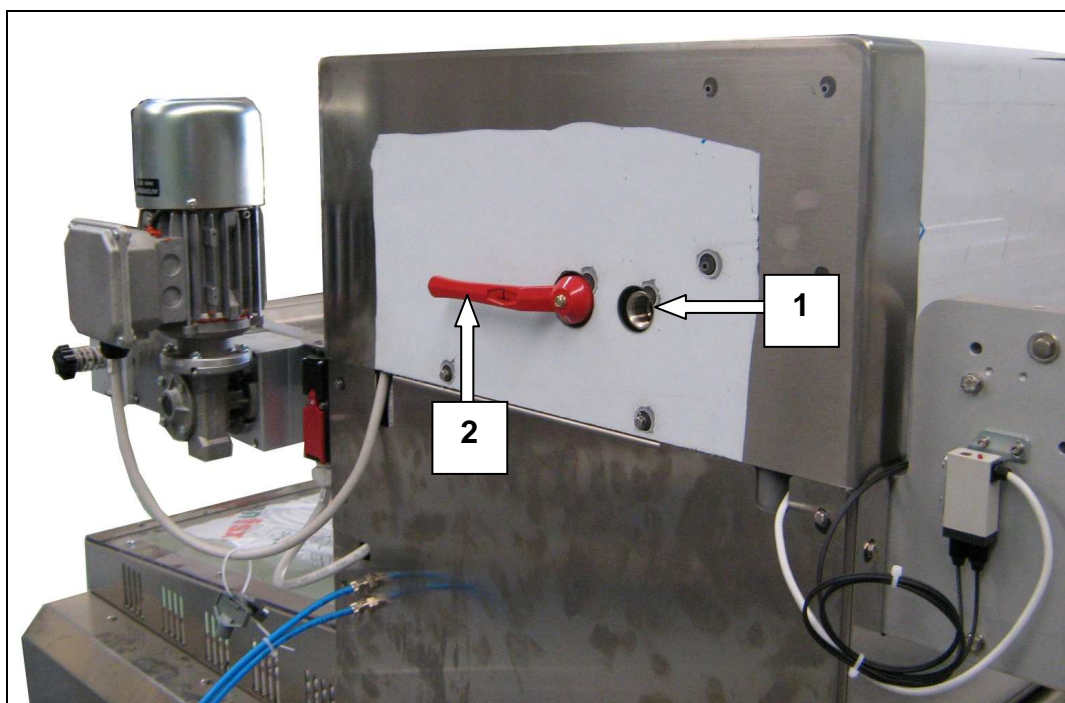
The entry pressure to the FRL group must be maximum of 8 bar.

GAS RESERVOIR CONNECTION

When you need to work in modified atmosphere, that involves the injection inside the package of a particular gas, it is necessary to connect a gas reservoir to the machine. At this aim, in the back side the machine is equipped with:

- A connection where the pipe coming from the gas reservoir is connected (1).
- An opening/closing lever of the valve that lets the gas go into the vacuum circuit (2).

To use the feed gas during the packaging cycles it is necessary to place the tap in a horizontal position, as indicated in the picture below.



Note



The pressure of feed gas use will be of 0,8/1 bar.

Caution



All the energy external sources maintenance connection of the machine must be done by qualified staff, according to the regulations in force and under the supervision of the Builder House's technicians.



For the connection it is necessary to use pneumatic cables that are proper for equal or higher pressures as ones required.

MACHINE PROTECTIONS

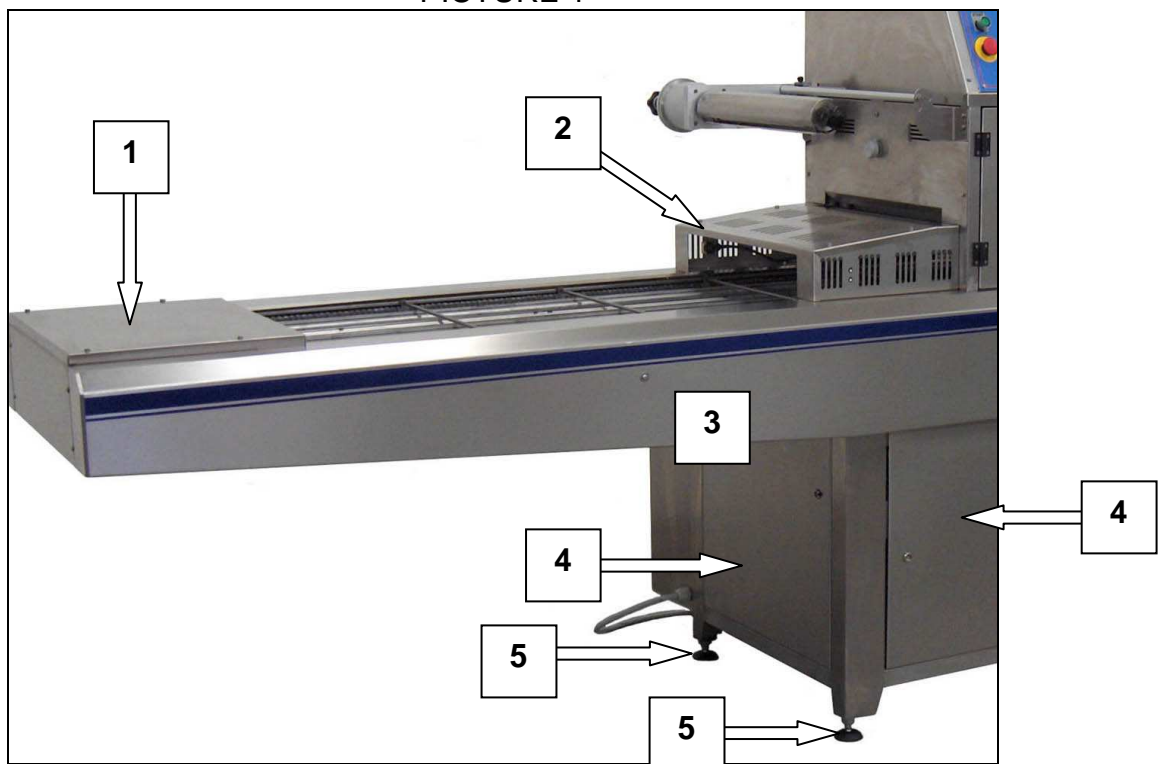
The Builder has provided some protections in order to avoid contacts, even accidental, of the worker with work elements that can cause danger:

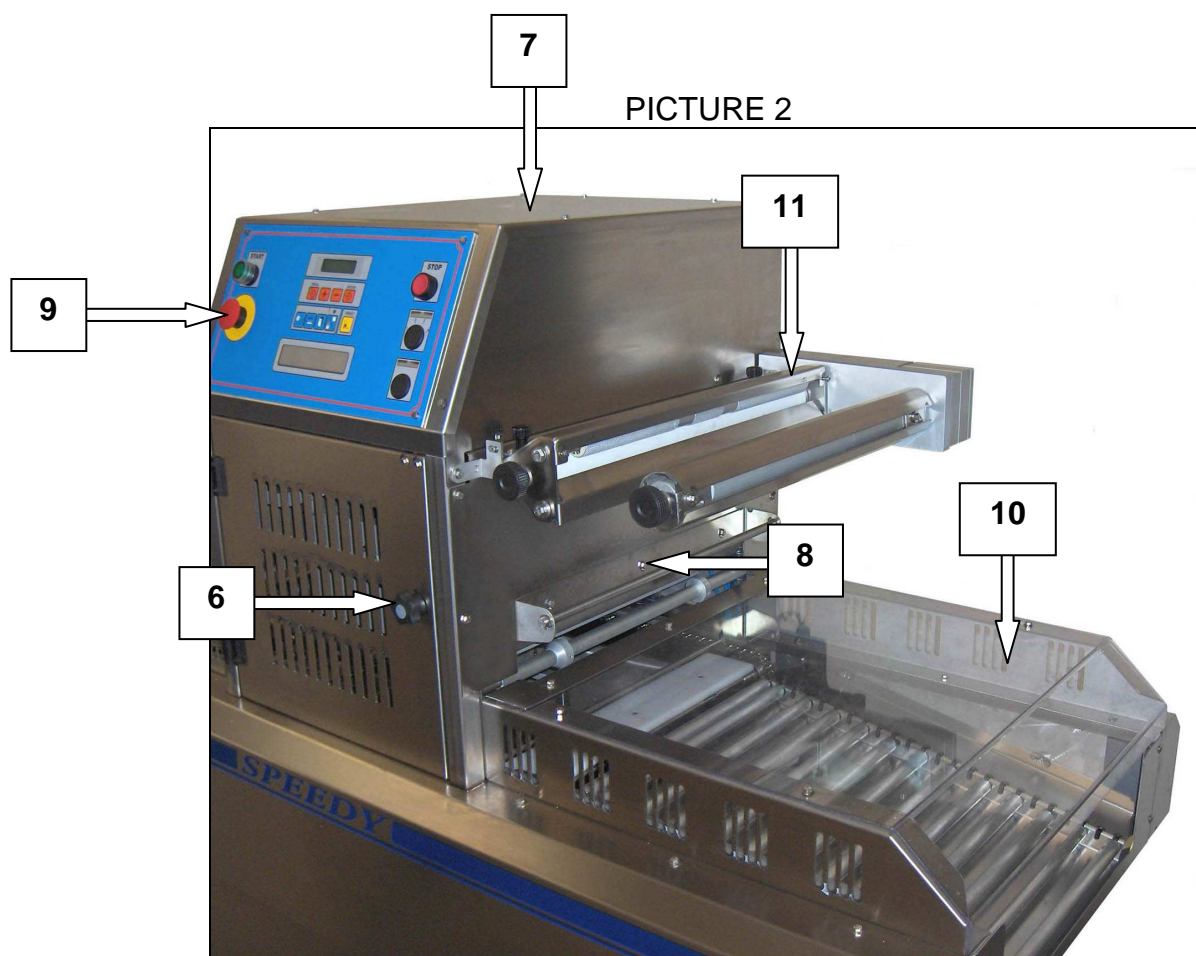
1. The entry area of the charge car is closed by a sheet carter through some fixing screws, whose removal occurs through the use of proper tools.
2. The entry area of the packaging system is closed by a sheet carter through some fixing screws, whose removal occurs through the use of proper tools.
3. On the carter's left side that is at the beginning of the packaging system, there is a photo-electric cell that, in case it is used during the rise of the lower chamber, stops the working cycle of the machine.
4. The lower part of the machine where there are transmission gears of chains, the pneumatic elements and, in case the vacuum pump is closed both in the front and laterally, through doors provided with lockset. The opening key of the protection doors has to be preserved by the machine Person in charge; to leave the key in the lock, could provoke the risk that a non-authorized person could come into contact with danger mobile elements of the machine.
5. The machine is equipped with four stabilizer feet provided with anti-shute plate that guarantee a good stability during the working cycle.
6. The frontal area of the packaging system is closed by a sheet door provided with security micro-switch. In case, during the working cycle, the door is opened, the micro-switch stops the machine working bringing it to *emergency stop*.
7. The whole packaging system is closed by a unique sheet carter placed on the machine structure through fixing, whose removal occurs with proper tools. On the very carter a control panel is fixed.
8. The film entry and exit areas from the packaging system are both delimited by security protection that are in their internal part.
9. On the command pulpit and in the posterior area of the charge system there is a emergency button that permits the worker to interrupt immediately the productive cycle and to bring the machine to conditions of *emergency stop*. For this reason, this button will be used only in case it finds an anomalous dangerous situation for the

worker and/or for the machine. To restart the working cycle you will operate as described in the relevant paragraph.

10. The discharge tunnel of the trays is closed by a plexiglass carter that is placed in the machine structure through fixing, whose removal occurs using proper tools.
11. The entry area of the scrap between the tow idle wheel is closed by a sheet carter placed on the system structure through fixing knobs.

PICTURE 1







DESCRIPTION OF MACHINE PROTECTION

BACK AREA: The electric box has all the electric components of the machine, it is placed in the back area and it is closed by a door that permits the access only after positioning the block-door general switch in **OFF POSITION** (electric feed disengaged). It is also necessary to operate on locks through a special section key that only the machine Person in charge has.










INSIDE PART OF THE MACHINE: There is a temperature security probe. If the sealing plate temperature set up by the worker is overdone, the security probe could prevents the working cycle, stopping each machine element.

VACUUM PUMP: On the drive engine of the vacuum pump a thermic protection is installed.

Cautions	
	The protections have been provided by the Builder so as to defend the safety of workers during their tasks. During the functioning, the protections must not be removed for any reason.
	The opening key of protections has to be preserved by the machine responsible. To leave the key in a lock, could provoke the risk that a non-authorized person could come into contact with dangerous moving elements of the machine.

SECURITY SIGNS IN THE MACHINE

In addition to protection devices, **ILPRA S.p.A.** firm has provided to apply on the machine, by the danger points, the following security signs:

SECURITY SIGNS ON THE MACHINE		
SIGNS	SIGNS DESCRIPTION	POSITION ON THE MACHINE
	RISK OF BURN	UPPER CHAMBER
	RISK OF CUT	UPPER CHAMBER
	MOVING CHAINS RISK	TRAYS CHARGE PLANE
	MOVING ELEMENTS RISK	TRAYS CHARGE PLANE
	ELECTRIC RISK	ELECTRIC CONNECTION POINTS OF COMMAND PULPIT
	IT IS REQUIRED TO USE GLOVES WITH PROTECTION SLEEVE	UPPER CHAMBER BASE PROTECTION DOORS
	IT IS REQUIRED TO USE THE ELEVATOR SYSTEM (LIFTING POINTS OF THE MACHINE)	BASE LOWER AREA
	NO REMOVAL OF PROTECTION DEVICES ON THE MACHINE	PROTECTION CARTERS PROTECTION DOORS
	IT IS FORBIDDEN TO LUBRIFY, TO CLEAN AND TO DO REGULATIONS/ RECORDINGS WHEN THE MACHINE IS WORKING.	PROTECTION CARTERS PROTECTION DOORS

Warning



It is ***absolutely forbidden remove or damage*** the security signs on the machine.

RESIDUAL RISKS

Despite the security precautions taken by the worker during the design and the production, during the normal productive cycle the machine presents already some risks that are considered residual.

In this chapter there is a list of regulations that have to be followed in order to avoid dangerous situations for the worker, for the machine and for the environment that are connected to the presence of these residual risks.



MACHINE MOVING

- The moving phases of the machine can present dangerous situations for non-qualified staff for these types of operations: for this reason the moving procedures **MUST BE DONE ONLY BY TRAINED AND QUALIFIED STAFF BY THE BUILDER.**
- The rising of the machine, by trained staff, will be done through elevator/transpellet gear. In the lower part of the machine base there are proper signals that indicate the rising points.
- During the moving of the machine or of its components, pay the greatest attention so that nobody goes to the moving area, in order to avoid any accident to the staff.
- Pay particular attention so that the speed of machine raising is such as to avoid dangerous variations that could cause its overturning.
- To avoid dangerous upsettings and extreme vibrations during the functioning, it is necessary to proceed with the adjustment of the machine, by operating on the stabilizer feet.



DANGER

- It is absolutely **FORBIDDEN TO AVOID SECURITY DEVICES** during the machine functioning.
- The machine, in order to work, needs the control of only one worker; during the functioning nobody, except the worker in charge, will stop by the machine or even operate on it.
- During the substitution, cleaning, maintenance operations **IT IS COMPULSORY TO USE** gloves with protection sleeve so as to avoid any accident risk.

- The opening key of protections, has to be preserved by the machine Responsible. To leave the key in the lock, could provoke the risk that a non-authorized person could come into contact with danger mobile elements of the machine.



BURN

- During the machine functioning, the sealing plate is heated at high temperatures: pay the greatest attention to the entry/exit areas of the packaging system so as to avoid burns risk. Before operating on the machine in order to do maintenance and/or cleaning operations, wait a certain period to permit the cooling of the heated elements.



CUT

- During the maintenance, substitution and cleaning operations of the packaging system, pay the greatest attention to the cutting blade in the upper chamber. The operations will be done by using gloves with protection sleeve in order to avoid any accident risk.



DEFLECTION

- During the machine functioning, pay always the greatest attention to the moving chains of the push bars that are on both sides of the charge plane.



DEFLECTION/DRIVING

- During the trays placement between the charge car trays pay the greatest attention to the push bars moving.



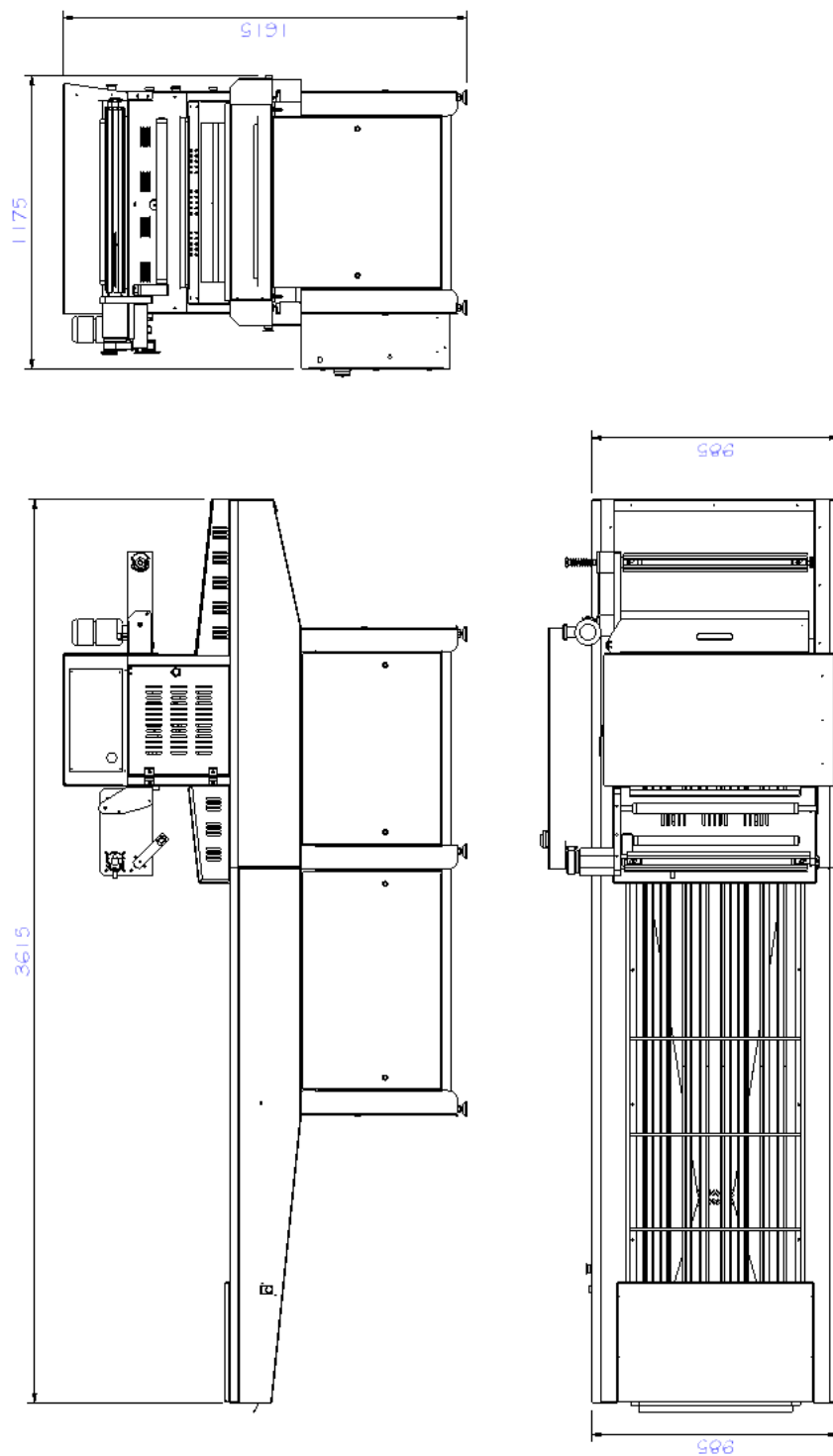
ELECTRICITY

- The contact with circuits where there is high tension can provoke burns, cause shock, unconsciousness and death for electrocution. This can be caused by a scanty acknowledgment if dangers connected to the electric equipments use.
During the maintenance operations on equipments in tension, it is necessary to respect the following indications:
 - The staff alone, possibly, must not operate;

- make sure that the proper staff becomes perfectly acquainted with the equipment components and with the maintenance procedures;
- use the maintenance devices;
- open the feed contacts of equipment before obtaining the resistance values;
- check that in the low tension circuits there is not high tension;
- do not use magnetic tools by strong magnetic fields;
- the staff in charge with operations, must not wear objects that can act as wires;
- inspect the working area and make sure that the floor is clean and dry;
- check the assistance procedures before starting the work, by checking the electric diagram, by looking over the system structure.

PGG1-00468A SPEEDY II 2007 VG L

TECHNICAL FEATURES



* Demonstrative drawing not to be used for plant dimensioning.

TECHNICAL FEATURES		
	Measurement unit	SPEEDY II VG/N
Lenght	mm	3615
Witdth	mm	1175
Height	mm	1615
Weight	Kg	~ 300 ~ 350
Installed power	kW	See electric drawing
Power supply	Volt / Hz	
Pneumatic supply	bar	38 Lt/cycle - 6 Bars
Adjustable sealing time	Second	0 ÷ 5
Max. size of container	Mm	570x330
Max. depth of containers	Mm	130

The FP SPEEDY II is a thermosealing machine suitable to seal pre-formed plastic, aluminium and cardboard trays having different shapes, by compatible lidding film. The machine is conceived according to the most modern technologies, being made of stainless steel and anodized aluminium. It is fully electronic. It is able to transfer the containers to the sealing area, to carry out the sealing and finally eject the thermosealed containers; everything is carried out automatically. Other functions, like product filling and trays denesting together with trays placement on the conveyor line, can be automatically carried out by equipping the machine with the accessories which the machine is pre-fitted for. Among the options there are the printed top web system and the coding system too.








The Speedy machine is able to carry out the following operations:


- Only sealing
- Vacuum packing
- Modified atmosphere

The machine is equipped with a small key board which simplifies the control and the working cycle change and let to store 5 different packaging programs.

The machine consists of the following units:

PGG2-00729A	⇒	BASE PROGAS
PGG2-00025A	⇒	TRAYS CHECK
PGG2-00728A	⇒	SEALING STATION PROGAS
PGG2-00727A	⇒	PROGAS PLANT
PGG2-00324A	⇒	TRANSMISSION 2007
PGG2-00323A	⇒	UNWINDING GROUP 2007
PGG2-00343A	⇒	REWINDING GROUP 2007
PGG2-00358A	⇒	EJECTION WITH ROLLS 2007
PGG2-00312A	⇒	2007 CONTROL PANEL PLUS
PGG2-00730A	⇒	PNEUMATIC PLANT 2008
PGG3-00123A	⇒	SEALING MOULD PROGAS
PGG3-00008A	⇒	PRINTED TOP WEB

Cautions	
	During machine working nobody, except the proper operator has to stay near the machine or even intervene on the same.
	The protections have been planned in order to safeguard the operator during his work. Protection mustn't absolutely be removed during the running the machine.
	During machine working pay always the greatest attention to the transmission chain.
	During machine working pay always the greatest attention to the hands crushing danger! do not lay hands on the slideways when the machine is on motion.
	During machine working pay always the greatest attention to the sealing plate.
	During machine working pay always the greatest attention to the cutting blade.
	During the substitution operation it is COMPULSORY to use devices of individual protection.

Note	
	Measure reported in table and drawing are indicative. ILPRA S.p.A. reserve to modify dimensions, shape and machine characteristics in whichever moment and without some notice.

