RotoPack

USE AND MAINTENANCE MANUAL

TURN

SEMI-AUTOMATIC ATM SEALING MACHINE FOR TRAYS

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Ver: 10/14

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DECLARATION OF CONFORMITY:

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hereby certifies that the packaging machine

Type	**TURN**	**Serial N°**		**Year of Manufacture**	

was built in compliance with Machinery Directive 2006/42/EEC, Low Voltage Directive 2006/95/EEC, and Electromagnetic Compatibility Directive 2004/108/EEC.

Palazzolo Mil.se (Milan - Italy) **.....**

General Manager

1. TECHNICAL SPECIFICATIONS

Use: The TURN machine is designed for heat sealing food products in preformed trays, using film. In particular, it is equipped for vacuum-sealing and capable of gas injection to create a protective atmosphere.

Products: fish, dairy products, cheese, cold meats, ready-cooked meals, etc.

Containers used: trays with a max size of 350 x 265 x 210 h

Temperature control: thermoregulator

Max film width: 400mm

Overall dimensions: 1250 x 700 x 1360 mm

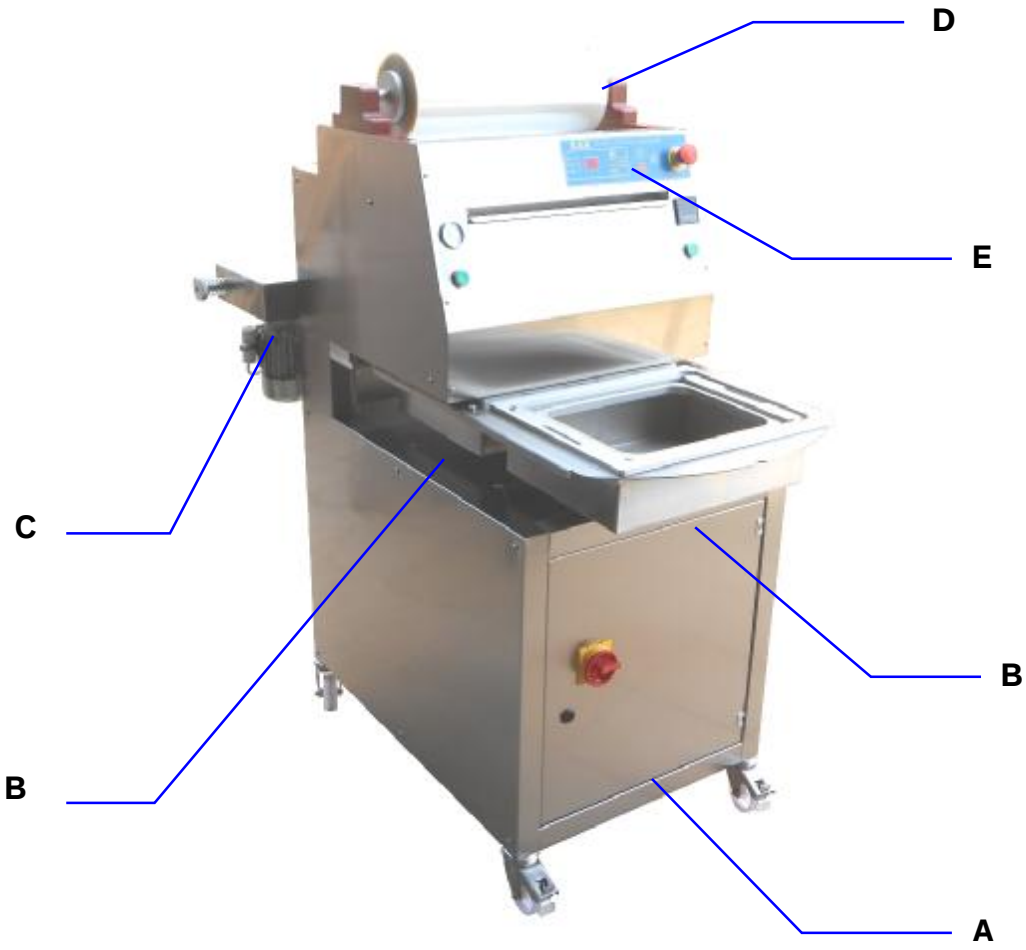
Technical Specifications:

- voltage	220V or 380V, 50 Hz
- input power	2500 Watts max
- compressed air consumption	50 l/h x 30 cycles/h
- standard pressure	6 – 8 Atm.
- weight	150kg

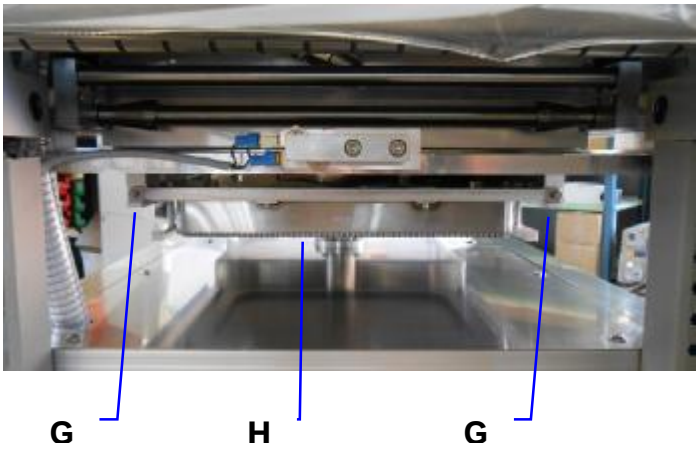
Optional equipment:

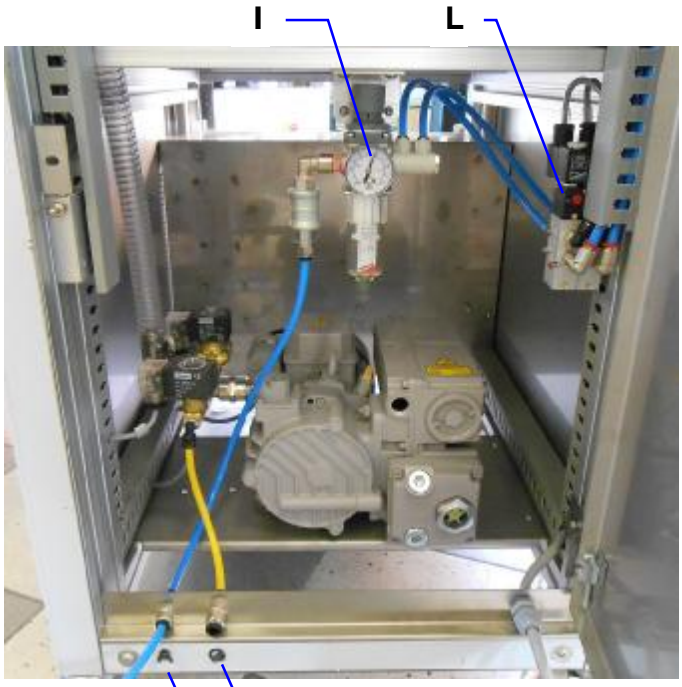
- moulds of different formats besides that required
- photocell for printed film
- date stamp
- 40m³ pump (THREE-PHASE)
- PFPE version pump for oxygen mixtures of more than 20%