PGG2-00729A PROGAS BASE






DESCRIPTION

The base is the "body" of the machine. All the parts relevant to the movement system, the pneumatic and the electrical one are inside the base.

To have access to the base, it is necessary to remove the side covers by means of the supplied keys.

Only skilled staff can carry out this operation; the power must be cut off from the machine. ILPRA refuses all responsibility in case these safety rules are not respected.

To make the moving of the machine easy. It is possible to assemble some wheels. (OPTION)

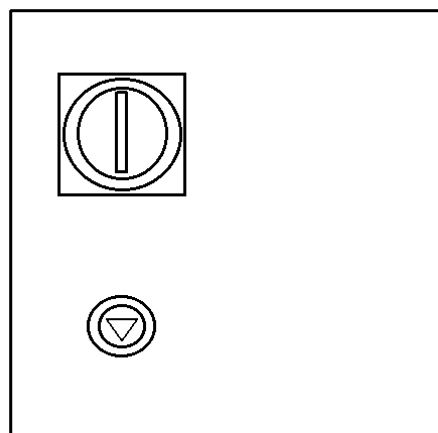
Cautions	
	The protections have been planned in order to safeguard the operator during his work. Protection mustn't absolutely be removed during the running the machine.
	During machine working nobody, except the proper operator has to stay near the machine or even intervene on the same.
	During machine working pay always the greatest attention to the transmission chain, cutting blade and sealing plate.
	During the substitution operation it is COMPULSORY to use devices of individual protection.
	The opening keys of the protections must be kept by the machine responsible only. To leave the key inside the lock may involve the risk that unauthorised persons get in contact with dangerous elements.

PROTECTIONS AND SAFETY DEVICES

The manufacturer has planned some mechanical protections and devices on the machine so as to safeguard the operator in case of contact, even involuntary, with dangerous parts of the machine

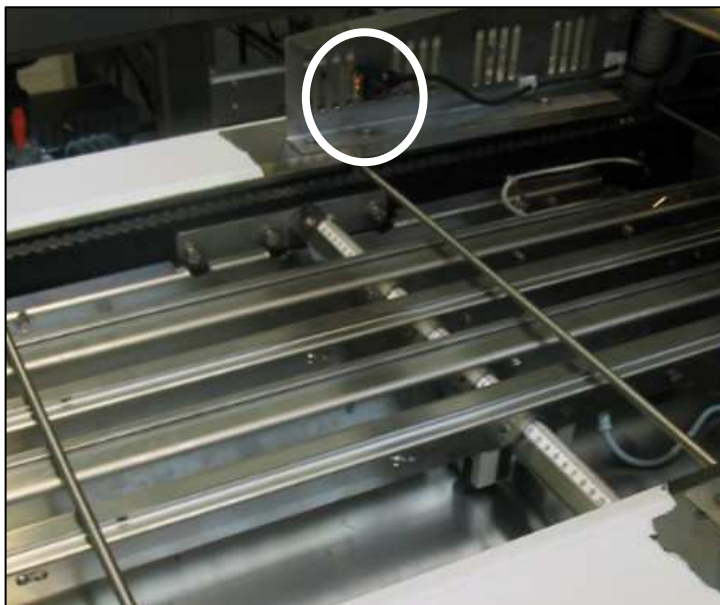
1. Sideways and from the front of the basement where the vacuum plant is placed, there are 3 metal covers fixed to the frame of the machine with some screws: it is necessary to use the relevant wrench to remove them.
2. On the contrary the back is inaccessible since:
 - There is a metal cover includes the step by step motor of the chain and of the pneumatical valves;
 - There is an electrical box fixed to the machine frame
3. At the end of the working area, on the left side, there a cover which includes the transmission gears of the trays transport chain. The cover can be open by means of a special cross section wrench that must be kept by the maintenance operator.
4. Also the electrical box can be open by means of a special cross section wrench that must be kept by the maintenance operator. In this way every dangerous electric components is unreachable by not authorised person. Besides the door of the box is equipped with automatic door interlock general switch that opens it by a rotation of the switch to the position 0: this rotation immediately stops the electrical feeding to the machine

PICTURE 1



5. The pneumatical plant of the machine is equipped with an exhaust valve that quickly discharges the air inside the circuit : it is placed on the Filter/Reducer Group on the back of the machine
6. At the entrance of the packaging area, a fixed cover has been placed so as the operator cannot reach the sealing area during the running of the machine. On the left side of the cover, there is a safety photocell that immediately stops the machine if the photocell detects an element. The working cycle resumes only after a specific procedure of restart.

PICTURE 2



7. The front side of the packaging area is equipped with a removable door: it is fitted up with a microswitch placed inside the cover that includes the upper part of the sealing unit. This microswitch immediately stops the working cycle when the door opens. The following working cycle resumes only after a specific procedure of restart.
8. The whole sealing unit is included in a metal cover, fixed to the body of the machine by means of fixing screws . The control panel is fixed on the cover.
9. The unloading area of the trays is included in a plexiglas cover on its upper part, fixed to the body of the machine by means of fixing screws.

10. The film tightening roll is equipped with a metal cover (1) in order to avoid the operator's hands jamming during the film sliding. The cover has a micro-switch which, removing the protection, disconnect the compressed air system and the working cycle as a consequence.

PICTURE 3



11. The machine is equipped with two red emergency buttons that completely stop the machine. The following working cycle resumes only after a specific procedure of restart afterwards described.

The two buttons are placed:

- On the control panel.
- On the back of the machine, next to the beginning of the working area.

Cautions



An incorrect use of the emergency button causes stress to the machine. Please use this button only in case of real emergency for the operator and machine. Always press the stop button to stop the machine.

FEW REMARKS ON THE SAFETY CONDITIONS AND POSSIBLE RISKS

- The machine has been planned so as to reduce probable dangerous conditions. They may occur only after a non compliance with the instructions of the installation and an incorrect use of the machine.
- The responsible of the machine must always check every possible risk . He must always be informed about the maintenance of the machine.
- Every defective part of the machine must be repaired or immediately replaced.
- High tension circuits can cause burns, shocks, a state of unconsciousness, and death for electrocution too, if touched, owing to a little knowledge or the electrical equipments.
- During the maintenance operations on live machines, it is necessary to observe the following instructions:
 - If possible, the personnel mustn't work alone.
 - If possible, use only a hand to work.
 - Check the equipments and wires at regular intervals.
 - Be sure that the staff in charge knows the machine components very well and the maintenance procedure too before starting work.
 - Wear protective gloves.
 - Open all the feeding contacts of the equipment before detecting the resistance values.
 - Verify that in the low tension circuits there is no high tension.
 - Do not use magnetic tools near magnetic fields.
 - The technician in charge of maintenance must not wear anything that can act as conductor.
 - Examine the working area and be sure that the floor is clean and dry.
- The machine requires only one operator during working; therefore nobody else must be near the machine.
- At any time, to stop the working cycle, press the red emergency button on the control panel or on the back side. In this way the electric supply to the machine is cut off. To reset the working, turn the red button clockwise and proceed with the re-starting operations described in the manual.
- Nobody is allowed to pass during the machine unloading to avoid any risk to the staff.

- Be careful to avoid dangerous swinging when the machine is lifted up during the unloading.
- Before placing the machine verify the overall dimensions in the Manual considering also the room necessary to perform the maintenance operations of the inner parts (that require the opening of the covers).
- The user must supply enough light in the room where the machine is installed, otherwise he will have to arrange for further lighting.
- The connection to the electric supply must be performed according to the regulations in force. Before the connection, be sure that the voltage and frequency correspond to the data on the plate.

PGG2-00025A TRAYS CHECK

DESCRITPION





This unit has two sensors (1 - Pict. 1) which are fixed along the transferring guides for trays. During the transport along the conveyor the trays press the sensor and close the contact which gives the confirmation signal of tray presence to the sealing station.

In case of mould with 2 or more impressions, all sensors have to be pressed by trays, otherwise the trays are ejected without being sealed.

A photocell (2 – Pict. 1) is on the left side of the cover and stops the machine if a foreign body goes through the cover during the sealing phase.

PICTURE 1



Cautions	
	The protections have been planned in order to safeguard the operator during his work. Protection mustn't absolutely be removed during the running the machine.
	During machine working nobody, except the proper operator has to stay near the machine or even intervene on the same.
	During machine working pay always the greatest attention to the transmission chain, cutting blade and sealing plate.
	During the substitution operation it is COMPULSORY to use devices of individual protection.

LONGITUDINAL BARS ADJUSTMENT

The longitudinal sliding bars have to be adjusted according to the number of impressions of the mould and the tray dimensions.

The transferring guides have to be adjusted according to the tray dimensions and number of mould impressions.

In case of a single mould, read the following instructions to adjust the transferring guides:

- Remove the side frames which are placed along the guides
- Lift the two middle guides and bring them close to each other, in the middle of the machine
- Place the tray in the middle of working area
- Lift and bring the external transferring guides in contact with the tray
Pay attention that the tray is corresponding to its position in the mould.

When you work with a double mould (2 trays per cycle) you have to use all the 4 bars and each tray must be centered with the relevant impression on the mould.

In order to correctly position the guides, you can find a graduated scale.

PICTURE 2



PGG2-00728A SEALING STATION PROGAS

DESCRIPTION

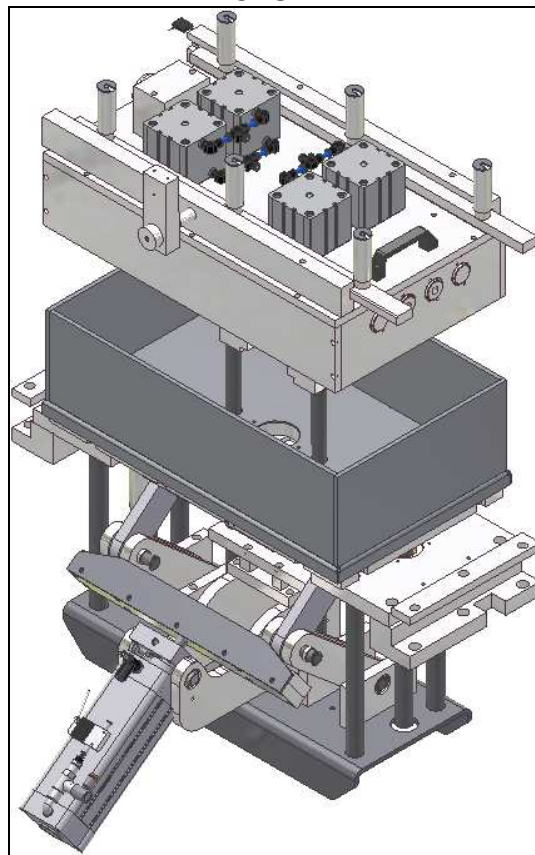
The sealing station consists of:

- An extractable upper chamber, on which are fitted two sealing piston. This chamber contains the mould.
- A lower stainless steel chamber, which is moved upwards by a toggle (acted by a pneumatic cylinder).

This chamber has two main functions:

1. When closed against the upper one, it makes possible the vacuum inside the whole chamber.
2. Support the tray-carrier inside which are located the trays to be sealed.

PICTURE 1



PGG2-00727A PROGAS PLANT

DESCRIPTION

The described system is an option which allows to work in Vacuum mode or in Vacuum/Gas mode.

Note



Machine could be supplied with many kind of vacuum pump for vacuum cycle system. The descriptions are included in the apposite paragraph.

To get a proper working the machine will be equipped with the followings parts:

VACUUM PLANT

- An upper chamber and a lower chamber.
- Fitting pipes.
- Vacuum valve.
- Compensation valve.
- Vacuum block.
- Vacuum pump.

VACUUM/GAS PLANT

- An upper chamber and a lower chamber.
- Fitting pipes.
- Vacuum valves.
- Compensation valve.
- Vacuum pump.
- Vacuum block.
- Gas valve.

TYPES OF PACKAGING

The types of packaging that the machine can carry out are:

- N PACKAGING (sealing only).
- VACUUM PACKAGING (vacuum + sealing).
- VACUUM/GAS PACKAGING (vacuum + gas + sealing).
- PROGAS PACKAGING (vacuum + gas + sealing).

N PACKAGING

This system allows the packaging trays in only sealing. The system consisting of the sealing plates and of the inferior counter mould. The inferior counter mould, moved by a cylinder, goes up as long as it closes against the superior chamber, at this point the sealing cylinders, carries out the sealing of the packages.

“ VACUUM ” PACKAGING

The inferior chamber, moved by a cylinder, goes up towards the superior chamber. When the chambers are closed, they create a chamber. The vacuum valves open, to allow to the pump to suck the air in the chamber and then in the container. When the vacuum degree has got the wished value, the vacuum valves close and the machine carries out the sealing. At this point the compensation has been carried out. The compensation is the inlet of the air inside the chamber to allow the opening (If this operation is not carried out the opening is impossible because of the vacuum).

“VACUUM/GAS” PACKAGING

In this packaging system, when the closing of the chamber is carried out, as in the previous operation, follows the opening of the vacuum valve and then the suction of the air by means of the pump. When the vacuum degree has got the wished value, the vacuum valves close and the gas valve open. The sealing is carried out, when the environment in the modified atmosphere has been created and when the atmospheric pressure has been reintroduced.

“PROGAS” PACKAGING (OPTION)

In order to optimize the production speed and gas consumption, the PROGAS circuit has been produced.

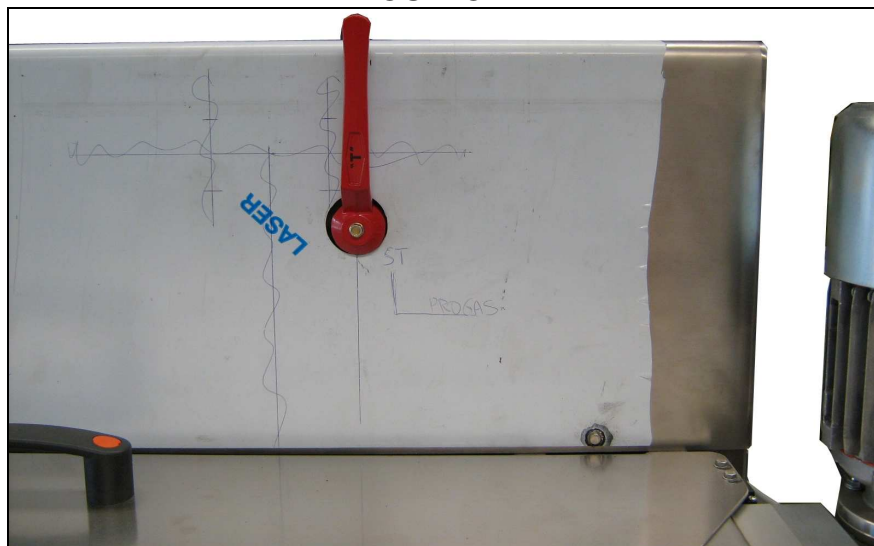
In comparison to the standard compensation system, the PROGAS system executes vacuum and gas injection directly inside the tray under the sealing film.

On the upper cover right side there is a tap that permits to select PROGAS working cycle or traditional VACUUM/GAS.

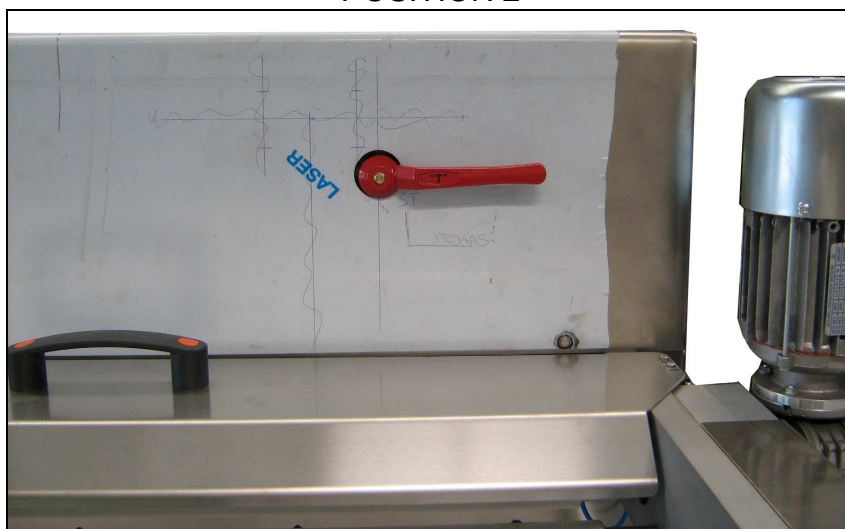
POSITION 1: TRADITIONAL VACUUM/GAS CYCLE

POSITION 2: PROGAS CYCLE

POSITION 1



POSITION 2



VARIOUS VACUUM/GAS PACKAGING

Depending on the set **gas value** it is possible to obtain 3 different way of packaging:



FLAT PACKAGE: the set gas value is such (approx. 0) to make the inside pressure equal to ambient pressure. In this case the lidding film is tightly flat on the tray.



CONCAVE PACKAGE: This way is used to obtain UNDER VACUUM packaging.

The set gas value is lower than atmospheric pressure. The sealing will be performed when the gas value is achieved. To allow the chamber opening, the gas must be set with a minimum negative value (very close to 0).



CONVEX PACKAGE: By this way you can obtain an OVERPRESSURE packaging by setting a gas value = 000 mhg and set as GAS DELAY will give more or less dome shaped tray. This time has to be found by attempts.

VACUUM PUMP 100 M³

SAFETY

This vacuum pump has been manufactured according to the latest technical standards and safety regulations. If not installed properly or not used as directed, dangerous situations or damage might occur.

APPLICATION

This vacuum pump is designed for use in the fields of coarse vacuum.

Liquid and solid particles must not enter the pump. Operating the vacuum pump without oil will damage the pump!

START-UP

It is essential to observe the following instructions step by step to ensure a safe start-up. Start-up may only be conducted by trained specialists.

a) Setting-up

The pump must be set up or mounted horizontally on a flat surface. Special mounting is not required, as the pump can be mounted with screws via the threads of the rubber feet of the pump. The following ambient operating environment must be observed:

Ambient temperature: 12 to 30°C

Ambient pressure = Atmosphere

In order to avoid overheating of the pump, an undisturbed fresh-air flow to the pump is necessary.

b) Inlet connection

The inlet flange can be connected with a vacuum tight flexible hose or pipe. The mounted pipes should cause no tension on the pump's flanges. If necessary, compensators must be installed. Restrictions of the pipes must be avoided in order not to decrease the displacement of the pump. The nominal diameter of the pipes has to be at least the same as the diameter of pump's inlet flange. No foreign particles (e.g. solder soot) or liquids may enter the inlet line, as they could destroy the vacuum pump. Restricting devices should not be installed in the exhaust line. Always connect the exhaust pipe in a manner, so that no condensate can enter the pump (slope, siphon).

ELECTRICAL CONNECTION

Attention



Electrical installation may only be conducted by a specialist. Regulations following EMV Directive 89/ 336 EEC, low Voltage Directive 73/ 23 EEC, and the appropriate EN Standards have to be applied as well as VDE/ EVU regulations and local or national regulations.

- a) Voltage and frequency on the nameplate must agree with the supply voltage.
- b) The drive motor must be protected against overloads according to VDE 0113. In the case of portable installation of the vacuum pump, the electrical connection must be equipped with cable guides that have the function of traction relief.
- c) To check the direction of rotation of the pump, flick the ON/OFF switch. In case of incorrect direction reverse the polarity of any two of the electrical phases. Looking at the motor fan cover, the direction of rotation is counter-clockwise

OPERATION ADVICE

- a) To pump condensable vapours, a gas ballast valve should be installed. The vacuum pump should run for 30 minutes prior to operation with the inlet connection closed, in order to reach the operating temperature of 75°C. Only at this operating temperature can condensable vapours be transported. After use, the pump should be left running for an additional 30 minutes to clear the oil of condensate.

Attention



Attention! These vacuum pumps can be used to evacuate air or dry gases, which are not aggressive, poisonous or explosive. Other agents may not be transported.

TECHNICAL DATA			100 M³
Nominal pumping capacity	50 Hz	m ³ /h	100
	60 Hz	m ³ /h	120
Final pressure	RA	mbar	0,5
	RC		20
Nominal motor power	50 Hz	kW	2,2
	60 Hz	kW	3,0
Noise level (DIN 45635)	50 Hz	dB (A)	67
	60 Hz	dB (A)	71
Water vapour tolerance max.		mbar	40
Water vapour capacity	50 Hz	l/h	2,8
	60 Hz		
Working temperature	50 Hz	°C	84
	60 Hz	°C	93
Oil filling		l	2
Weight approx.	50Hz	kg	70
	60 Hz		

VACUUM PUMP MAINTENANCE

Attention



The vacuum pump must be switched off and secured against accidental switch-on for all maintenance .

a) The oil level should be checked at least once a day.

- If the level is below the MAX-mark on the oil sight glass, more oil should be added. Fill oil until the level reaches the MAX-mark on the oil sight glass.

b) Changing of oil and filter.

- Oil must be changed after the first 100 hours of operation. Further oil changes depend on the operating conditions. The oil must be changed after 500-2000 hours of operation, but at least semi-annually.
- If there is considerable pollution could be necessary to change the oil more frequently.
- To change the oil, the warm pump must be switched off and ventilated to reach atmospheric pressure. Drain the oil through the oil drain plug. When the oil stops running, close the plug and start up the pump again for a few second. Reopen the oil drain plug and discharge the remaining oil. Refasten the oil drain plug, remove the oil filter and replace it. Fill with fresh oil through the oil fill plug.
- Used oil and used oil filter are to be disposed of according to environment laws.

c) Types of oil/oil quantity

- Oils according to DIN 51506, lubricating oil group VC must be used .
- Oil filling is 1 litres.

d) Monitoring and change of exhaust filter

- The exhaust filters are best monitored using a filter pressure gauge.
- The filter pressure gauge can be screwed into the thread of the oil fill plug. When the measured pressure reaches $>0,6$ bar (overpressure), the exhaust filters must be changed.
- Increased energy intake by the motor could also be the result of soiled exhaust filter.
- If oil mist escapes from the exhaust during the operation of the vacuum pump the exhaust filter must be changed.
- When installing a new exhaust filter, a new seal for the exhaust cover plate must also be installed.

e) Cleaning of the gas ballast valve (Option)

- In case of visible dirt in the gas ballast valve the dust filter must be replaced by a new one.

f) Cleaning of inlet flange

- To clean the inlet flange screen, disconnect the four screws and remove the inlet flange. Take out the screen and clean with blast air.

g) Cleaning of fan covers.

- Both fan covers should be inspected regularly for dirt. Soiling of the fan covers prevents cool air intake and may lead to overheating of the vacuum pump.

TROUBLE SHOOTING

FAULTS	CAUSES	REMEDIES
Pump starts up with difficulty.	Motor is running only on two phases.	Check voltage on each phase.
	The rotation direction of the electric motor is wrong.	Reverse the rotation direction.
Electrical protection intervenes after short time.	The feeding cable section is below measure.	Set the protection again with a lightly higher (5%) margin. Check the cable section according the input.
Sound of vanes.	The pump has been filled with too much oil.	Drain the oil and check the level when the machine does not work.
High absorption.	Wrong oil.	Use only oil recommended on Instruction Manual.
	Room temperature is too low.	With room temperature lower than 10°C use less viscous oil. Let the pump work with the inlet closed till it warms up.
	Pump has not working for a long time.	Drain oil. Replace oil with a mixture of oil/gas oil (1:1). Run pump for about 30 minutes with the inlet closed; then drain the mixture and replace oil filter. Fill pump with new oil.
	Exhausted oil filters.	Replace them.
Vacuum not enough.	Chamber gaskets broken.	Replace gaskets.
	Air infiltration in the pipes.	Check inlet piping for leaks.
	Insufficient oil in the pump.	Put oil in the reservoir.
	Oil filter is clogged.	Replace oil filter.
Reduced inlet capacity.	Net filter clogged.	Remove the inlet flange, clean the filter and the inside of valve.
	Filters worked-out.	Clean with compressed air or replace.

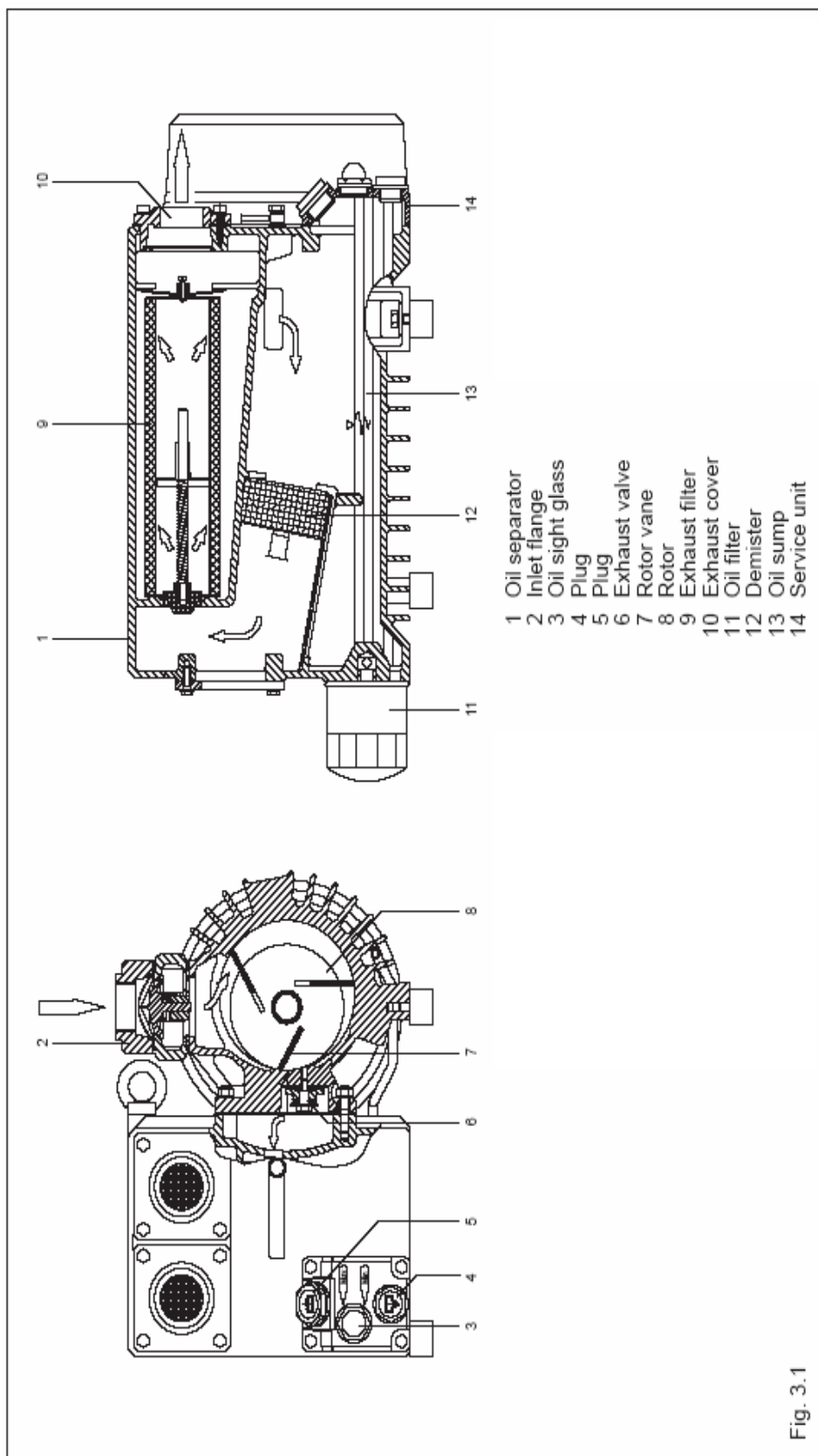
FAULTS	CAUSES	REMEDIES
Pumps runs too hot; beyond 80/90°C.	Air ventilation to pump not enough.	Provide the pump with more air.
	Coil, radiator, fan, etc....are dirty.	Clean with compressed air or a solvent.
	Oil filter clogged.	Replace it.
	Too much oil in the pump.	Drain oil to recommended level.
Pump is leaking oil.	Hydraulic connections are loosened or damaged.	Check the connector with solvent, tighten and replace them if necessary.
	Filters worked-out	Replace filters and Gaskets.
Pump smokes or is leaking oil.	Pump is sloping: the oil inside is not in the usual position.	Run pump for 2' with the mouth half open.
	Wrong oil added.	Check oil and replace if necessary.
	Oil non-return line is clogged.	Remove oil non-return lines and clean fittings with a solvent and pipes with air.
	Exhaust filters are wrongly placed.	Check the correct housing of the filters, where seals must be perfect.
	Air filter clogged.	Replace it.
Motor is running, pump is not.	Coupling insert Damaged.	Check and Replace.
Pump blocked; motor is not running.	Pump is without oil.	Check and refill.
	Vanes are damaged.	Replace vanes and oil.
The oil in the pump is dark coloured.	Overused oil.	Drain oil immediately.
	Wrong oil.	Replace the oil with a new oil recommended on this manual.
	Oil burning due to pump overheating.	Replace oil with a mix of oil and gas oil (1:1); run pump for about 30 minutes with the inlet closed, then drain the mix, change oil filter and fill the pump with a new oil.

FAULTS	CAUSES	REMEDIES
Emulsified oil.	Water or water-vapour coming through the pump.	Proceed as above described.
Viscous and thick oil.	Wrong oil.	Proceed as above.

PHOTO 1



PHOTO 2

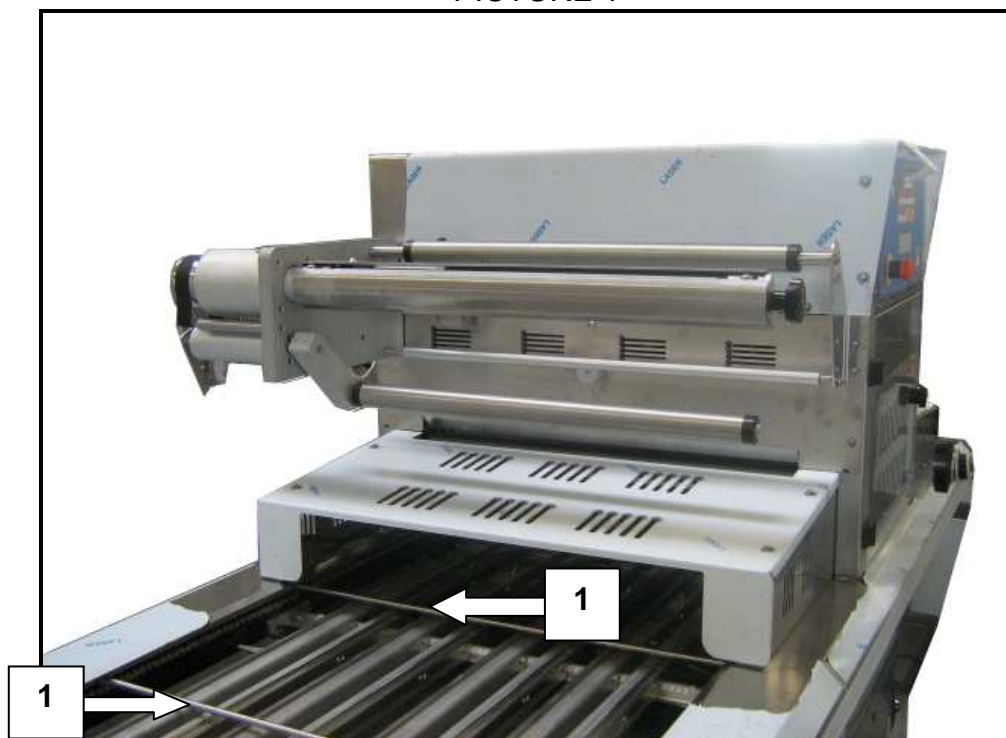






PGG2-00324A TRANSMISSION 2007

DESCRIPTION

This station is endowed with two parallel chains, which are driven by a stepping motor. The two chains are linked together by some bars (1), which push the tray forward.

PICTURE 1



Cautions	
	<p>The protections have been planned in order to safeguard the operator during his work. Protection mustn't absolutely be removed during the running the machine.</p>
	<p>During machine working nobody, except the proper operator has to stay near the machine or even intervene on the same.</p>
	<p>During machine working pay always the greatest attention to the transmission chain, cutting blade and sealing plate.</p>
	<p>During the substitution operation it is COMPULSORY to use devices of individual protection.</p>

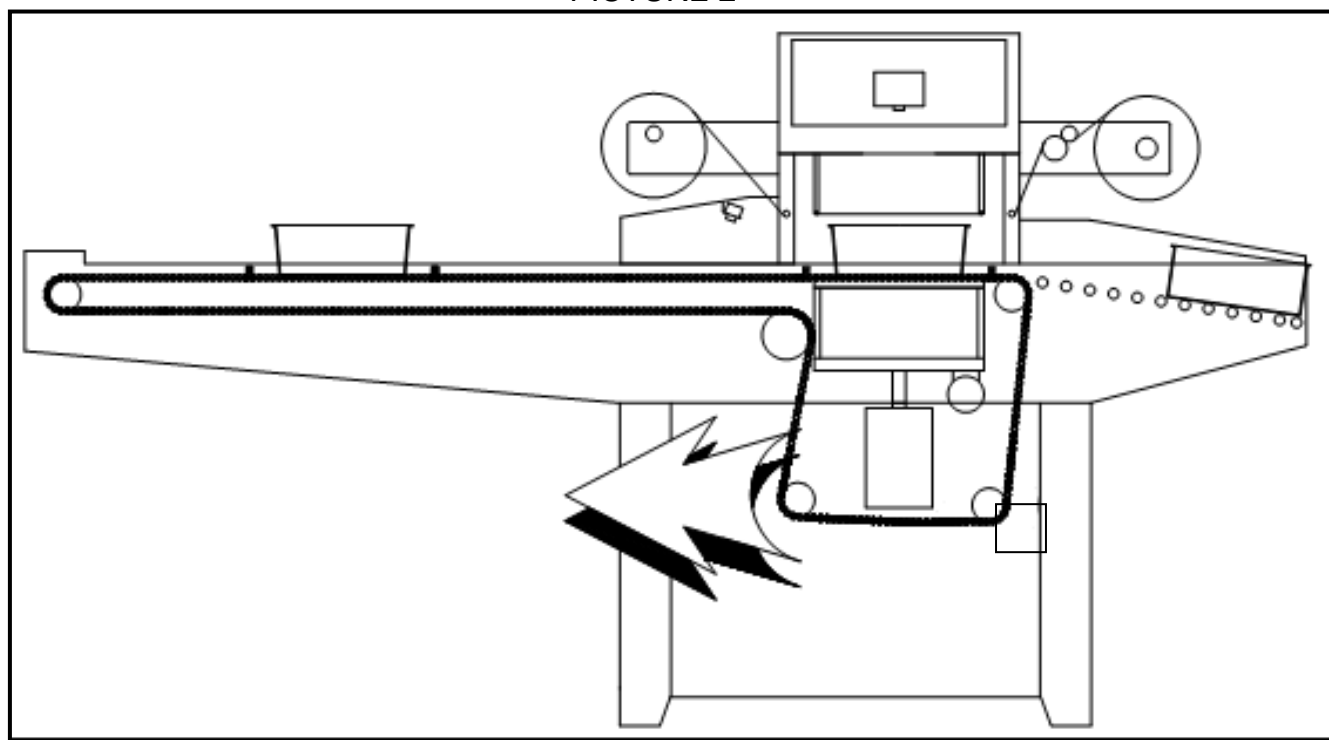
ADJUSTMENT OF TRANSPORT CHAINS

The machine utilisation could provoke the loosening of the transport chains tension: so it is useful to control the tension of these chains and, eventually, to adjust them.

Please act as follows to carry out this operation:

1. Remove the front cover and the lateral left one of the base.
2. By a proper tool, act on the adjusting tension transport rods of the transport chains (they are blocked inside some slots which let to adjust the position of the lowest shaft of the chains).
3. Fasten the tensions rods in the desired position.
4. Reassemble the protections correctly.

PICTURE 2



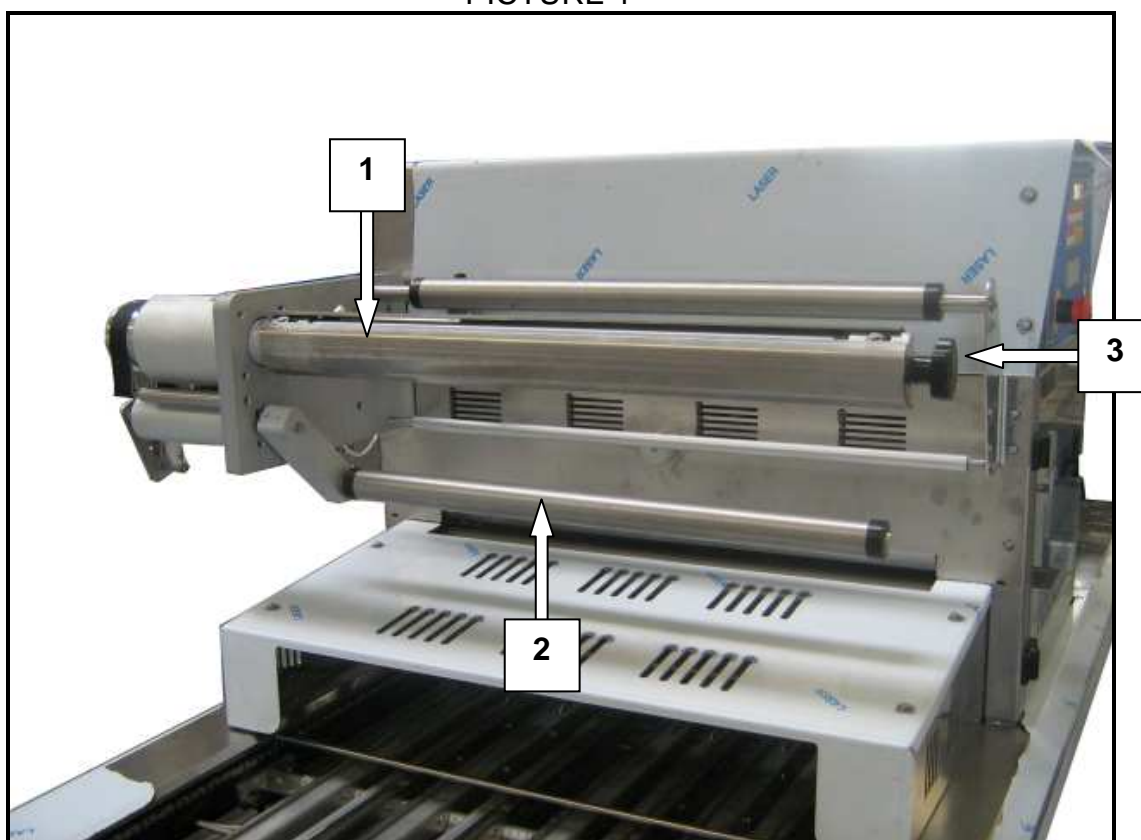
PGG2-00323A UNWINDING GROUP 2007

DESCRIPTION

The unwinding roll is equipped with:

- A mechanical clutch and one holds up the film reel (1 – Pict. 1).
- An oscillating roller to guarantee the right tension to the sealing film (2 – Pict. 1).

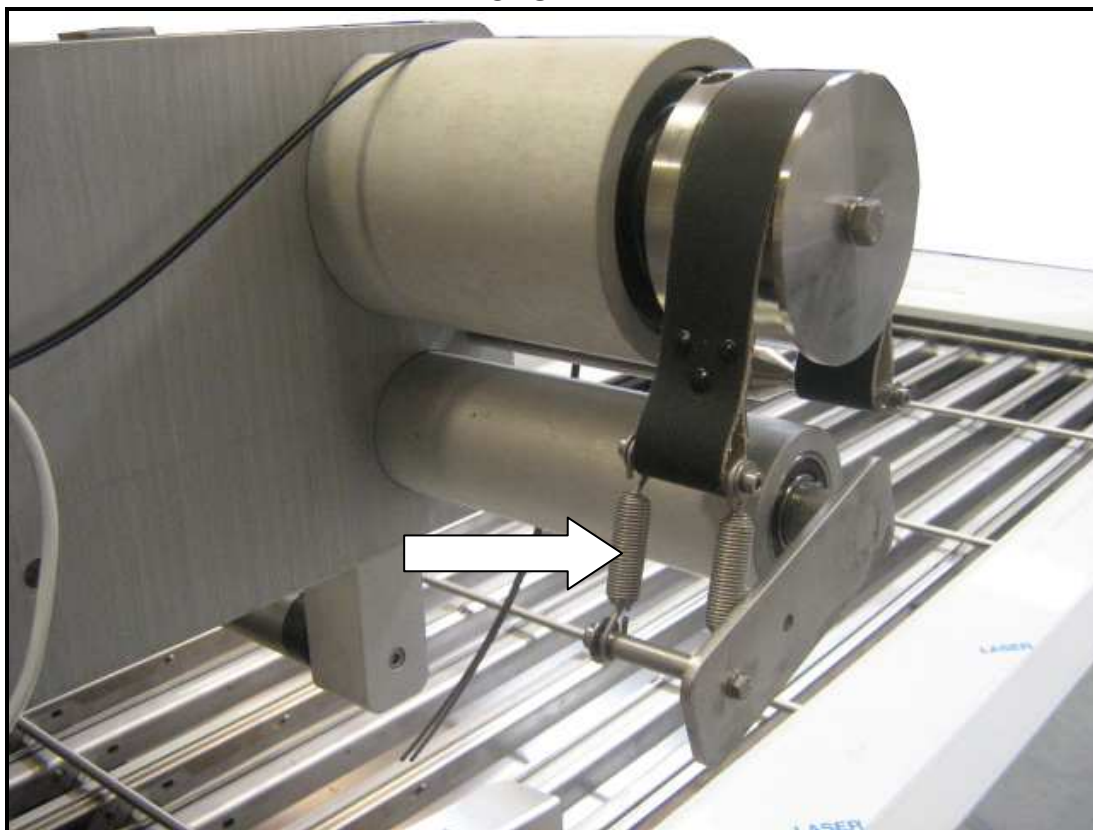
PICTURE 1



The unwinding shaft is endowed with a mechanical expanding system. By means of the knob (3 – Pict. 1) is possible to increase or decrease the shaft diameter in order to lock or remove the film roll.

The friction of shaft (Picture 2) avoids film tearing or wrong unwinding.
The traction of the springs depends on the change of the dimensions of the reel during the carrying out of the film, braking of releasing the shaft.

PICTURE 2



THERMOSEALABLE FILM FITTING

1. Place the film reel on the reel-holder roll, center it in relation to the sealing unit and the tray.

Cautions

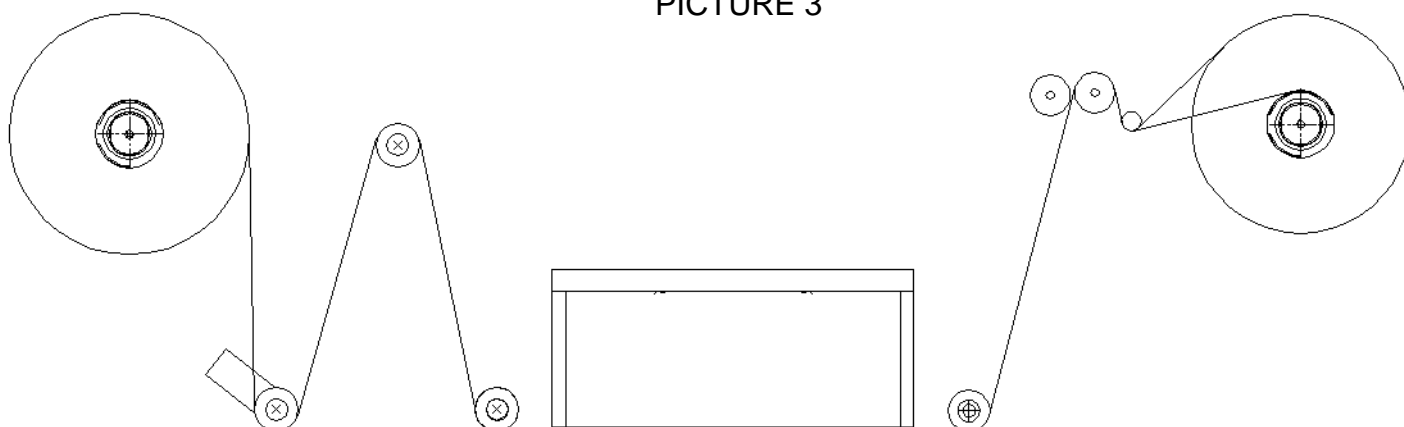


Be sure that the thermosealable side of the film is towards the tray and that the film is tight.

- It is needed to let run it following the way showed in the following picture and block it on the unwinding roller.

The unwinding shaft is endowed with an adjustable retainer which stops the roll once placed in the correct position.

PICTURE 3



Cautions



The protections have been planned in order to safeguard the operator during his work. Protection mustn't absolutely be removed during the running the machine.



During machine working nobody, except the proper operator has to stay near the machine or even intervene on the same.

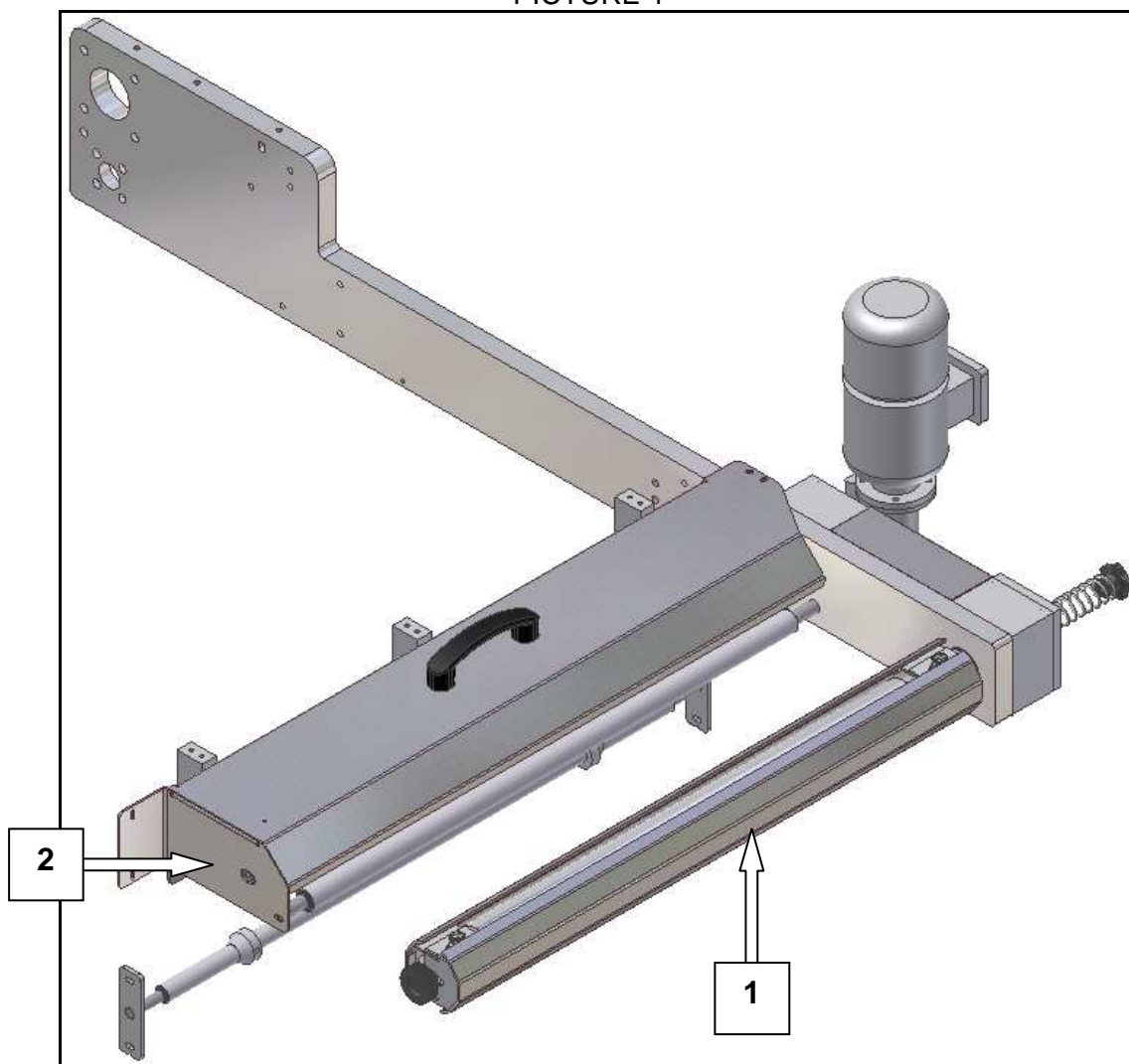


During the substitution operation it is **COMPULSORY** to use devices of individual protection.