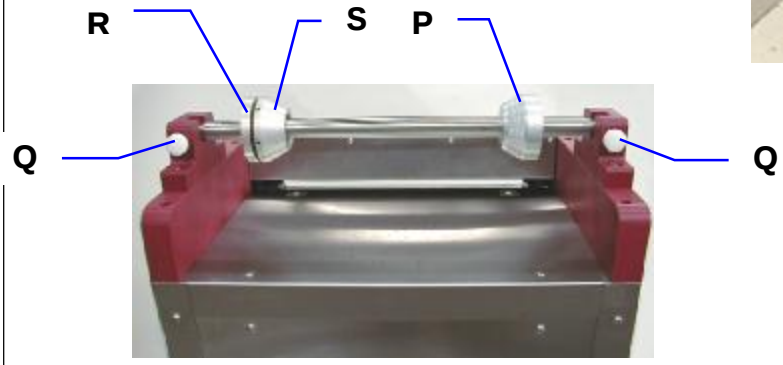
2. MACHINE DESCRIPTION

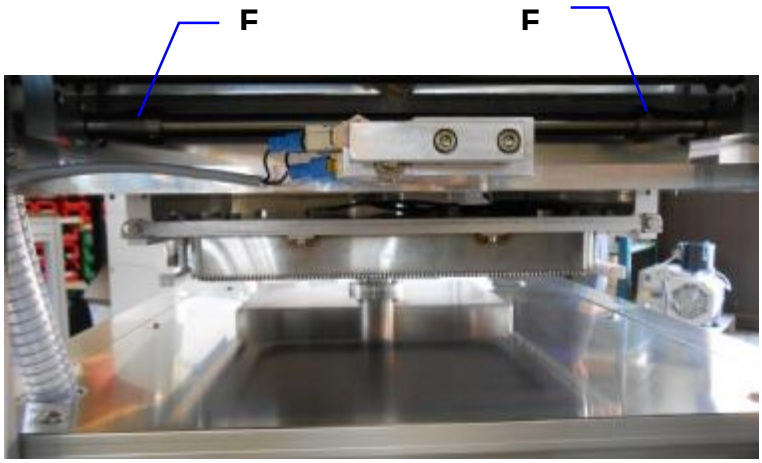


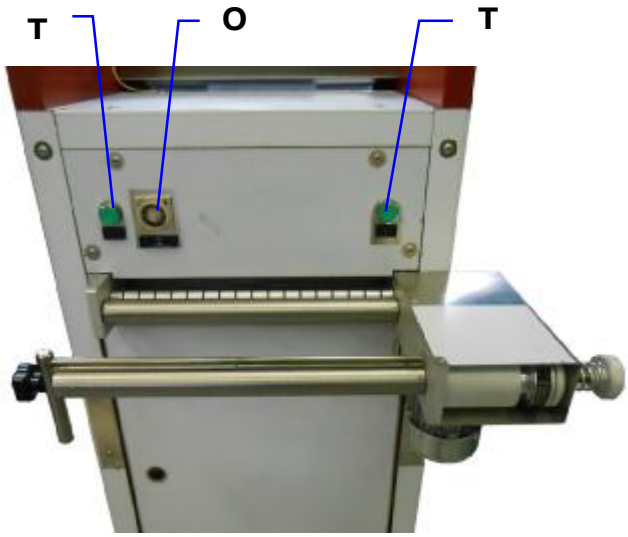
A: front door (electrical panel)
B: vacuum tanks
C: Scrap film rewinder
D: Film coil shaft
E: control console