DESCRIPTION

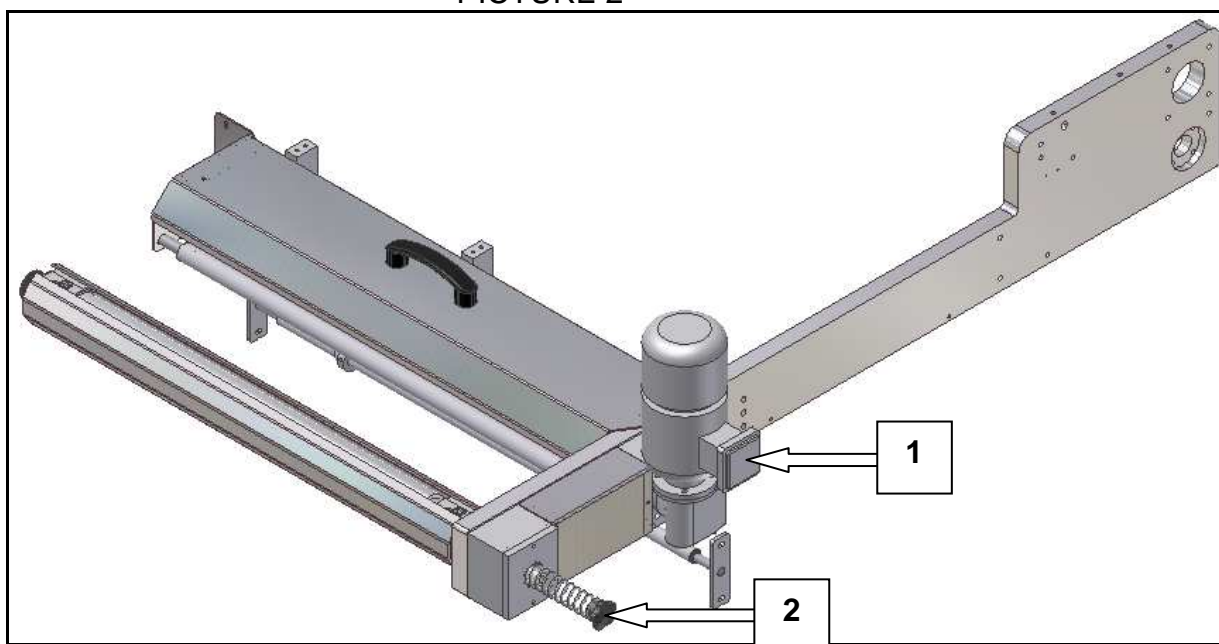
The rewinding group consists of a roller that collects the scrap (1 – Pict. 1) and by two rubber coated rollers which carry out the film (2 – Pict. 2). (This roller is placed under its protection carter).

PICTURE 1






The two rollers coated are placed in contact by means of a couple of the pneumatic cylinders, to avoid some movements of the film and to get the maximum traction. The rewinding of the film is made by an electrical motor equipped (1 – Pict. 2) with a reduction gear connected to a rubber roller that drives the film: this rubber roller is connected to the roller that collects the scraps through a belt so as the two rollers move simultaneously. Besides the shaft which collects the scraps is equipped with an expansion device that increase its diameter, by easing the taking out of the scraps during the changing of the reel film.

PICTURE 2



The roller that collects the scraps is equipped with a mechanical clutch (2 – Pict. 2) in order to adjust the film stretching. The clutch is adjustable through the knob (2 – Pict. 2) that must be slacked gradually compared to the gradual increase of the collected scrap diameter.

Cautions	
	<p>The protections have been planned in order to safeguard the operator during his work. Protection mustn't absolutely be removed during the running the machine.</p>
	<p>During machine working nobody, except the proper operator has to stay near the machine or even intervene on the same.</p>
	<p>During the substitution operation it is COMPULSORY to use devices of individual protection.</p>

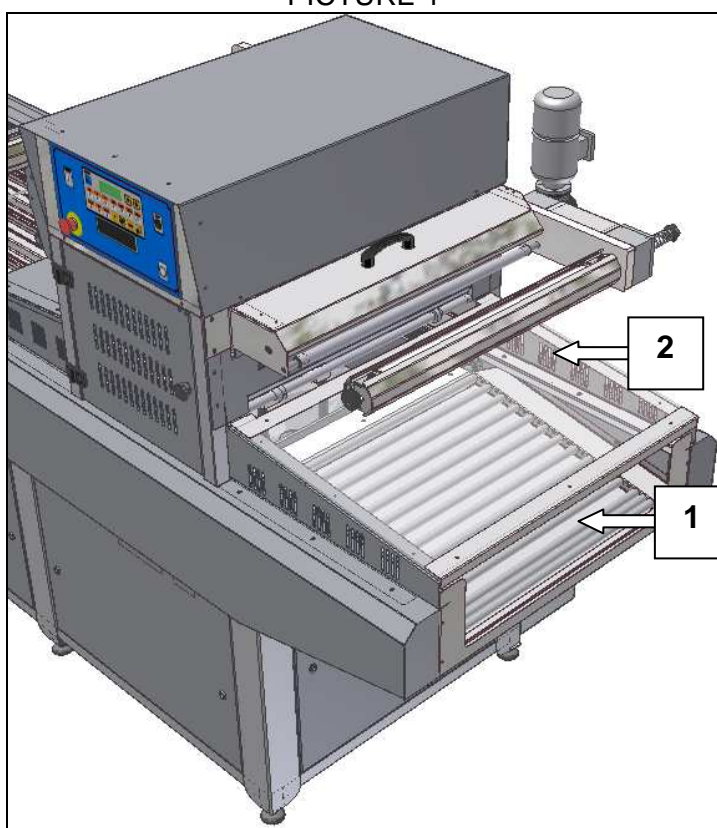
PGG2-00358A EJECTION STATION WITH ROLLERS 2007




DESCRIPTION

After the sealing cycle, the chain bars transfer the sealed tray to the ejection area. An inclined plane (1 – Fig. 1), covered with anti-grip material lets the packages glide outside the machine.

The ejection station is endowed with a Plexiglas cover (2 – Pict. 1) which allows the operator to check the trays advancing.

PICTURE 1




Cautions	
	<p>The protections have been planned in order to safeguard the operator during his work. Protection mustn't absolutely be removed during the running the machine.</p>
	<p>During machine working nobody, except the proper operator has to stay near the machine or even intervene on the same.</p>
	<p>During the substitution operation it is COMPULSORY to use devices of individual protection.</p>

PGG2-00312A CONTROL PANEL PLUS REV 2

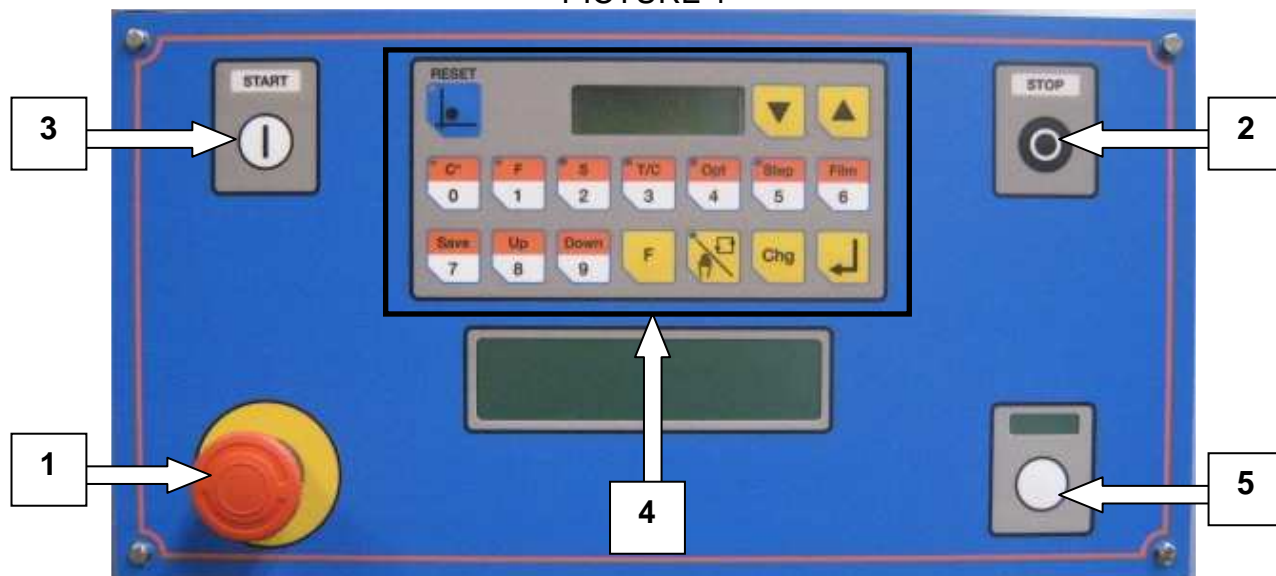
DESCRIPTION

Near the packaging area there is the control panel that includes all the devices necessary to set and control the desired working cycle. They are the following:

REFERENCE	DESCRIPTION
1	EMERGENCY BUTTON Red mushroom button. It has been fitted also on the back side of the working surface.
2	STOP It allows to stop the working cycle. To restart press the START button. It has been fitted also on the back side of the working surface.
3	START It allows to enable to auxiliaries electric supply. Allows to start the automatic working cycle. Allows for the step-by-step working each time you press it.
4	KEYBOARD It allows to set and display all the data necessary to carry out the working cycle.
5	MOULD UNLOCK BUTTON After follow the following correct passages, allow the locking or the unlocking of the mould.











Warning 	<p>If emergency button is pressed or frontal gate is open the heating element functions are disabled.</p>
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PICTURE 1




KEYBOARD

By means of the keyboard it is possible to modify and display all the data relevant to the production process:
















REF.	KEY	DESCRIPTION
1		It allows to set all the movable elements of the machine, during the re-start of the machine.
2		By pressing it you can move downward in the item list.
3		By pressing it you can move upward in the item list.
4		By pressing it is possible to enter in the heating mould menu.
5		By pressing it is possible to enter in the film unwinding menu.
6		By pressing it is possible to enter in the sealing cycle of the machine.
7		By pressing it is possible to visualize the counting of the sealed pieces.
8		By pressing it is possible to enable or disable the optionals.
9		By pressing it is possible to enter in the chain moving menu.
10		By pressing it is possible to carry out the manual unwinding. This is possible only when the machine is in STOP (STOP button illuminated).

11		By pressing it is possible to save a recipe by a progressive number.
12		By pressing it is possible to store the recipe with his number inside PLC memory .
13		By pressing it is possible to load the stored recipe from PLC memory.
14		<u>INTERNAL MACHINE PARAMETERS:</u> this data are protected by password. ONLY FOR ILPRA S.p.a. TECHNICAL SERVICE USE.
15		It allows to choose the AUTOMATIC/MANUAL working. When red led is lightened you are in automatic cycle.
16		By pressing it is possible to change any parameter value. It must be pressed every time you need to insert new data.
17		ENTER KEY: confirm the value that was set.


SCREEN PAGES











Warning	 All the time value are represented in tenths of seconds.
----------------	--

MOULD HEATING


	<u>By pressing it is possible to enter in the heating mould menu.</u>			
↓				
PAGE	DESCRIPTION	PRESS	VALUE	PRESS
<div>Heatings (0-1) --> 0</div>	Enable (1) or disable (0) mould heatings.		0 or 1	
<div>Heating 1 C 0 --> 0</div>	Connector 1 temperature.		XXX	
<div>Heating 2 C 0 --> 0</div>	Connector 2 temperature.		XXX	
<div>Heating 3 C 0 --> 0</div>	Connector 3 temperature.		XXX	
<div>Heating 4 C 0 --> 0</div>	Connector 4 temperature.		XXX	
<div>Temp.Alarm> <0> Value min.-> <1></div>	Enable (1) or disable (0) low temperature alarm.		0 or 1	
	Low temperature threshold value.		XXX	















UNWINDING























	<p><u>By pressing it is possible to enter in the film unwinding menu.</u></p>
---	---





PAGE	DESCRIPTION	PRESS	VALUE	PRESS
Unwinder 1 (0-1) --> 0	Enable (1) or disable (0) unwinder 1.		0 or 1	
Unw1 Delay 0 Unw1 Time 0	Enable (1) or disable (0) unwinder 1 delay time.		0 or 1	
	Delay time value.		XXX	
Un1 Cent. Pr.> 0 Del. --- > 0	Enable (1) or disable (0) printed top web (unwinder 1).		0 or 1	
	Photocell reading delay time.		XXX	

SEALING CYCLE


	<p>By pressing it is possible to enter in the sealing cycle of the machine.</p>
---	---

PAGE	DESCRIPTION	PRESS	VALUE	PRESS
Sealing (0-1) --> 0	Enable (1) or disable (0) sealing cycle.		0 or 1	
Sealing N (0-1) --> <0>	Enable (1) or disable (0) the only sealing cycle.		0 or 1	
Vacuum (0-1) > <0> Gas (0-1) > <1>	Enable (1) or disable (0) vacuum cycle.		0 or 1	
	Enable (1) or disable (0) gas injection for MAP		0 or 1	
Sealing Delay --> <0>	Delay time between chamber closing and sealing cycle.		XXX	
Sealing time --> <0>	The time during theme the sealing plate is against the bulk.		XXX	
Vacuum --> <1> (mmBar) <0>	The voice mmBar represented the value of the atmospheric pressure. In the voice vacuum must be inserted the value of the residual mmBar respect to the atmospheric pressure that must remain in to the proof chamber.		XXX	



Gas --> <1> (mmBar) <0>	The voice mmBar represented the value of atmospheric pressure. In to the voice gas must be inserted the value of mmBar of gas to insert in to the bulk.		XXX	
Sealing compens Delay -> <0>	Sealing compensation delay.		XXX	
Vacuum close Delay -> <0>	Vacuum close delay.		XXX	
Vacuum open Delay -> <0>	Vacuum open delay.		XXX	
Gas opening Delay -> <0>	Gas open delay.		XXX	
Gas closing Delay -> <0>	Gas close delay.		XXX	
Atmosphere pressure -> <0>	Atmosphere pressure (mmBar).		950	
Opening mould delay --> <0>	Opening mould delay time.		XXX	
Chain start delay --> <0>	Chain start delay time.		XXX	
Vacuum time > <0> Time --> <0>	Enable (1) or disable (0) temporized vacuum cycle, (without trasducer reading).		0 or 1	
	Vacuum valve opening time.		XXX	



Gas time Time --> <0>	Enable (1) or disable (0) temporized gas cycle.		0 or 1	
	Gas valve opening time.		XXX	






PIECES COUNTER






	By pressing it is possible to visualize the counting of the <u>sealed pieces</u> .
---	--

PAGE	DESCRIPTION	PRESS	VALUE	PRESS
-------------	--------------------	--------------	--------------	--------------


Counter pieces Enable > 0	Enable (1) or disable (0) the sealed counter pieces.		0 or 1	
---	--	---	--------	---























Nr. Impression (0-12) <0>	Select number of mould impression.		From 0 to 12	
--	------------------------------------	---	--------------	---













Nr Pieces <0> Up>Reset <0>	Number of piece to product.		0 or 1	
	Counter pieces reset.		XXX	 

Activ. Stop <0> Nr. Cycle <0>	Enable (1) or disable (0) stop function after have reached the setted number of cycles.		0 or 1	
	Number of cycles to execute.		XXX	 


OPTIONAL




















	By pressing it is possible to enable or disable the optionals.
---	--

PAGE	DESCRIPTION	PRESS	VALUE	PRESS
OPTIONAL	Enable (1) or disable (0) the optionals of the machine.		0 or 1	
Denester 0 Tv 0 Ts 0	Enable (1) or disable (0) denster working.		0 or 1	
	Tv= Suckers vacuum time. Ts= Suckers blow time.		XXX	
Snap on lids 0 Tc 0 Rs 0 Ts 0	Enable (1) or disable (0) snap on lids working.		0 or 1	
	Tc= Cycle time. Rs= Blow delay. Ts= Blow time.		XXX	
Doser 1 0 Sgn 0 Tim. 0	Enable (1) or disable (0) doser 1 working.		0 or 1	
	Sgn= Signal time. Tim= Dosing time.		XXX	
Doser 2 0 Sgn 0 Tim. 0	Enable (1) or disable (0) doser 2 working.		0 or 1	
	Sgn= Signal time. Tim= Dosing time.		XXX	
Printer (0-1) 0 Del. 0 Time 0	Enable (1) or disable (0) Printer working.		0 or 1	
	Del= Printer delay. Time= Printer time.		XXX	



Doser (0-1) S1 0 Time > 0 > 0	Enable (1) or disable (0) Doser station 1 working.		0 or 1	
	Time= Doser 1 time > Doser 2 time		XXX	
Doser (0-1) S2 0 Time > 0 > 0	Enable (1) or disable (0) Doser station 2 working.		0 or 1	
	Time= Doser 1 time > Doser 2 time		XXX	
Trays conveyor (0-1) -- > 0	Enable (1) or disable (0) Trays conveyor working.		0 or 1	
Refrigerator (0-1) -- > 0	Enable (1) or disable (0) refrigerator working.		0 or 1	

CHAIN MOVING

	By pressing it is possible to enter in the chain moving menu.
---	---

PAGE	DESCRIPTION	PRESS	VALUE	PRESS
TRAY mm.<0> Enter -> transf.	Insert tray's dimension (mm).		XXX	 
	The time when the activated accessories must send the operating signal.		XXX	 
V/S > <0> (1-22) Enter -> transf.	Insert transport motor speed (RPM default 1-22) first number.		X	
Acc -> <0> (1-14) Enter -> transf.	Acceleration value (1/1000") (1-14).		XXX	 
Pause time --> <0>	Can set the time between the end and the start of a cycle.		XXX	
Product presence Sensor 0 1 1 0	Enable (1) or disable (0) the sensor in entry. Each number correspond to each sensor seen from the entry tunnel.		0 or 1	
Proximity T. -- > 0	Filter time in entry. The proximity has to detect a tray beyond the time fixed here.		X	
Production Cycle/Min <0>	Machine speed (cycle/minute).		XXX	

MANUAL/AUTOMATIC CYCLE

AUTOMATIC	MANUAL	<p><u>By pressing it is possible to choose the AUTOMATIC/MANUAL cycle.</u></p>
		

In manual cycle you can see the following screen page:


MANUAL
OUTPUT FORCING

This menu is protected by password.



It is only for ILPRA S.p.a. TECHNICAL SERVICE use.

For the customer it is possible to use only the following screen pages:

Warning



The process following described is able only with the frontal gate closed.

PAGE	DESCRIPTION	PRESS	VALUE	PRESS
<div style="background-color: yellow; border: 1px solid black; padding: 5px;"> MOULD PASSWORD < 00 > </div>	Enable mould unlock.		12	

Open the frontal gate


Unlock the lateral knob for mould unlocking

Extract the upper chamber



Press the follow button that unlock, and eventually lock after the replacement, the mould of the machine.





Attention





The mould is released and goes downward.

WASHING (0-1) <0>	Enable cleaning function.		0 or 1	
-----------------------------	---------------------------	--	--------	---





When you enable cleaning function the chamber move himself in the sealing position, or rather closed


AUTOMATIC 	MANUAL 	<u>By pressing it is possible to open the chamber.</u>
---	--	--

Warning	
	During the operations previously described, the operator must obligatory wear the protective gloves in order to avoid crashing and cutting risks (the mould is issued with a blade for the film cutting once sealed on the tray).
	Before carrying out these operations, it is necessary to hold for some minutes for the elements cooling.

ALARM MESSAGES

Hereby there are some messages concerning some situations that can cause the immediate stop of the machine (i.e. emergency).
Before restarting the production cycle you have to reset the situation that caused the alarm. The alarm messages are the following:

ALARM	DESCRIPTION	PRESS TO RESET
VACUUM ALARM Enter = RESET	The machine doesn't reach the value of vacuum setted into the PLC.	
GAS ALARM Enter = RESET	The machine doesn't reach the value of gas setted into the PLC.	
LOW. SEAL. SENS Enter = RESET	Missing signal of lower chamber low position.	
UP. SEAL. SENS Enter = RESET	Missing signal of lower chamber up position.	
STATION MISPLACED	The upper chamber is not in correct position.	
THERMAL OVERLOAD	It appears when one of the 2 limit-switches intervenes owing to an high power absorption by the vacuum pump and/or the unwinder motor.	
OPEN GUARDINGS	The frontal gate of the machine is opened.	

UNWINDER PROTECTION	The protection of carry out roller is not in correct position.	
EMERGENCY BUTTON	One of emergency buttons is pressed. Check it.	
Oxygen VALVE Enter = RESET	Oxygen protection valve does not work correctly.	
AIR PRESSURE MISSING	Air missing in compressed air circuit.	
HIGH TEMPER. ALARM	Shown that the mould's temperature remain over the once setted in the alarm tolerance.	
LOW TEMPER. ALARM	Shown that the mould's temperature remain under the once setted in the alarm tolerance.	
PIECES COUNT. STOP	The machine have ended the pieces ordered in the function counting pieces.	
MAINTENANCE MAINTENANCE	Call ILPRA S.p.a. TECHNICAL SERVICE.	

RECIPE

HOW TO STORE A NEW RECIPE





The keyboard can store 6 different production cycles, that can be recall even after a long time without being obliged to set all the data again.

To store a new recipe act as follows:

Warning








This is possible only when the machine is in STOP (STOP button illuminated) and the RESET button not illuminated (without EMERGENCY BUTTON inserted).


<i>PRESS</i>	<i>FUNCTION</i>
	To enter in recipe menu.
	To enter in writing function.
Type the progressive number of the recipe to save.	
	To confirm the recipe number to save.
	To store the recipe in PLC memory.