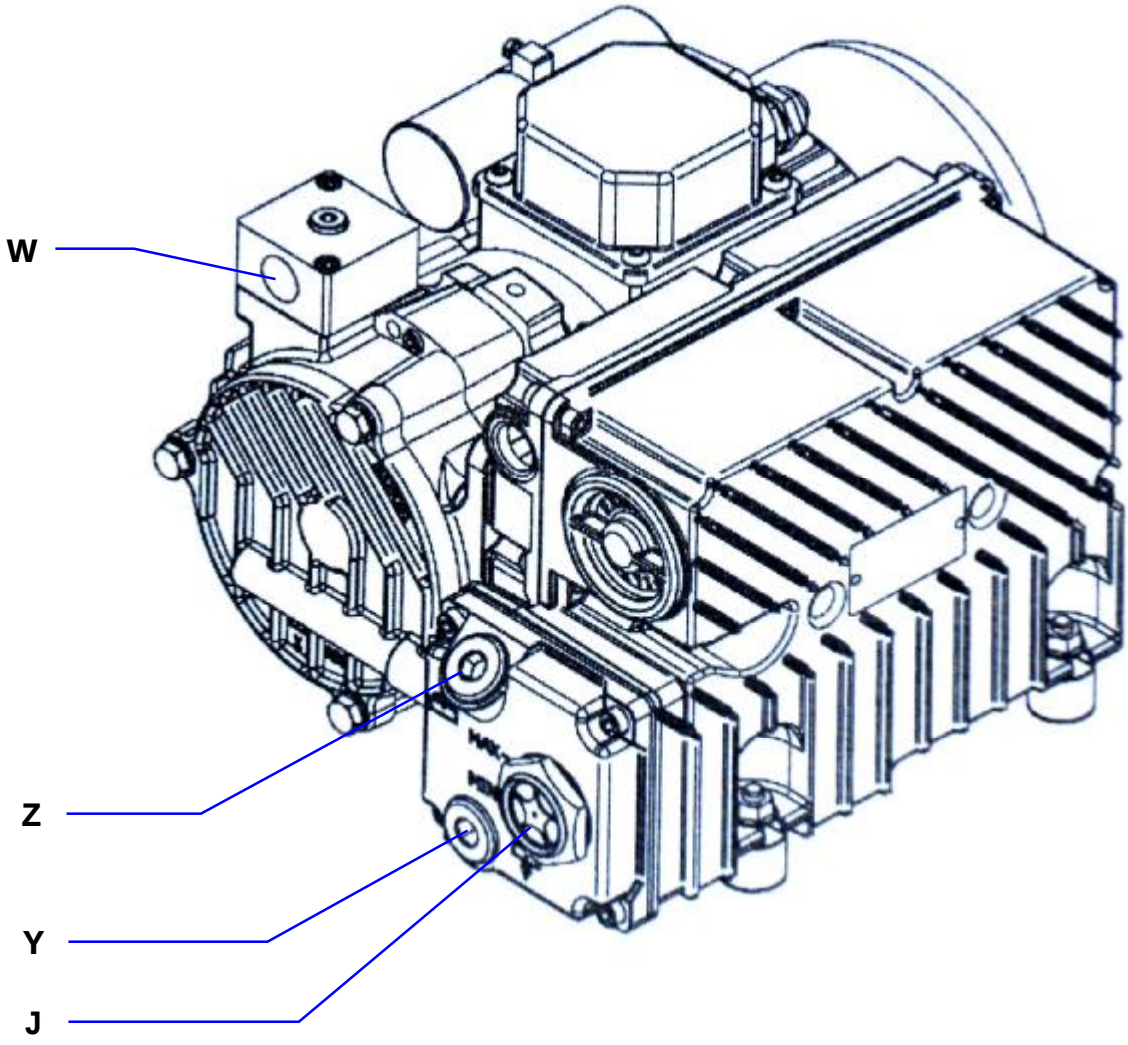








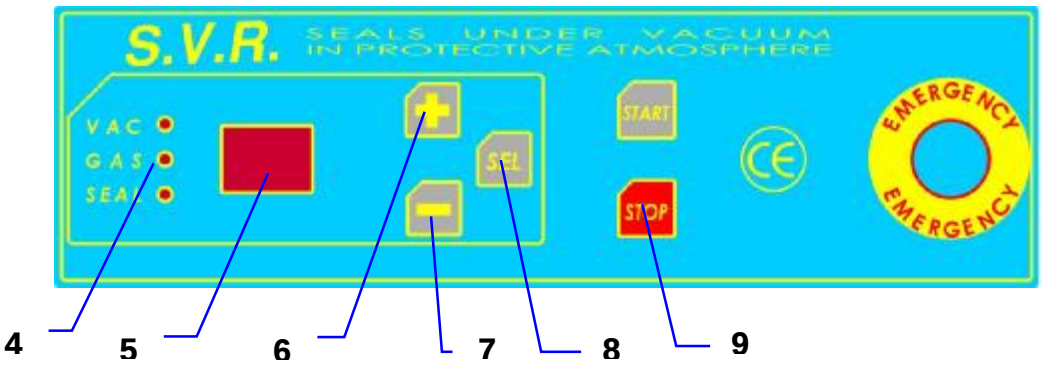
F: cones for stretching punched film
G: mould release screws and plates
H: upper mould
K: 8 dia rapid coupling for compressed air
I: filter and pressure gauge
L: chamber solenoid valves and welding
M: 10 dia rapid coupling for gas