HOW TO RECALL A RECIPE ALREADY SAVED

To activate a recipe already stored act as follows:

Warning	 <p>This is possible only when the machine is in STOP (STOP button illuminated) and the RESET button not illuminated (without EMERGENCY BUTTON inserted).</p>
----------------	--

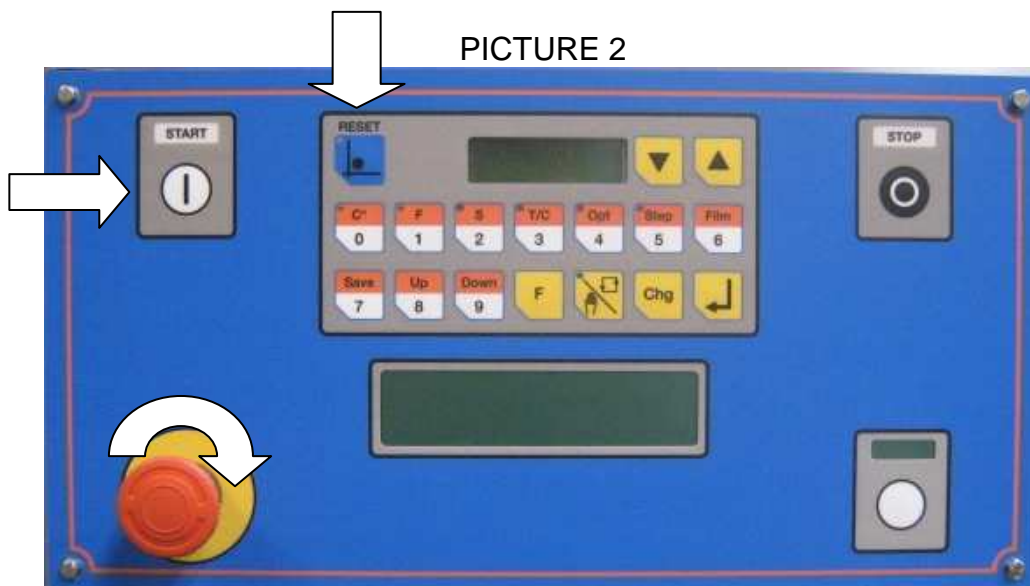
<i>PRESS</i>	<i>FUNCTION</i>
	To enter in recipe menu.
	To enter in writing function.
Type the progressive number of the recipe to get back.	
	To confirm the recipe number to recall.
	To recall stored recipe from PLC memory.

Warning	 <p>If 6 recipes are stored in the keyboard, by adding a new one, there will occur the cancellation of one of the previous recipes.</p>
----------------	--

RE-START AFTER EMERGENCY

Each time the machine stops working because of the pressing of the Emergency button or of an emergency situation not depending from the operator, to start the machine again please act as follows:

1. Reset the problem that caused the emergency situation on the machine.
2. Turn the button into the direction shown by the arrows on the button itself.
3. Press **RESET** button on the keyboard to set to zero each moving part of the machine.
4. Now the machine is ready to start the working cycle again , that will start only by pressing the START button.



The above restarting procedure, except point 2, must be followed consequently to a cycle stoppage due to the intervention:

- Of the safety photocell of the tray presence unit
- Of the microswitch relevant to the opening of the packaging area door.

Warning



Should the stoppage last for long, the sealing plate, on re-starting the machine, could have a temperature lower than the one necessary to seal. In this case, wait some minutes (necessary to reach the set temperature) before restart the cycle.






SEALING TEMPERATURE ADJUSTMENT

Warning



The machine is designed to work with a mould with at the outside 4 fingerprinting. The sealing time must be regulated as much thermic controls as are the mould's fingerprinting.

To adjust the sealing time act as follows:

PRESS	FUNCTION
	To enter in the heating mould menu.
Heatings (0-1) --> 0	This page appears on the display.
	To enter in writing function.
Insert 1 to activate HEATING MOULD function.	
	To maintain the value.
	To move upward the items untill the next page.
Heating 1 C 0 --> 0	This page appears on the display.
The righth number represented the detected temperature, the left one the temperature to set.	
	To enter in writing function.

Insert sealing temperature.



To maintain the value.

Operatig such as previously described for each one of the thermic control to set in relation of the fingerprinting of the mould.

Warning


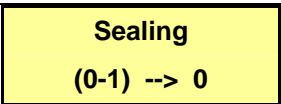



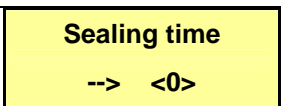




The correct setting of the sealing time is setted in function of the kind of film and the material of the bulk. An errated settino of these value may imply:

- In case of temperature too low, the errated execution of the sealing.
- In case of temperature too high, the film's fusion and, in some cases, of the bulk too.

SEALING TIME ADJUSTMENT

To adjust the sealing time act as follows:

PRESS	FUNCTION
	To enter in sealing menu.
	This page appears on the display.
	To enter in writing function.
Insert 1 to activate the SEALING function.	
	To maintain the value.
	To move upward the items untill the following page.
	This page appears on the display.
	To enter in writing function.
Insert sealing time.	
	To maintain the value.

Warning










Sealing time and temperature are 2 inversely proportional parameters. They depend on the kind of materials used (trays and film) and their compatibility. By increasing the sealing time you have to decrease the temperature and vice-versa.


WORKING CYCLES

To activate the various kind of packaging, follow the instructions:


ONLY SEALING (STANDARD PACKAGING)

<i>PRESS</i>	<i>FUNCTION</i>
	To enter in the heating mould menu.
Heatings (0-1) --> 0	This page appears on the display.
	To enter in writing function.
Insert 1 to activate HEATING MOULD function.	
	To maintain the value.
	To enter in sealing menu.
Sealing (0-1) --> 0	This page appears on the display.
	To enter in writing function.
Insert 1 to activate the SEALING function.	
	To maintain the value.
	To move upward the items untill the following page.

	Sealing N (0-1) --> <0>	This page appears on the display.
--	---	-----------------------------------

	To enter in writing function.
---	-------------------------------

Insert 1 to activate the ONLY SEALING function.

	To maintain the value.
---	------------------------








Automatically the function VACUUM goes to zero value.


Please check the following other functions:

SKIN CYCLE, GAS. The two of them must be setted at zero value.


VACUUM PACKAGING (OPTION)

Turn the handle of tap in order to be connected to the air pipe.

PRESS		FUNCTION
		To enter in the heating mould menu.
Heatings (0-1) --> 0		This page appears on the display.
		To enter in writing function.
Insert 1 to activate HEATING MOULD function.		
		To maintain the value.
		To enter in sealing menu.
Sealing (0-1) --> 0		This page appears on the display.
		To enter in writing function.
Insert 1 to activate the SEALING function.		
		To maintain the value.
		To move upward the items untill the following page.
Vac. (0-1) > <0> Gas (0-1) > <1>		This page appears on the display.

	To enter in writing function.
---	-------------------------------

Insert 1 to activate VACUUM function.

	To maintain the value.
---	------------------------

Automatically the function SEALING N goes to zero value

If is required to use the OVERSKIN function go to the next page and insert the value 1 in the SKIN cycle item.








Note




The OVERSKIN function is OPTIONAL.


VACUUM/GAS PACKAGING (OPTION)


Turn the handle of tap in order to be connected to the gas pipe.

PRESS		FUNCTION
		To enter in the heating mould menu.
Heatings (0-1) --> 0		This page appears on the display.
		To enter in writing function.
Insert 1 to activate HEATING MOULD function.		
		To maintain the value.
		To enter in sealing menu.
Sealing (0-1) --> 0		This page appears on the display.
		To enter in writing function.
Insert 1 to activate the SEALING function.		
		To maintain the value.
		To move upward the items untill the following page.
Vac. (0-1) > <0> Gas (0-1) > <1>		This page appears on the display.


	To enter in writing function.
---	-------------------------------

Insert 1 to activate VACUUM function.

	To maintain the value.
---	------------------------

	To access at the writing function of the keyboard.
---	--

Insert 1 to activate GAS function.



	To maintain the value.
---	------------------------

PRELIMINARY OPERATIONS TO THE CYCLE START

- Turn the main switch to the position 1 , to give electric supply to the electric box.
- Verify that all the emergencies are unlocked (in the negative unlock them).
- Press START to supply the auxiliaries.
- Recall the desired menu by means of the programming keyboard.




AUTOMATIC CYCLE

After the above listed operations, to perform the automatic cycle act as follows:

<i>PRESS</i>	<i>FUNCTION</i>
	Enable AUTOMATIC cycle (LED illuminated).
	To start transport chain.


Now the operator can start loading the trays to be packaged.

At this point the cycle will go on automatically.


Warnings	
	At any time, to stop the working cycle, press the emergency button. The button is equipped with retaining device; for this reason each time you stop the cycle to go back to the original position you have to turn the button clockwise. The cycle will start again only the re-start procedure.
	Don't remove the protections when the machine is running.
	The opening keys of the protections must be kept by the machine responsible only. To leave the key inside the lock may involve the risk that unauthorized persons get in contact with dangerous elements.

MANUAL CYCLE

After carrying out the preliminary operations, perform the manual cycle as follows:

<i>PRESS</i>	<i>FUNCTION</i>
	Enable MANUAL cycle (LED off).

The operator can load the trays on the working surface.

	At this point the cycle will perform the following working sequences at each START pressing.
---	---




Transfer of the trays up to the tray presence unit.

Transfer and stop of the trays near the chamber.

Chamber closing and performing of the set kind of packaging.

Chamber opening and tray descent.

Transfer of the trays to the ejection area.

Warnings	
	At any time, to stop the working cycle, press the emergency button. The button is equipped with retaining device; for this reason each time you stop the cycle to go back to the original position you have to turn the button clockwise. The cycle will start again only the re-start procedure.
	Don't remove the protections when the machine is running.
	The opening keys of the protections must be kept by the machine responsible only. To leave the key inside the lock may involve the risk that unauthorized persons get in contact with dangerous elements.

WORKING CYCLE STOP

The cycle stop can occur in two different ways:

1. Controlled stop, by pressing the STOP button on the control panel and on the back side of the machine
2. Emergency stop, by pressing the EMERGENCY button on the control panel and on the back side

In the former case to start working again you have to press START .

In the latter case you have to perform the re-start.

At the end of the working day it is advisable to stop the machine by pressing STOP ; then turn off the main switch (position 0).

.





WASHING

Warning



This is possible only when the machine is in STOP (STOP button illuminated).

To clean the machine act as:

PRESS		FUNCTION
		Enable MANUAL cycle (LED off).
	MANUAL OUTPUT FORCING	This page appears on the display.
		To move upward the items untill the following page.
	WASHING (0-1) <0>	This page appears on the display.
		To enter in writing function.
Insert 1 to activate WASHING function.		
		To maintain the value.

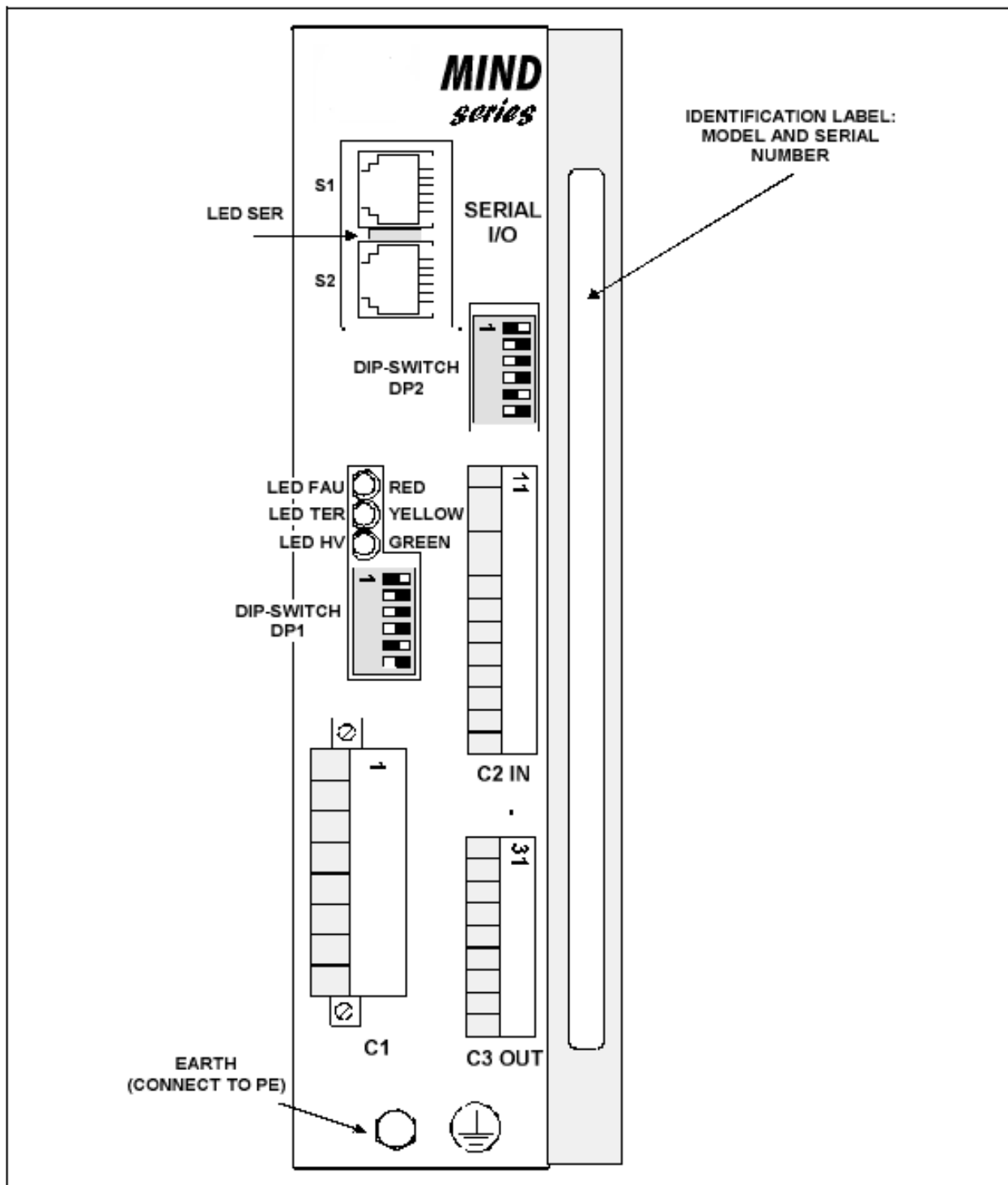
Open the frontal door and wash the interest part.

Close the frontal door, at the end of the washing, and insert the "0" value.

Press START to start work cycle.

DIAGNOSTIC MOTOR CARD

The following picture shows the position of DIP-SWITCHES, signalling LEDs, connectors and labels in MIND S and MIND T series driver.



The following list and table shows the meaning of the signalling LEDs existing on the drive:

LED HV: ON = supply voltage inside correct operating range.
OFF = drive not supplied or supply voltage out of the correct range (in the second case you have also LED FAU ON).

LED TER: ON = drive placed in no-working state by thermal protection (in this case LED FAU is ON).
OFF = heatsink temperature in working range.

LED FAU: ON = drive placed in no-working state by one of the following protection:
a - Thermal protection if LED TER is ON.
b - Max or Min supply voltage if LED HV is OFF.
c - Short circuit or wrong motor connection if LED HV is ON and LED TER is OFF.
OFF = drive in working state if LED HV is ON.

TABLE			
LED HV	LED TER	LED FAU	DRIVE CONDITION
OFF	OFF	OFF	Drive not supplied or fuse broken
OFF	OFF	ON	Wrong supply voltage
ON	ON	ON	Thermal protection
ON	OFF	ON	Short circuit at motor output or drive broken

LED SER: ON = message on serial line.
OFF = no message on serial line.

NOTE: OFF = LED switched off.
ON = LED switched on.

All protections are self-resetting when the intervention causes disappear.

SOFTWARE UPDATING

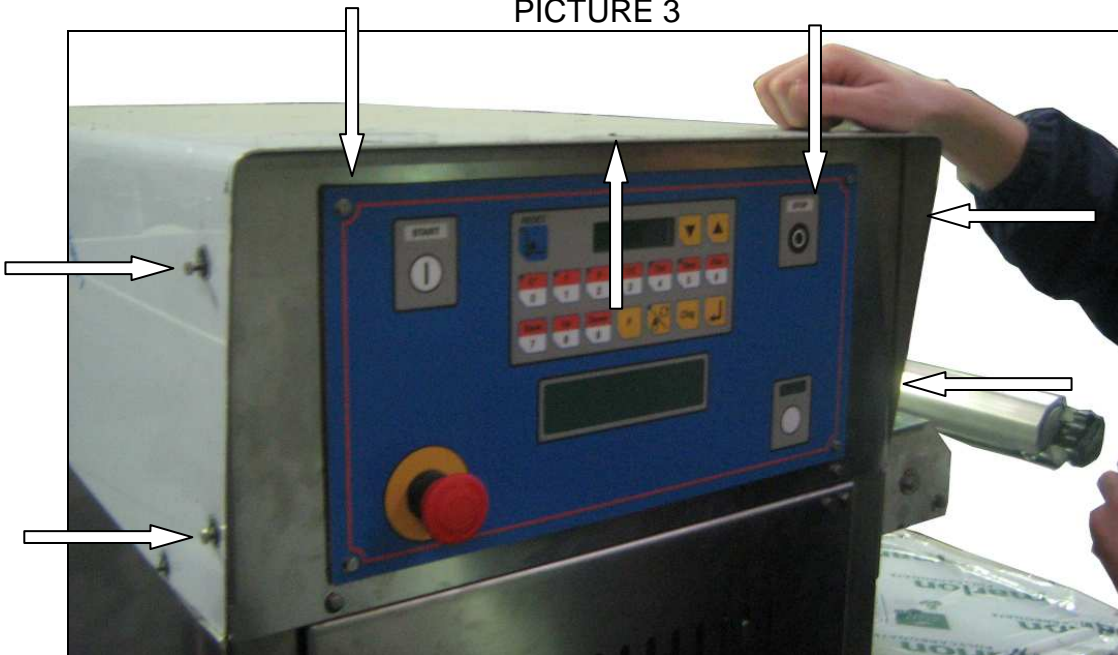
Attention



The operations hereafter have to be done when the machine does not work.

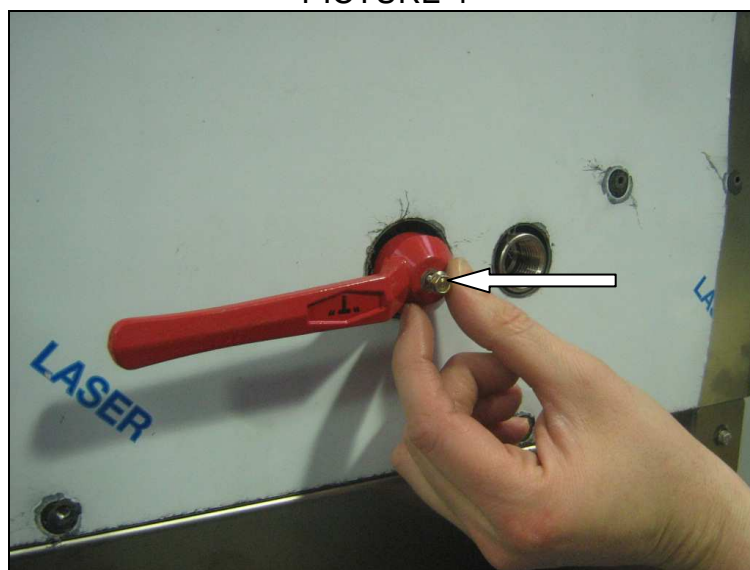
- Unscrew the fixing screws of the protection carter (Pict. 3)

PICTURE 3



- Unscrew the fixing screws of the gas valve opening knob (Pict. 4) and draw it out.

PICTURE 4



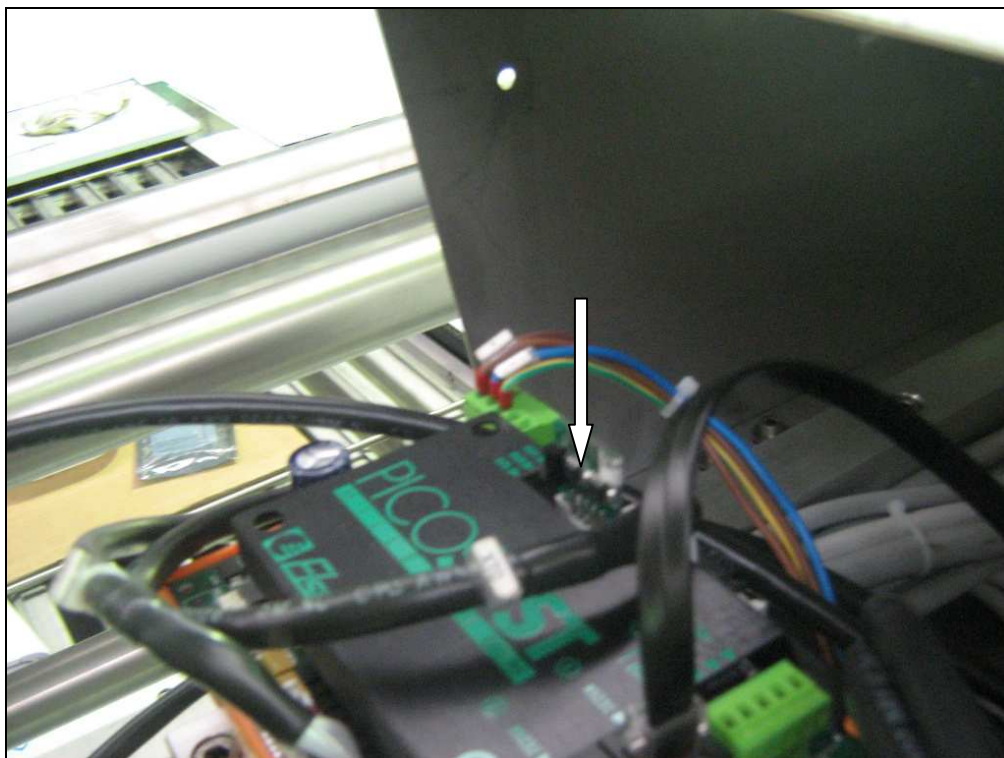
- Move back the carter as shown in Picture 5.

PICTURE 5



- Insert the updating schedule in the seat indicated in Picture 6.

PICTURE 6



- Switch on the machine through the general switch.
- Wait the automatic updating of the software (about 5 minutes).
- Switch off the machine through the general switch.
- Draw out the schedule.
- Assemble again the carter by doing the operations described above in the opposite way.
- At the first input push the EMERGENCY button and then push RESET button in order to reset some software problems.

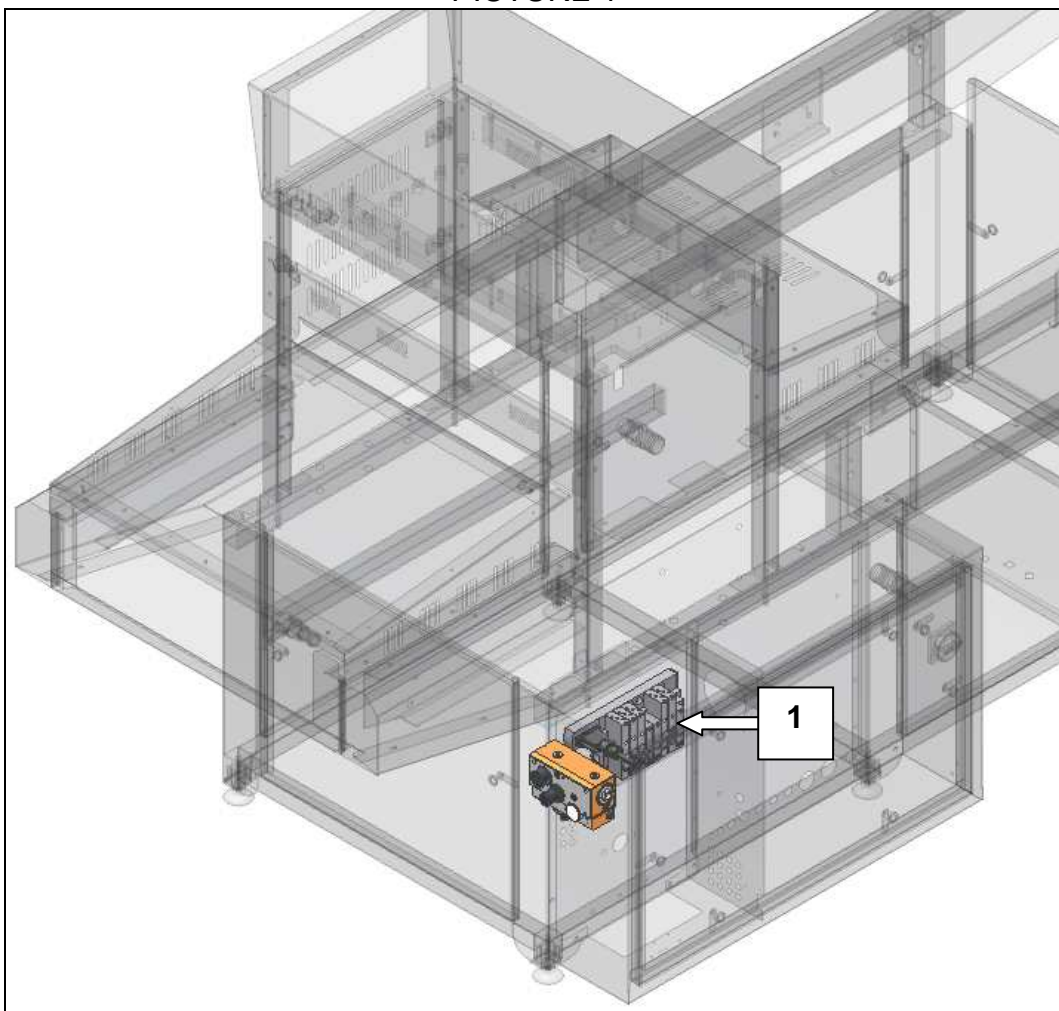
PGG2-00730A PNEUMATIC PLANT 2008

DESCRIPTION

The pneumatic system runs the working of some parts of the machine like the mould blocking, like the opening/closing of the vacuum and gas valve, and some possible accessories.

The main system of the control of the pneumatic system is the FRL group. The opening/closing of the vacuum/gas circuit valves and mould unlocking are managed by the electric-valves inside the valves-battery in the transmission box (1 – Pict. 1).

PICTURE 1



CONNECTION

Connect the F.R.L. group (Filter/Reducer) of the machine to a line supplying dry and clean air, at a constant pressure of at least 6 bars.

Note



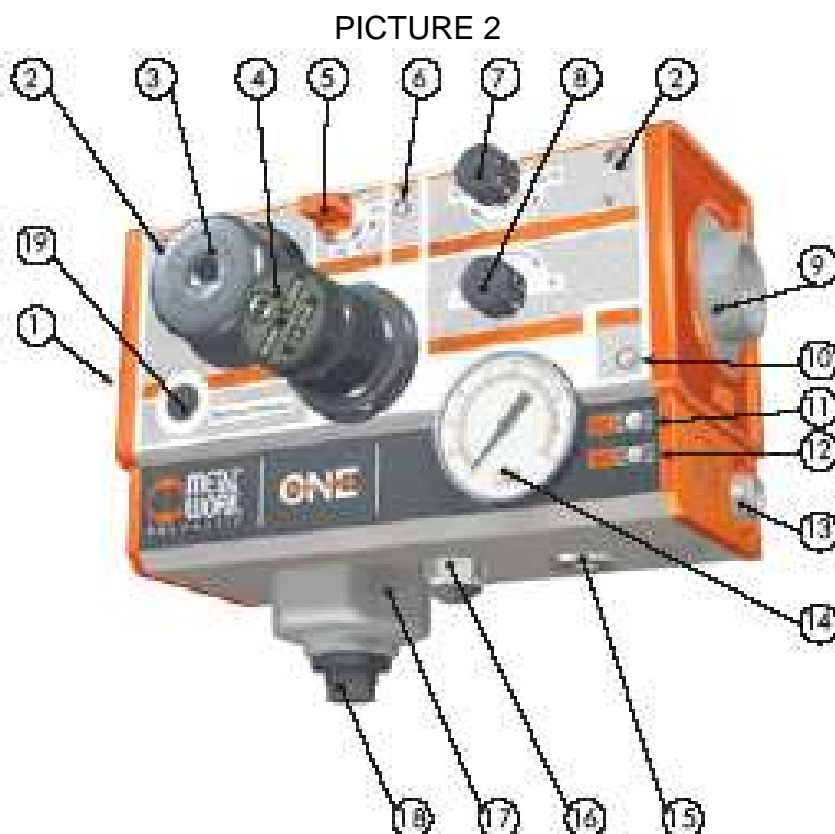
To achieve a good running and a less wear and tear of the pneumatic installation, we advise to provide feeding air according to the following table:

QUALITY CLASS	DIRT PARTICLES DIMENSIONS (MICRON)	TEMPERATURE WHERE THERE IS WATER (°C -7BAR)	PRESENCE OF OIL (MG/M ³)
1	0.1	- 70	0.01
2	1	- 40	0.1
3	5	- 20	1.0
4	40	+ 3	5
5	--	+ 7	25
6	--	+ 10	--

After the connections, check their functionality as follows: be sure that the manometer of the FRL group indicates 6 bars pressure, then check that there are no leaks in the system caused by damages occurred during the transport.

FILTER REDUCER GROUP DESCRIPTION

1. Air intake, with swivel threaded port
2. Fixing hole
3. Access to filter cartridge
4. Pressure regulation
5. Shut-off valve (manual)
6. Manual override (shut-off valve electrical)
7. Soft start valve regulation
8. Switching pressure regulation
9. Air outlet, with swivel threaded port
10. LED signalling unit ON
11. LED signalling pressure below the value set on pressure switch
12. LED signalling pressure over the value set on pressure switch
13. 5-pin M12x1 electrical connector
14. Pressure gauge
15. 1/4" air intake. Another regulated air intake and a filtered non-regulated air intake are situated on the top
16. Air exhaust with a G1/4" silencer
17. Condensate tank
18. Condensate drain with G1/8" thread (for RA only)
19. Clogged filter signal



FILTER CHANGE

PICTURE 3



- If the filter gets so clogged up that it causes an excessive drop in pressure as the air passes through, the optical filter blockage indicator will project (A – Pict. 3) to indicate that the filter cartridge must be replaced.
- The cartridge can be replaced by unscrewing a plug at the front. This system is functional and, unlike conventional filters, does not require manoeuvring space below the unit.
- An automatic stop on-off valve is incorporated in the unit: when the filter plug is unscrewed, the valve closes automatically. This means there is not need to a tap upstream and there is no risk of the plug being ejected violently.

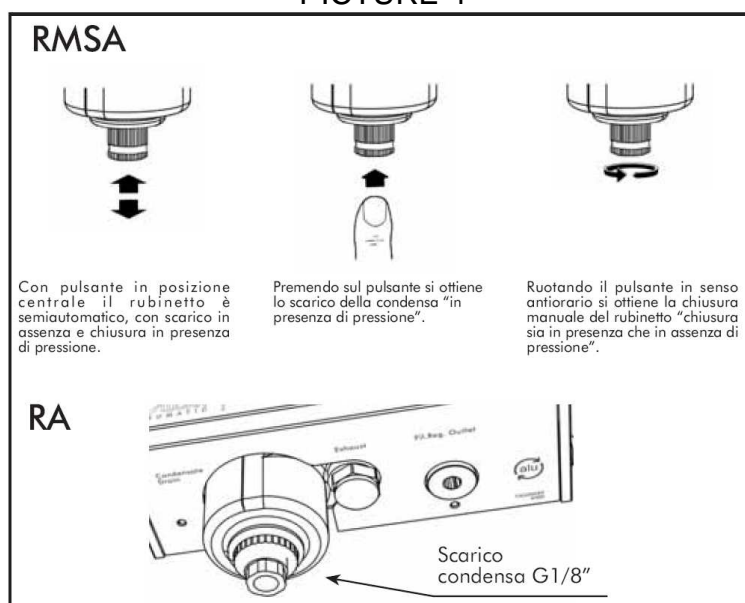
CONDENSATE DRAIN

The condensate drain is located downstream of the filter and thus uses cleaner air. This prevents the known problem of air leaks due to the deposit of dirt on the condensate discharge valve.

You can request ONE with two types of condensate drain:

- Semi-automatic, type RMSA.
- Automatic of the floating type RA.

PICTURE 4



An efficient internal system separates most of the water condensate in the compressed air and collects it in a clear bowl at the bottom of the unit. This water has to be drained out. If an RMSA device is present, the compressed air supply must be switched off periodically to drain out the condensate or, alternatively, the ring nut must be pushed upwards by hand. If there is an automatic drain, the condensate is drained out automatically whenever the level in the bowl reaches the point of intervention of the float valve. If you wish to drain the water out elsewhere, attach a 1/8" pipe and fitting.

Warning

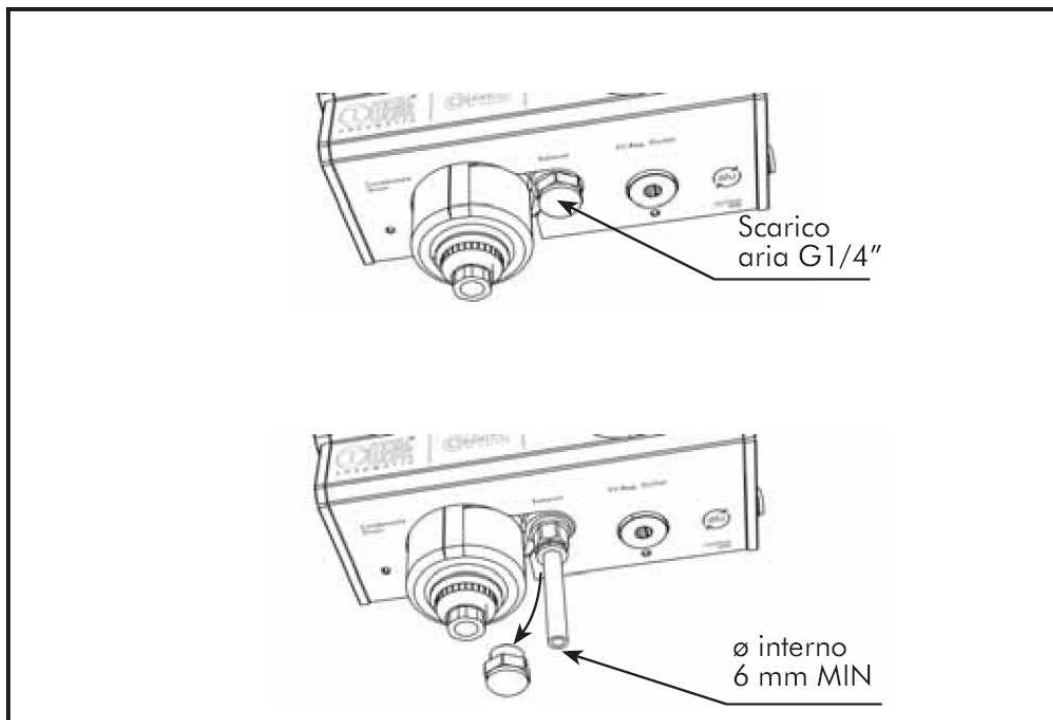


If the diameter of the pipe is too small, or there are bends or bottlenecks, it is difficult for the water to flow through it and the automatic drain does not work properly.

SINGLE AIR EXHAUST

The air in the circuit is relieved via one outlet situated below the unit and fitted with silencer. If you want to convey air relief to prevent the emission of polluted air into the atmosphere, you can replace the silencer and install a fitting. (a pipe with a diameter of at least 6 mm is recommended) Next to the air outlet there is the condensate drain, which in the RA version can be connected to the thread with a 1/8" fitting.

PICTURE 5



THREADED PORTS

- The threaded ports at the air intake and outlet are the swivel type to facilitate coupling with the supply and delivery pipes. In this way, the unit can be mounted or removed without dismantling the pipes.
- A range of 5 different threads, 1/4", 3/8", 1/2", 3/4" and 1" is also available.
- The thread for the supply pipe may differ from that of the delivery one.

PICTURE 6



PRESSURE REGULATION

Operate as follows:

- Turn the knob (Pict. 7) until you read the desired value on the gauge.
- Then press the knob to lock it.

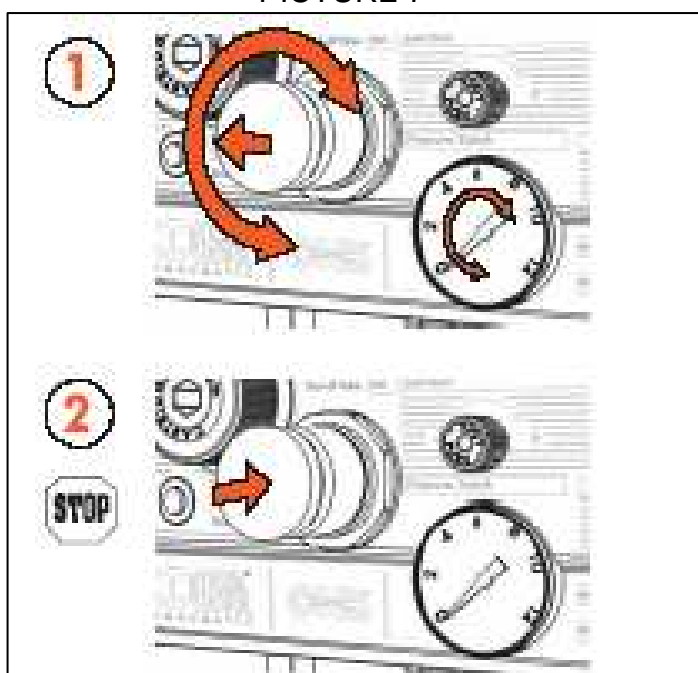
Controlled air relief is provided to improve the pressure regulation.

Nota



Pressure in standard regulators must always be set upwards.

PICTURE 7



V3V MANUAL VALVE

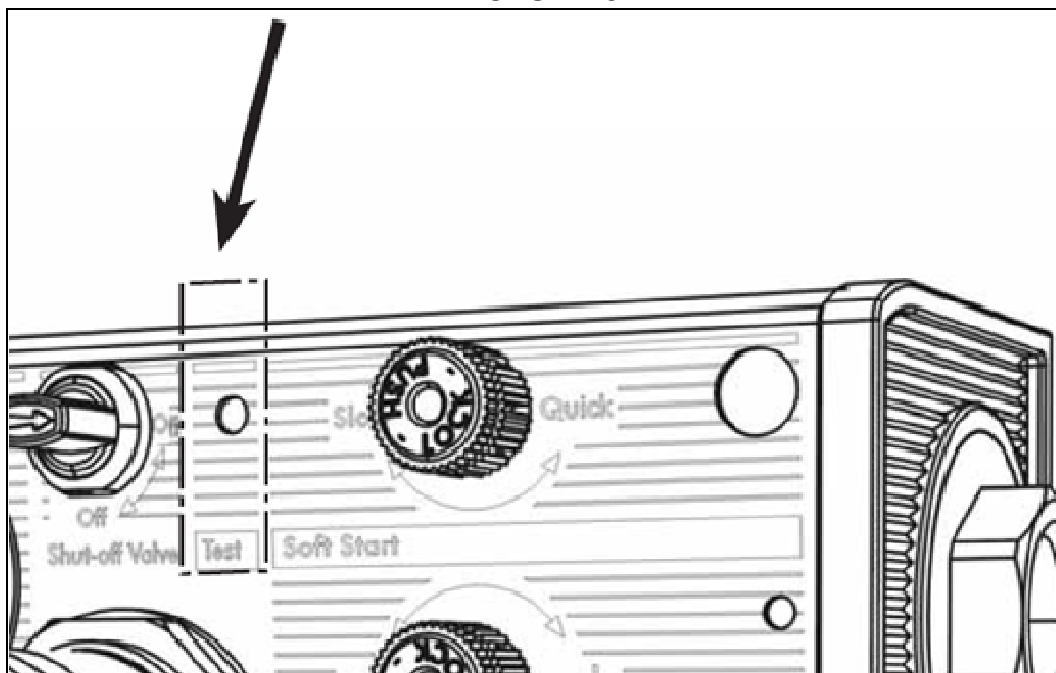
When the valve is in the On position, the air supply is enabled. When the valve is in the off position, the air supply is shut off and the air downstream is discharged. If the V3V valve is the padlock type, you can attach the padlock when the valve is on OFF by keeping pressed “test” button (Pict. 8).

Note



If there is also an electric V3V or APR, the air supply is only enabled if the power supply is on .

PICTURE 8

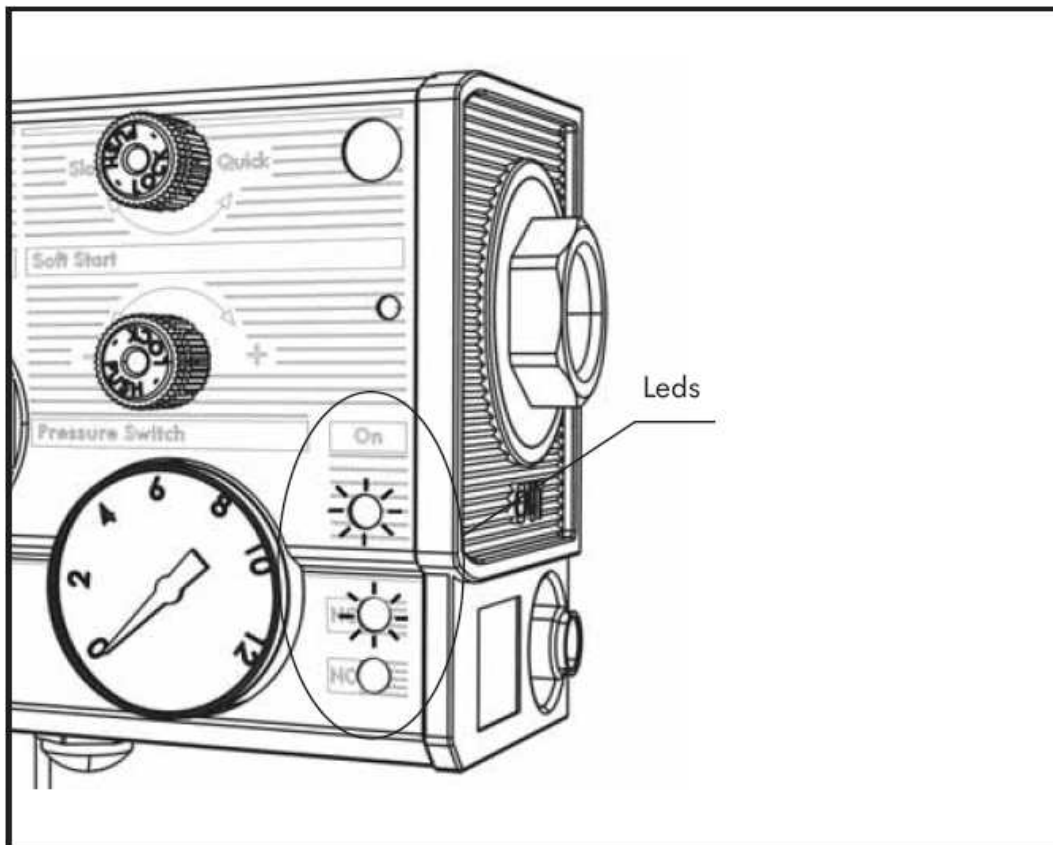


LEDS

The ONE electrical unit always has three LEDs, but only those associated with the current functions are active.

- ON: GREEN LED. On if the electric V3V valve or the APR is powered on.
- NC: RED LED. Pressure switch's normally-closed contact. It is on if the actual pressure is lower than the pressure switch setting and if an electrical circuit is connected.
- NO: YELLOW LED. Pressure switch's normally-open contact. It is on if the actual pressure is higher than the pressure switch setting and if an electrical circuit is connected.

PICTURE 9



MAINTENANCE

The only routine maintenance required is replacement of the filter cartridge. Refer to the section entitled “**FILTER**” for instructions. The unit may sometimes require extraordinary maintenance. A few examples and possible remedies are given below.

REGULATOR

PROBLEM	CAUSE	REMEDY
1.1 - The regulator discharges air from the relief valve.	* Downstream pressure higher than set pressure.	* The air relief stops when the pressures are balanced.
1.2 - The regulator discharges air from its relieving.	* The controlled relief of the pilot regulator lets a quantity of audible air through.	* It's not defect, but it's normal for these pressure regulators.
1.3 - The regulator does not reach the required pressure.	* Upstream pressure lower than set pressure. * Rated pressure too low. * Excessive air intake.	* Regulate pressure upstream. * Check the rating of the regulator. * Check the pressure/flow rate charts for the regulator in the catalogue.
1.4 - Fine regulation not possible.	* Rated pressure too high.	* To increase sensitivity, use a regulator with a rated pressure as close as possible to the desired value.
1.5 - After an air intake, the pressure is lower than the preset value.	* Regulator setting in descending order (from high to low pressure).	* Pressure must be set in ascending order (from low to high pressure).
1.6 - The knob does not rotate.	* Knob in locked position.	* Release the knob by pulling it upwards and then regulate.

FILTER

PROBLEM	CAUSE	REMEDY
2.1- The filter equipped with condensate drain RMSA type, doesn't release the accumulated condensate.	<ul style="list-style-type: none"> * RMSA tap closed. * Filter continuously pressurised. 	<ul style="list-style-type: none"> * Turn tap anticlockwise to open it. * Press the tap to drain out condensate by hand.
2.2 - Decreased flow rate.	<ul style="list-style-type: none"> * Filter clogged. 	<ul style="list-style-type: none"> * Replace the filtering element.

PRESSURE SWITCH

PROBLEM	CAUSE	REMEDY
3.1 - The pressure switch intervenes too often.	<ul style="list-style-type: none"> * The setting value is too close to the regulated. 	<ul style="list-style-type: none"> * Lower the intervention point of the pressure switch.
3.2 - The knob does not rotate.	<ul style="list-style-type: none"> * Knob in locked position. 	<ul style="list-style-type: none"> * Release the knob by pulling it upwards and then regulate.

SHUT-OFF VALVE (V3V)

PROBLEM	CAUSE	REMEDY
4.1 - No air passes downstream.	<ul style="list-style-type: none"> * In the manual version the knob is in OFF position. * No pneumatic control in the pneumatic version. 	<ul style="list-style-type: none"> * Put the knob on the ON position. * Check the presence of the pneumatic control.
4.2 - The air gets continuously released.	<ul style="list-style-type: none"> * The manual V3V is in OFF position. 	<ul style="list-style-type: none"> * Put the knob on the ON position.

SOFT START VALVE (APR)

PROBLEM	CAUSE	REMEDY
5.1 - No air passes downstream.	<ul style="list-style-type: none"> * Regulation knob fully closed. * No electrical control in the electro pneumatic version. 	<ul style="list-style-type: none"> * Open the needles as required. * Check that the electric coil is energised.
5.2 - The soft start valve does not start (immediate full-port passage of air).	<ul style="list-style-type: none"> * Regulation knob fully open. 	<ul style="list-style-type: none"> * Adjust the needles as required.
5.3 - The knob does not rotate.	<ul style="list-style-type: none"> * Knob in locked position. 	<ul style="list-style-type: none"> * Release the knob by pulling it upwards and then regulate.

Warning



Maintenance must be carried out by properly qualified and trained personnel. Before doing anything, switch off the compressed air supply and cut off the power supply by unscrewing and removing the connector ring nut.

PGG3-00008A PRINTED TOP WEB

DESCRIPTION

At customer request it is possible to have this option to be used in case on the film of the customer there is an image or a particular label.

The kit to carry out the printed top web is composed by a series of components to be added to the unwinder group on which a photocell is fitted which detects, during the film unwinding, the passage of the marks printed on the film, identifying the step.