O: scrap collector timer
P: knurled cone
Q: friction handgrips for reel roller
R: flange on mobile cone
S: moving cone
T: pushbuttons for activating the scrap collector manually



2.1 VACUUM PUMP

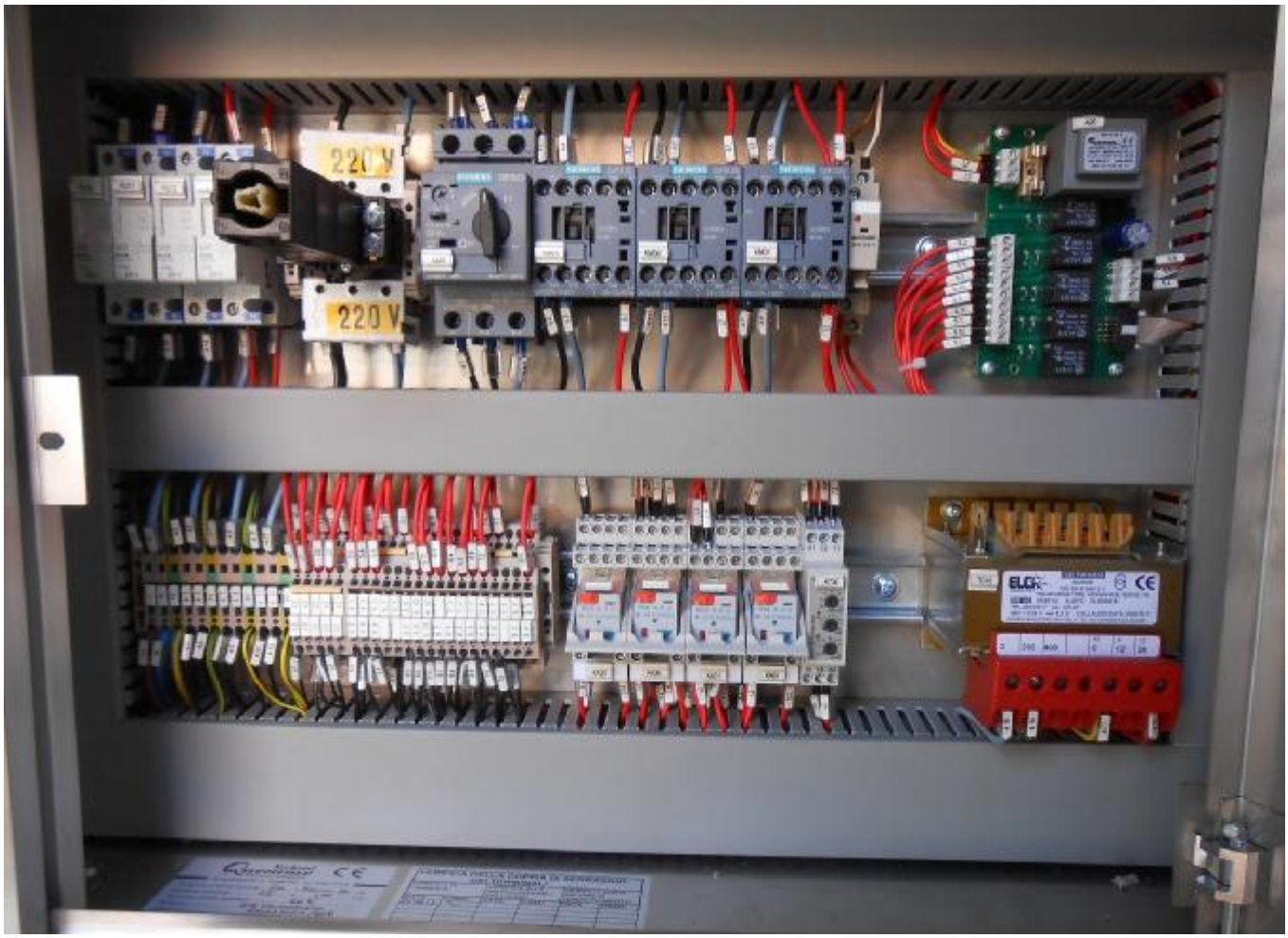
Standard 25m³ vacuum pump. For spares and maintenance see Chapter 13