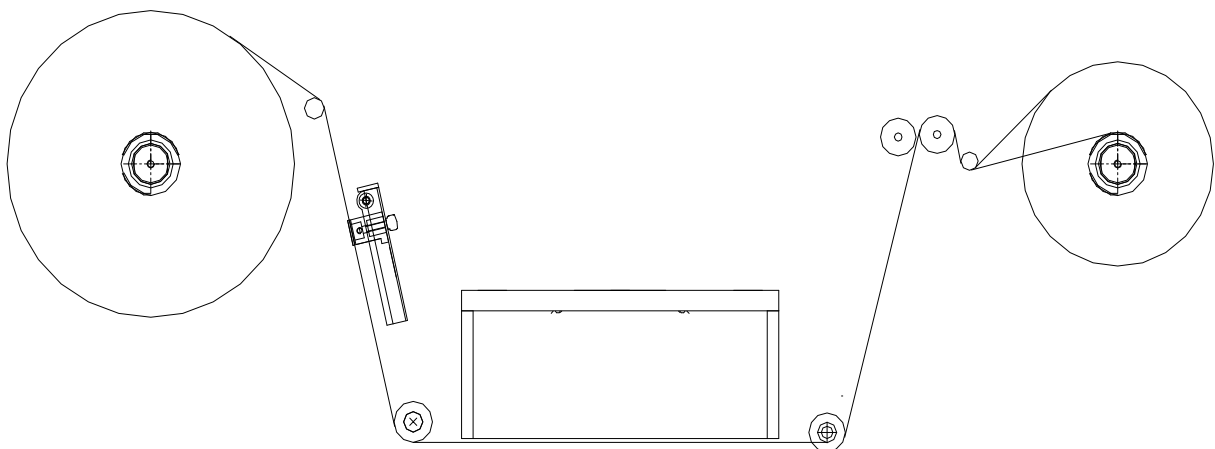
The centering of the image is realised by means of the marks printed on both the sides of the film (in fact, the film must be predisposed for the use of this system). The marks are detected by the photocell which stops, by means of the microprocessor, the motor of the unwinder roller. The passage from the normal unwinding system to the printed top web system is carried out by the PLC setting to 1 the value corresponding to this item (see control panel section). In order to return to the normal system it is necessary to set the value to 0.

The kit of the printed top web is composed by the following parts:

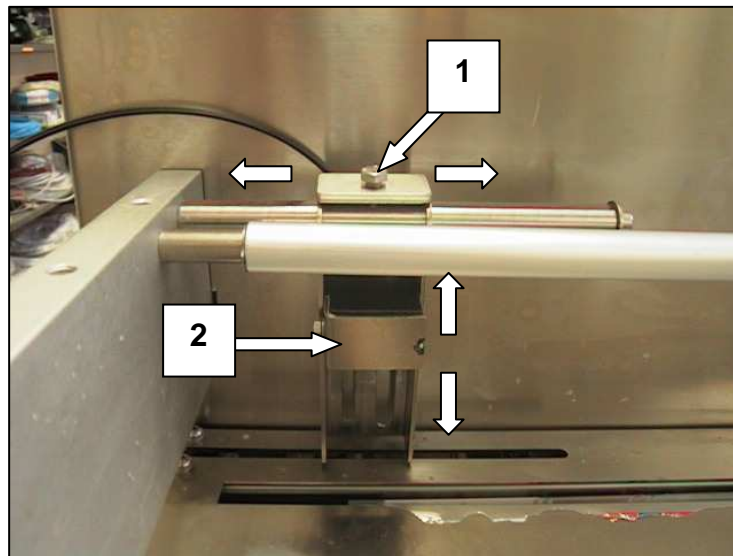
- Optical fibre.
- Photocell.

The optical fibre is placed on the film before its entry on the sealing station and it has the duty to read the marks printed on the film which allow to start and stop the film unwinding.

PICTURE 1



PICTURE 1



The optical fiber is fitted on a proper holder, provided with a slot which allows the use of different film bands. In order to carry out this operation, it is necessary to unloose the locking nut (part. 1) move the optical fiber along the slot and fixing it in the desired position by tightening the nut.

Moving the optical fiber in vertical way it is determined a time delay in the reading of the mark: it is possible to adjust this time also electronically by means of the program of the machine. It is possible to use both the two delay systems in a combined way: it is possible to carry out an electronic adjustment if the mechanical one, due to the position of the photocell, is not enough. In case you desire to use the delay time in the mechanical way, it is necessary to set to 0 the relevant item into the program.

The film must pass through the guide of which the optical fiber is equipped with (part. 2).

The duty of the photocell is to detect the presence of the mark on the film: in fact, the mark does not allow the passage of the light which normally circulates into the optical fiber. The optical fiber is connected to a photocell which detects the light variation. This variation is commuted by the photocell in an impulse which controls the film unwinding motor.

PGG3-00123A SEALING MOULD PROGAS

DESCRIPTION

The mould is the unit which makes the film sealing and cutting. It is composed of:

- Sealing plate, inside which is the heating element.
- Cutting blade.
- Press-film bars, which have the task to keep the film tighten on the tray.
- Tray carrier with Progas connection block (1 – Pict. 1).
- Lower chamber fillers.

The temperature of sealing plates has to be adjusted as per instructions about control panel functions.

PICTURE 1



SIZE CHANGE

Warning



When you change the size the machine must be switched on. For this reason the operation can be carried out only by the machine responsible or by skilled staff, that is informed about the possible risks.

When the Customer needs to use trays having different shapes and dimensions, it is necessary to fit on the machine a mould conveniently shaped.

At this aim, you have to replace the following machine parts:

- MOULD.
- PLATE SUPPORTING THE TRAY.
- TRAY CARRIER.

After changing the size, carry out the following adjustments:

- ADJUSTMENT OF TRANSFERRING GUIDES.
- ADJUSTMENT OF TIMES AND TEMPERATURES.
- ADJUSTMENT OF THE ACCESSORIES.

Warnings



If the password is correct, please remember that by pressing again the button RESET the mould is immediately released and, consequently, the chamber falls. Please be ready to take the part before its falling.



After inserting the right password, please remember that that each time you press the button RESET the mould opens and closes alternatively.



During the above described operations, the operator must wear protective gloves to avoid any risk of crashing and cutting.



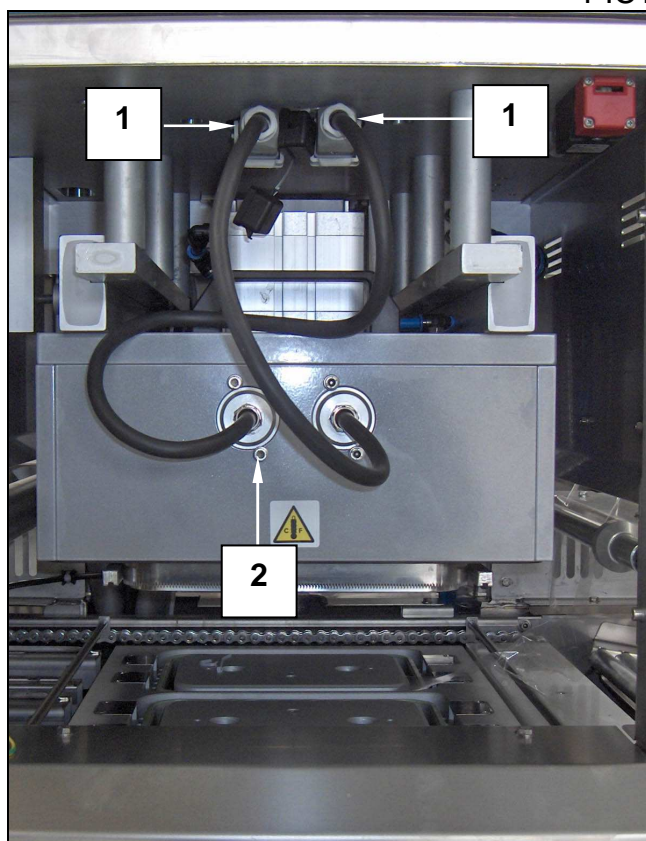
Before making these operations wait some minutes till when the heated elements reach a temperature near to the environmental one

MOULD CHANGE

To change the mould act as follows:

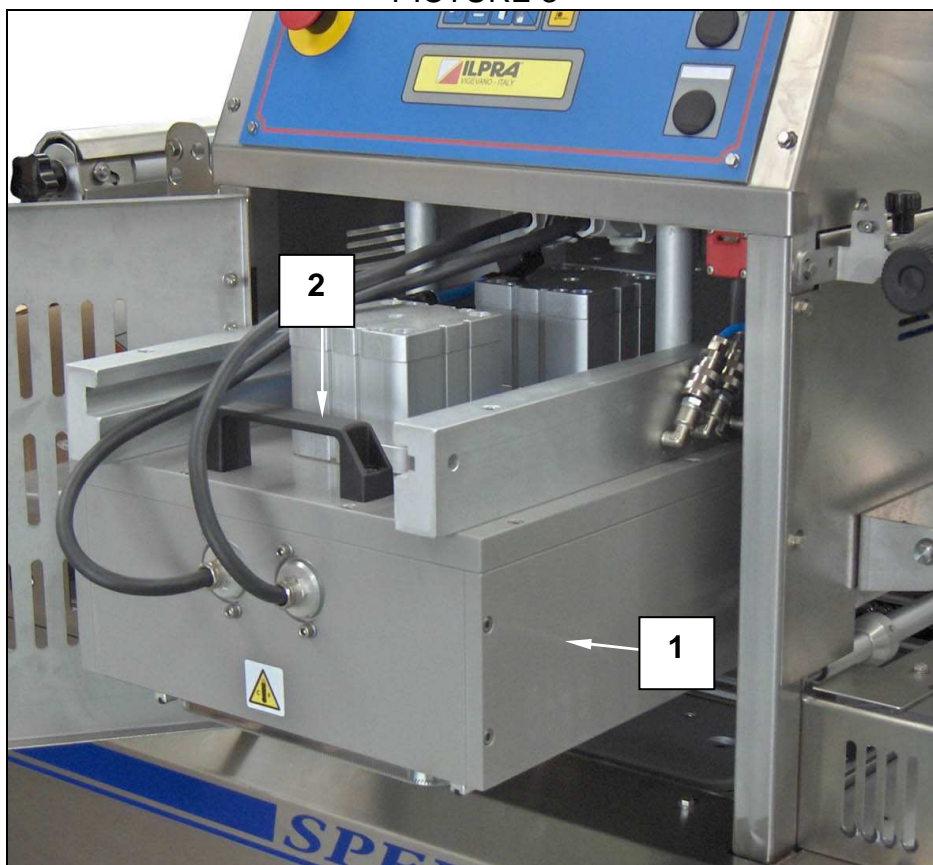
1. Open the front door disconnect the feeding cable connector of the heating element.
2. Unscrew the indicated screws of the fastening block (Pict. 2).
3. Release the chamber by unscrewing the knob at the left side of the sealing unit.



PICTURE 2



4. Take out the upper chamber, making it slide on the side guides till when it stops against the proper retainers.

PICTURE 3






AUTOMATIC 	MANUAL 	<u>By pressing it is possible to choose the AUTOMATIC/MANUAL cycle.</u>
---	--	---

In manual cycle you can see the following screen page:


MANUAL
OUTPUT FORCING


This menu is protected by password.
It is only for ILPRA S.p.a. TECHNICAL SERVICE use.



PAGE	DESCRIPTION	PRESS	VALUE	PRESS
<div>MOULD</div> <div>PASSWORD < 00 ></div>	Enable mould unlock.		12	

Press the follow button that unlock, and eventually lock after the replacement, the mould of the machine.	
---	---



Take the mould out of the chamber and replace it with the new size.

Warning	
	After this operation the mould is released and goes downward.

Note	
	If EMERGENCY button is pressed you have to re-start the machine as described in RE-START AFTER EMERGENCY paragraph of the control panel instructions.

Warning	
	During the operations previously described, the operator must obligatory wear the protective gloves in order to avoid crashing and cutting risks (the mould is issued with a blade for the film cutting once sealed on the tray).
	Before carrying out these operations, it is necessary to hold for some minutes for the elements cooling.

DIES AND PLATES DISASSEMBLING

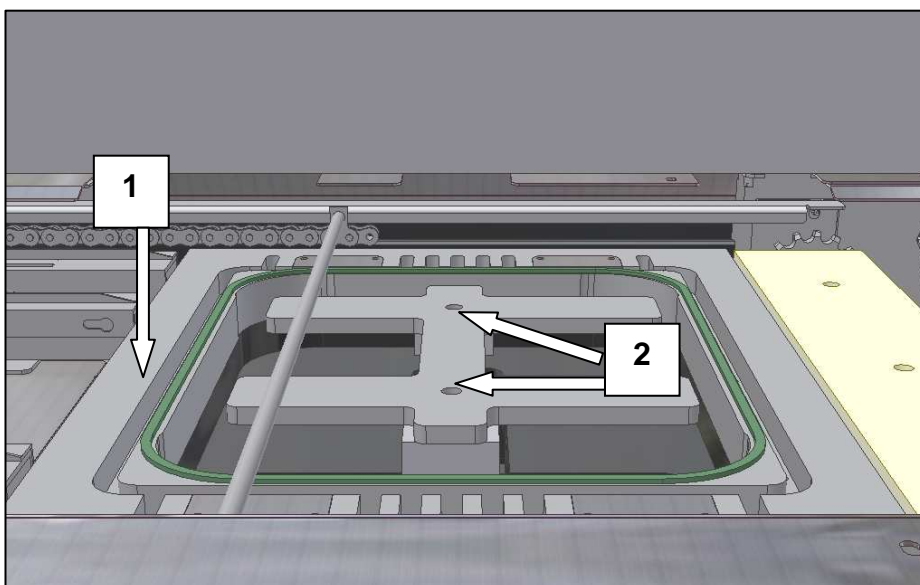
Warning 	During the operations previously described, the operator must obligatory wear the protective gloves in order to avoid crashing and cutting risks (the mould is issued with a blade for the film cutting once sealed on the tray).
	Before carrying out these operations, it is necessary to hold for some minutes for the elements cooling.




A change of the type of trays to be packaged needs, besides to the change of the mould, also of the dies and of the plates placed on the lower chamber.

For these operations, please proceed as follows:

1. Open the frontal door of the machine which protects the mould.
2. Pull the die out by hands (1), which is simply leant on the lower chamber.
3. Remove, by means of a proper tool, the fastening screws (2) of the plates placed inside the lower chamber.
4. Pull the plates out by hands and proceed with the assembling of the new ones.
5. Position the new die on the chamber and fit, by fixing them, the new plates.
6. Close the frontal cover of the machine.
7. Proceed with the procedure of the machine resetting.




PICTURE 4



Warnings	
	<p>The operations described in this paragraph will be carried out ONLY by authorized and qualified staff or by technicians of the assistance service of the Building House.</p>
	<p>The operations described in this paragraph WILL BE DONE with the machine in stop phase and the electric connection switch has to be separated from the feed and the connecting pipe has to be disconnected from the rapid coupling of filter reduction group.</p>
	<p>During the substitution operation it is COMPULSORY to use devices of individual protection.</p>

SPECIAL MAINTENANCE

A Correct maintenance represents a fundamental factor for a longer duration of the machine in operation condition and of optimal efficiency. The machine will be then exposed to constant check and maintenance in order to preserve the technical, productive and security conditions which remain unaltered long-term; they are predisposed by the Builder.

Warnings	
	<p>Special modifications and maintenances that differ from the maintenance and substitution maintenances that are illustrated in this chapter, have not be done without previous consultation with the I.L.P.R.A. S.p.A. Firm, that will give or not its own approval according to the situations, or it will propose the assistance of its own qualified technician. Remember that wrong assistances can provoke anomalous functioning conditions, they can cause damages to the machine and they can be source of risks for the staff attached to it. We refuse then any responsibility, as far as it could derive from the above-mentioned operations.</p>
	<p>All the maintenance, substitution and regulation assistances that are in this chapter will be carried out by expert and qualified staff and the machine will be disconnected from the electric feed.</p>
	<p>During the maintenance operations the system users will wear protection gloves and, if it is necessary, also retainers in order to avoid risks caused by manipulated elements.</p>

SEALING MOULD MAINTENANCE

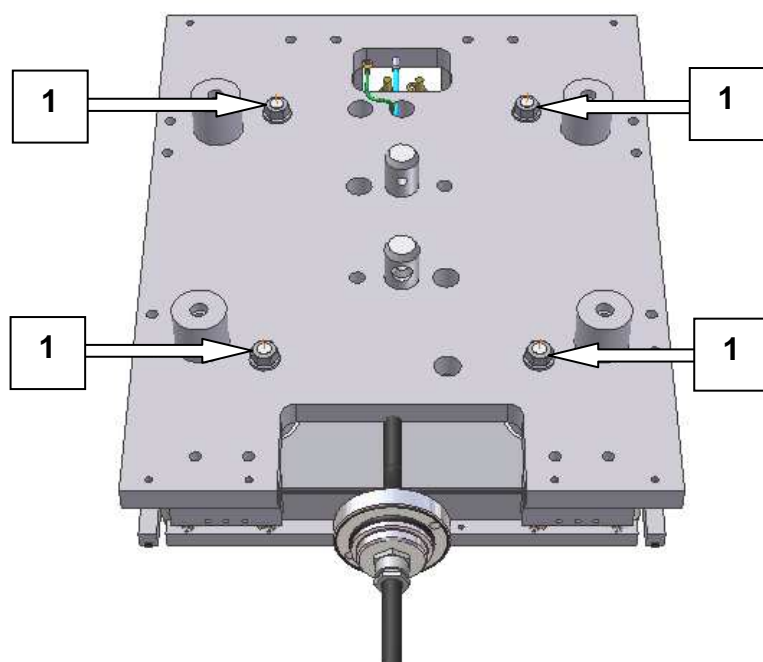
HEATING ELEMENT REPLACING

Remove the mould as described previously.

Replace the heating element as follows:

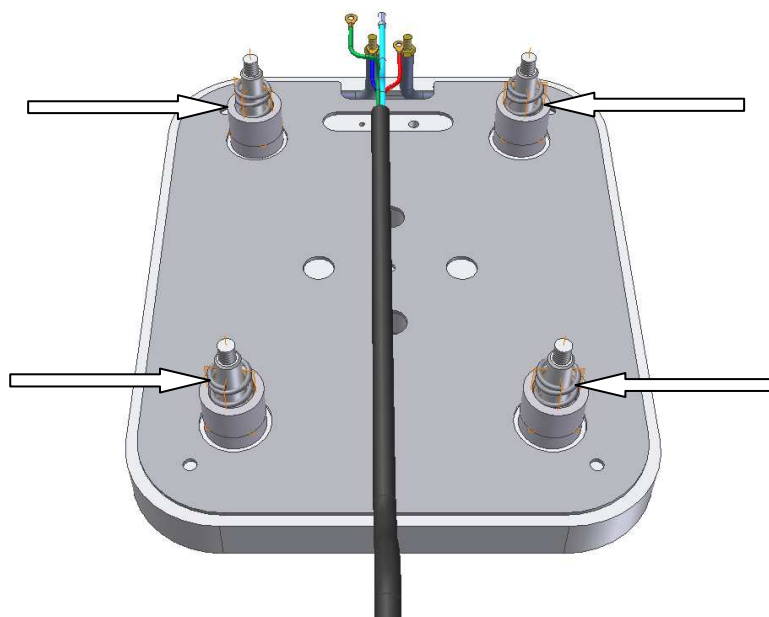
- Unscrew the four nuts (1 – Pict. 5).

PICTURE 5



- Then turn the mould and remove the four spacers with the four springs (Pict. 6).





PICTURE 6



Now it is possible remove the insulating plate that covers the heating element.

Now it is possible remove the heating element.

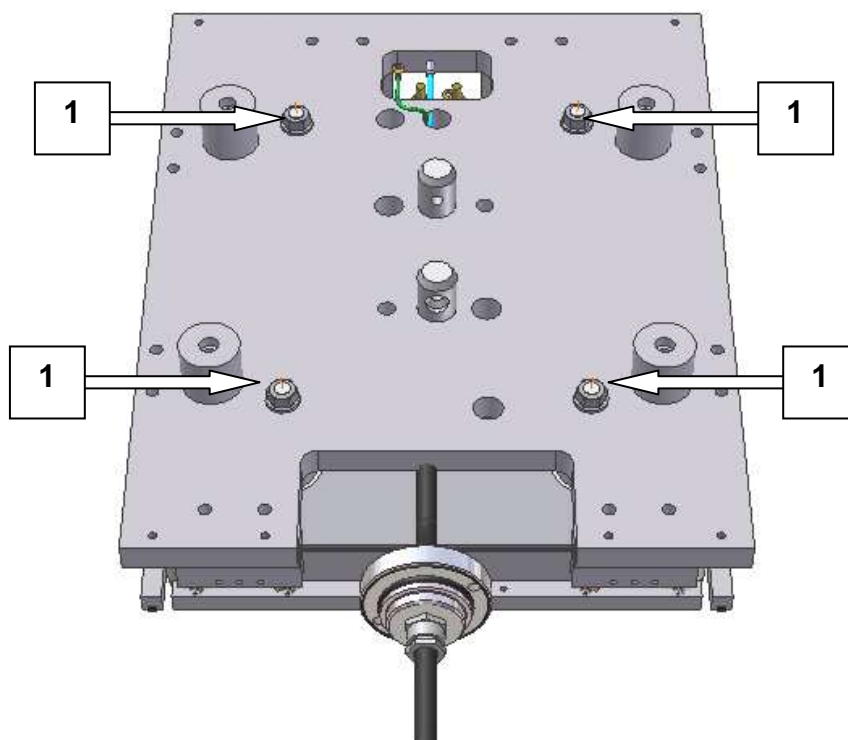
Wait 24 hours before reassembling the mould (following the instructions).

Warnings	
	During the substitution operation it is COMPULSORY to use individual protection devices
	During the substitution operations, pay always the greatest attention to the cutting blade and to the sealing plate.
	During the operations previously described, the operator must obligatory wear the protective gloves in order to avoid crashing and cutting risks (the mould is issued with a blade for the film cutting once sealed on the tray).
	Before carrying out these operations, it is necessary to hold for some minutes for the elements cooling.

BLADE REPLACEMENT

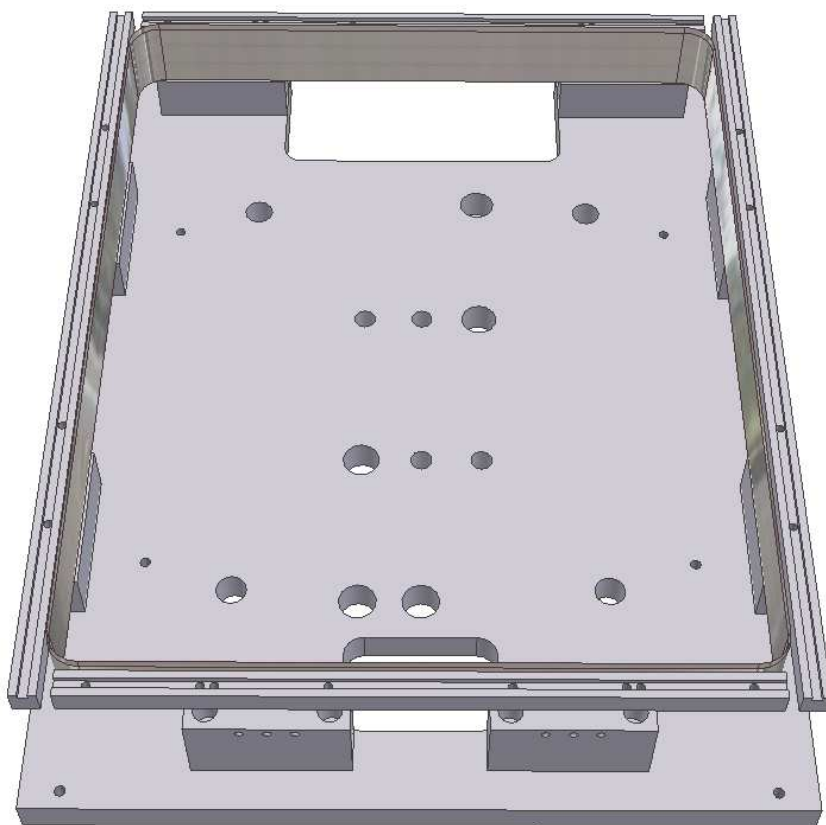
- Remove the sealing group as described above.
- Unscrew the four nuts (1 – Pict. 8).

PICTURE 8



- Turn the mould upside down as shown in Picture 9.

PICTURE 9



Remove the screws shown in picture, which fix the blade, and replace it with the new one. Fit the plate again, following the above instructions in the opposite way.

Note



Avoid bending the plate during the assembly to not compromise the integrity and the duration.

Warnings





During the operations previously described, the operator must obligatory wear the protective gloves in order to avoid crashing and cutting risks (the mould is issued with a blade for the film cutting once sealed on the tray).



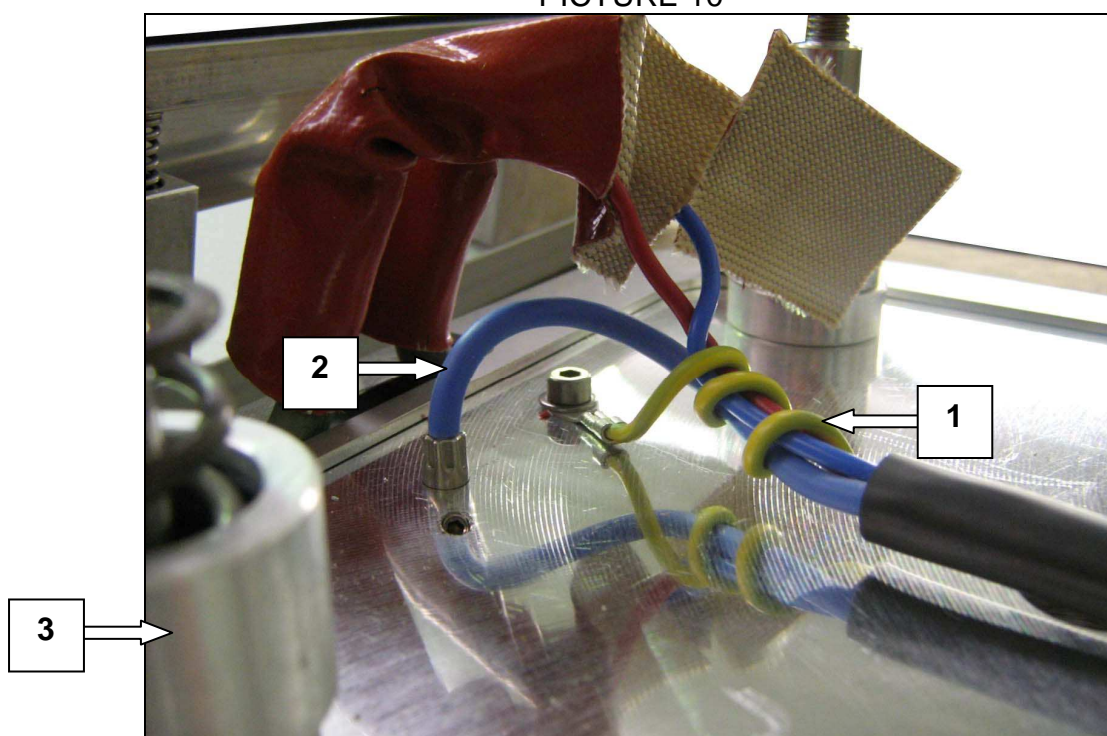
Before carrying out these operations, it is necessary to hold for some minutes for the elements cooling.

FEEDING CABLE SUSTITUTION

Warnings	
	<p>During the operations previously described, the operator must obligatory wear the protective gloves in order to avoid crashing and cutting risks (the mould is issued with a blade for the film cutting once sealed on the tray).</p>
	<p>Before carrying out these operations, it is necessary to hold for some minutes for the elements cooling.</p>

If it is necessary to substitute the feeding cable connect the terminals as indicated in Picture 10.

PICTURE 10



During the assembling be sure to wrap the Earth/yellow wire as shown in item 1 – Pict. 10, in order to keep together the wires of the cable. In this way the curve of probe-wire (2 – Pict. 10) is not higher than spacers (3 – Pict. 8) of sealing plate.

The cable assembling as shown in Pict. 11 is WRONG. In fact the movement of mould during the sealing would cause the squashing of cable and consequently a severe wear of the part itself.

PICTURE 11



RECOMMENDATIONS FOR MAINTENANCE

All installation, repair, cleaning operations must be made by specialized staff, according to the procedures described in this manual and to the instructions received by ILPRA Assistance Service.

In any case, you have to be sure that machine is off before starting any maintenance.

The ILPRA packaging machines are endowed with safety devices which comply with actual regulations. The efficiency of this devices is guaranteed only if the machine is properly used, according to precautions described in this manual. It is forbidden in any case to exclude or tamper the safety systems mounted on the machine.

ILPRA does not take any responsibility for the consequences caused by non-observance of mentioned precautions.

The electrical safety limit switch must be kept in perfect efficiency and always active. Do not tamper for any reason the electrical safeties!

The panel of the electric box must be kept constantly closed, unless when it is necessary to make the normal maintenance operations. This precaution is extremely important to prevent the internal gears from dirt, grit or water seepage, causing in this way damages or malfunctioning of the electrical equipments.






Never make repairs on electrical equipments without having turned off the main switch of the machine.

Do not modify without precise reasons the parameters contained into PLC. Should it necessary to make some modifications, call at first ILPRA Assistance Service.

Before making any modification, please call ILPRA Assistance Service.

MACHINE MAINTENANCE

A proper maintenance constitutes a decisive factor for a longer life of the machine in optimum running and production. Therefore, the machine will have to be subjected to a control and constant maintenance in order to keep the technical, productive and safety conditions unaltered.

Warnings	
	The operations described in this paragraph will be carried out ONLY by authorized and qualified staff or by technicians of the assistance service of the Building House.
	During the maintenance, cleaning, substitution and adjustment operations use individual protection devices.
	The operations described in this paragraph WILL BE DONE with the machine in stop phase and the electric connection switch has to be separated from the feed and the connecting pipe has to be disconnected from the rapid coupling of filter reduction group.
	Modifications and extraordinary maintenance, different from the maintenance and the replacements previously illustrated, do not have to be carried out without consulting I.L.P.R.A. S.p.A. which, according to the cases, will give or not its approval to proceed, or suggest the intervention of a own qualified technician. Please, remind that wrong interventions could cause anomalies, damages to the machine or risks for the employed workers. Therefore, I.L.P.R.A. S.p.A. refuses all responsibility springing from the above operations.
	The machine has a protection degree of IP 65 Class; this means that it can be washed by using a jet of water of moderate pressure: the use of high pressure jet of water is ABSOLUTELY TO AVOID . Pay the greatest attention during the machine cleaning using non-corrosive detergent products, diluted in water and applied with a sponge.

GREASING

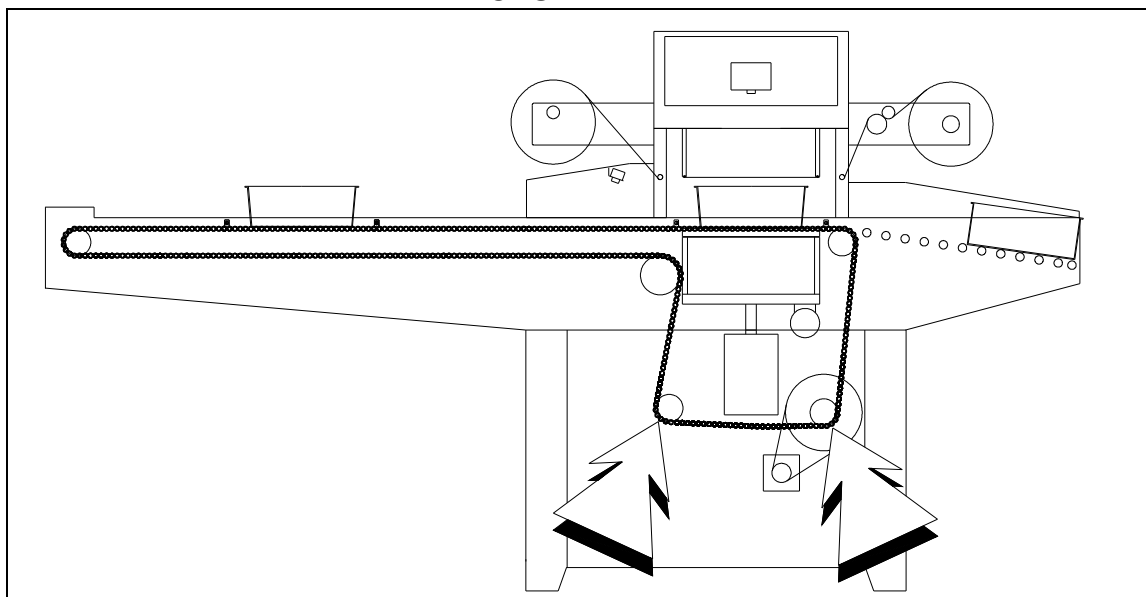
You have to periodically make the greasing of all sliding parts; the greasing is carried out by means of some common grease, in jar or air-spray.

The parts that need a periodical greasing are: the cylinders of sealing, of the lower chamber and of the mould blocking and the movable parts of the mould (studs).

In addition to the above-mentioned sliding parts, you have always to lubricate also the chains of trays transport. This operation must be made weekly, by following these instruction:

1. Open the cover protecting the transport chain gears (placed at the end of the working surface) by using the special key.
2. Spray on the chains, just next to the pinions indicated in picture, the air-spray grease: the maker suggests grease type **AREXONS TG248**.
3. Correctly close the open cover.

PICTURE 1



PREVENTIVE CONTROLS AFTER THE RECEIVING

When the machine arrives to the installation plant, it is recommended to: Verify if, together with the machine all the law documents have been delivered, like:

- This instructions manual;
- The electrical diagram;
- The pneumatic diagram;
- The vacuum circuit diagram (if there is);
- The CE declaration.

In case the furniture of a series of spare parts has been required, control its presence;

In case the optional furniture has been required, control its presence.

CHECKING OF MACHINE CONDITION

After the documental control, in order to identify any damages caused by transport, we recommend you to check accurately the machine condition and the integrity of the delicate parts, of which we make a non-exhaustive list:

- The protection carters;
- The levelling feet;
- The protection door and the discharge chute;
- The mechanic protections;
- The electric protections;
- The programming Display;
- The electric connections.

If you identify packages damages, operate as follows:

- ❑ **DAMAGES IDENTIFIED OUTSIDE OR LACKING OF SINGLE ELEMENTS:** they have to be declared, immediately after the delivering, to the courier, or to the conveyorman, ecc., and confirmed in writing in the waybill.
- ❑ **DAMAGES IDENTIFIED NOT IMMEDIATELY:** they have been declared to the courier, or to the conveyorman, ecc., within a due date admitted by the law.
- ❑ **SERIOUS DAMAGES:** a valuation by a technical expert in charge by the conveyorman, by the courier or by the relevant insurance society.

Notice



The complaints regarding any lacking in the material on issue must be done within due dates admitted by the purchase contract.

DAILY CHECKING

- Clean accurately the machine by following the instructions indicated in the following paragraph.
- Check the functioning of the emergency buttons and of the all security devices on the machine.
- Discharge the possible condensate from the tank of the FRL group.
- Check the pneumatic feeding value through the manometer of the FRL group
- Check the sealing plate conditions: remove any crust or residual film.
- Be sure the blade is without any residual of film, that could prevent from getting a good cutting.
- Be sure that inside the chamber and in the machine as well there are no plastic or product residual.
- Check the vacuum device setting: the environment pressure value must correspond to the 0 on the device.
- Check the condition of the sealing rubber, lower chamber rubber and press-film rubber.
- Check the quantity of the needed residual oxygen.
- Carry out a lubrication by means of a manual pump (when it is provided).

WEEKLY CHECKING

- Check the correct tightening of the all register screws of the machine components.
- Check the quantity of gas inside the tank.
- Check the usual worn out parts of the mould (press-film springs, blade profile, etc).
- Check the oil level inside the tank on the FRL group (where there are some pneumatic components that are not self-greasing).
- Do the greasing of the all mechanic parts by following the indications related in the relevant paragraph.

MONTHLY CHECKING




- Verify the conditions and the perfect functioning of the electric components on the machine.
- Verify the tension of the moving chains of the push bar and in case, continue with their tensioning by following the indication related in the relevant paragraph.
- Check visually all the lubrication liquids, if there are.
- Check the conditions of the vacuum/gas system seals.

TRI-MONTHLY CHECKING

- Replacement of vacuum/gas seals.
- Replacement of press-film and sealing seal.
- Cleaning, checking of the profile and possible replacement of the cutting blade.

YEARLY CHECKING

- Check accurately the perfect tightening of all the fixing bolts and the integrity of each machine component.

Warnings	
	<p>The operations described in this paragraph will be carried out ONLY by authorized and qualified staff or by technicians of the assistance service of the Building House.</p>
	<p>During the maintenance, cleaning, substitution ad adjustment operations use individual protection devices.</p>
	<p>During the above described operations, the operator must wear protective gloves to avoid any risk of crashing and cutting. Before making these operations wait some minutes till when the heated elements reach a temperature near to the environmental one.</p>

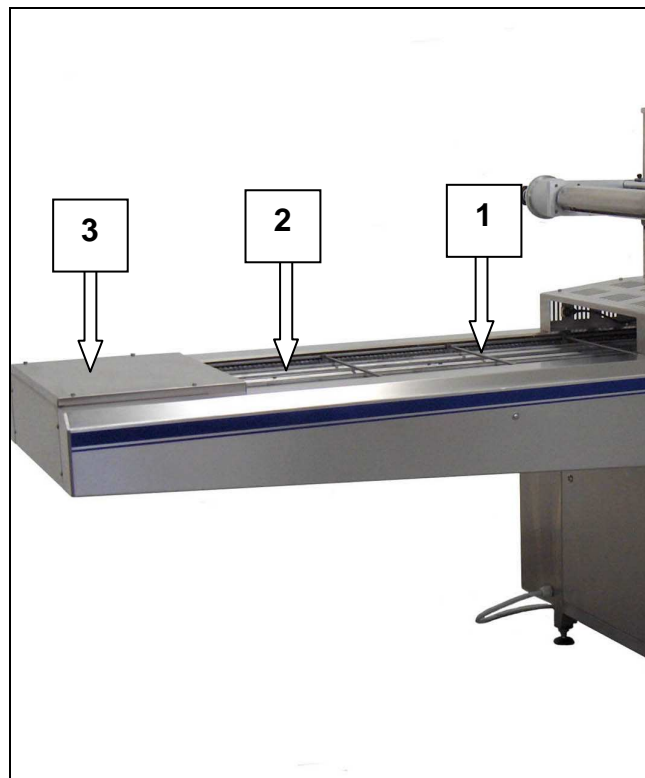
MACHINE CLEANING

According to the rules of the agro-industrial industry, the cleaning of the machine is an essential operation.

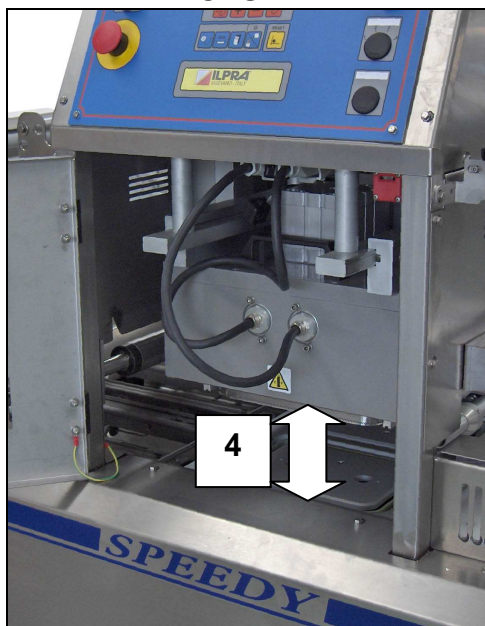
To clean the machine, the worker will do the procedure indicated below and use non-corrosive detergent products, diluted in water and applied with a sponge:

- Stop the machine working placing on **0 THE GENERAL SWITCH** which is on the **ELECTRIC BOX**: in this way the whole machine is separated from the electric feed and then switched off.
- Disconnect the machine from the pneumatic and electric connection sources.
- Wait some minutes till the heated elements reach a temperature near to the environmental one.
- Clean longitudinal pushing bars **(1)**, transport guides **(2)** and loading area.
- Remove the sheet carter **(3)** that is at the beginning of the charge plane; before doing this, it is necessary to place a container in the opening side in order to collect any impurities that are inside it that could fall.
- Open the sealing area protection door and clean accurately the packaging area (sealing plate, tray carrier and ejection plate) **(4)**.

PICTURE 1

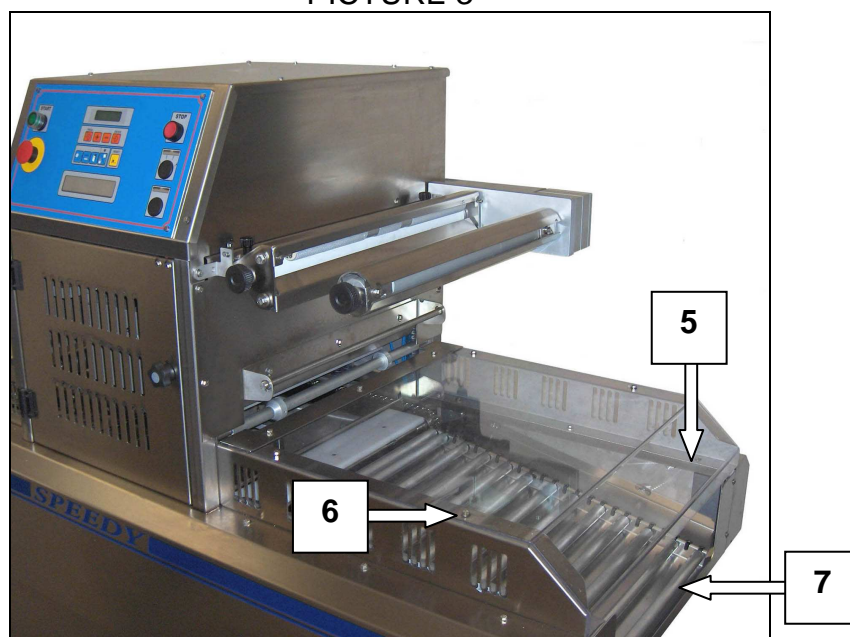


PICTURE 2









- Remove the upper Plexiglas cover in the discharge area (5) unscrew the fixing screw (6).
- Remove the free rolls (7); this operation is very easy thanks to the groove (1) made in one of the housing of the rolls.
- Clean the rolls by water or degreasing products.
- Place the rolls again in their housings.
- Reassemble correctly the protection.

PICTURE 3



- Connect the machine to the electric and pneumatic connection sources.
- Switch on the machine putting on I the general switch that is on the electric box.
- Enable the electric feed of the machine operating on the AUXILIARY INSERTION button that is on the control panel.
- Press the PROG key to entry in the programming pages to insert the "1" value in the chamber Closing Page.
- Open the protection door of the packaging assemble and wash accurately the interested part.
- Once finished the cleaning, close the door and insert the "0" value in the chamber Closing Page.

Notes	
	Before starting to carry out the washing, please make sure that the connectors has got their protection caps to prevent the entry of water and damage the machine.
	In order to carry out the washing of the thermo-sealing machine, we suggest you to use the following products: P3 – FPC - HENKEL or SOLFIOB - IOB – SAI. Remind to carry out a good rinse at the end.

Warning	
	The operations described in this paragraph will be carried out ONLY by authorized and qualified staff or by technicians of the assistance service of the Building House.
	During the maintenance, cleaning, substitution ad adjustment operations use individual protection devices.
	During the above described operations, the operator must wear protective gloves to avoid any risk of crashing and cutting. Before making these operations wait some minutes till when the heated elements reach a temperature near to the environmental one.
	In order to make this operation as quick as possible, this model is IP 65 Class protection; this means it can be washed by a jet of water with a moderate pressure. Please absolutely be careful to avoid using high pressure jets of water. During the cleaning of the machine, please avoid washing the parts including electric connections, switches, control devices and sealing group (sealing plate, heating element, probe).

SOUNDS EMISSIONS

The machine was not examined regarding to the phonometrical monitoring, but in consideration of:

- Simplicity of manufacturing.
- Used materials for the manufacturing.
- Simplicity of the production cycle.

The manufacturer assure that the noise level, also at maximum functioning speed, is below the limits permitted by laws in force.

TROUBLE SHOOTING

This paragraph takes into consideration the main faults that may occur during the normal working of the machine and suggests the relevant remedies.





FAULTS	CAUSES	REMEDIES
After carrying out all starting operations, the machine does not start.	The machine is not in phase	Press start Once to set the auxiliaries of the machine, then press reset and start
	A guarding is not well closed.	Close correctly the guardings
	Emergency button is pressed	Unlock
	Pneumatical feeding is missing or not enough	Check the pressure on pressure gauge (6-7 bars) and repair possible leaks or missing connections.
	A magnetothermic relay or an electromagnetic switch are released.	Reset.
The machine does not move the bend-die.	A fuse is burnt out.	Replace it.
	The tray detecting photocell is damaged	Replace it.
The machine moves continuously the bend-die, even without any tray	The photocell lens is dirty	Clean it with a dry cloth


FAULTS	CAUSES	REMEDIES
The sealing plate does not reach temperature.	Heating element and/or feeding cable are damaged	Replace them.
The machine does not seal.	The sealing plate is dirty.	Disassemble and clean it.
	Tray thickness is anomalous or tray is deformed.	Check the trays
The sealing plate gets warmer than usual.	The detector is damaged	Replace it.
The foil cutting is not carried out or not uniform	The cutting blade is damaged	Replace it.
	The gaskets of cutting cylinder are damaged	Replace them
	The foil-press gasket is dirty or worn out.	Clean or replace it.
	Pneumatical pressure insufficient.	Verify connections and air presence in the plant.
	The springs are worn out	Replace them

MACHINE DEMOLITION

Whenever there is intention to scrap the machine, for any reasons, it is necessary to observe some fundamental rules, in order to save the health and the environment where we live.

1. Sheaths, flexible pipes and components in plastic material or anyway not metallic, shall have to be disassembled and disposed separately.
2. The frame and all metallic parts of the machine shall have to be disassembled and grouped per type of material. The various groups so obtained shall have to be scraped and melted, in order to allow the recycling of the constituent material of the original machine.
3. Pneumatic components as cylinders shall have to be disassembled to be used again, if they are still in good conditions or, if possible, to be revised and recycled.
4. The motor oil recovery must be made separately from any other scrap material to avoid any damage to the environment; after recovering it shall have to be disposed by a specialized Company, according to laws in force in the country where the machine is installed.

Warnigs	
	The responsibility of any reuse some parts of the machine, for example motors, pneumatic cylinders..., is exclusively of the User.
	The Builder is not responsible of damages caused by the machine in case it is used when it lacks of some components or for a use not specified explicitly in this manual.
	For the demolition of any machines connected to this machine, it is necessary to follow the instructions that are in relevant usual manuals.
	IN ANY CASE, IT IS NECESSARY TO RESPECT THE REGULATIONS IN FORCE IN THE USER'S COUNTRY AS REGARDS THE REMOVAL OF THE MATERIALS THAT COMPOSE THE MACHINE.

Note	
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