J: oil level
W: suction coupling
Y: oil discharge plug
Z: oil loading plug



2.2 CONTROL PANEL

1: analogue vacuum gauge
2: thermoregulator to control the temperature on the sealing plate
3: Emergency stop button as per the standards
4: Main machine operations LED
5: display
6: increase recipe values and scroll recipes
7: decrease recipe values and scroll recipes
8: change recipe parameters
9: stop cycle
10: Start cycle



2.3 ELECTRICAL PANEL

3. SAFETY REGULATIONS

A few, simple rules should be followed for a safe use of the machine.
Read the instructions carefully before use.

Check that the vacuum tank contains no objects or other items, even if they are small.

Connect the machine to a power supply socket provided with earthing and protected by a magneto-thermal differential switch or by 15-A (minimum) fuses.

The SVR model is not set up for use with PURE OXYGEN cylinders. Packaging using only PURE OXYGEN or oxygen mixtures of more than 20% is therefore strictly forbidden.
For packing using pure oxygen, the machine must be fitted with a PFPE type pump, which is suitable for packing with oxygen mixtures of more than 20%.

The machine is fitted with fixed guards for pneumatic and electrical parts both above and below the worktop. Some moving components that take part in the processing cannot be protected with guards due to their shape. Safety is however guaranteed by the characteristics of the machine. All guards are made of steel and can be removed for inspecting the machine.

The control panel has a red, mushroom-shaped emergency button that allows to stop the machine in class 0 according to UNI-EN 60204 standard.

The machine is controlled by means of the pushbuttons on the control panel. The relevant safety standards must be respected when the machine is in operation.

In the event of any difficulties do not attempt to resolve any damage caused. Contact the RotoPack service centre or your supplier.
RotoPack declines all responsibility for damage to people or property arising from the operations performed by the operator.

Please note that regulations require that loads exceeding 15 kg should be handled by two persons and that fire regulations must be strictly observed.

Always close the cylinders using their specific valves after using the machine.

Never carry out any operations on the machine before turning it off, disconnecting the power supply and waiting until the sealing plate cools down.

Do not operate the machine with the guards not properly installed.

Do not tamper with the safety devices fitted on the doors in order to work with the doors open.

Where the CLIENT installs the machine or attaches accessories to it - which are not supplied by RotoPack s.r.l. - they are to ensure that the safety regulations laid down in the Machinery Directive are adhered to.

Since this machine is intended for use in the agricultural and food industries, the health and cleanliness standards laid down in the hygiene standards must be respected.

No safety device must be removed or bypassed. Arbitrary adaptations or modifications to the machine are forbidden for safety reasons.

Keep the instruction manual with the machine. The information therein will ensure a good machine efficiency and safe operating conditions.

4. MACHINE INSTALLATION:

N.B.: INSTALLATION, ASSEMBLING AND REPAIR MUST BE CARRIED OUT BY QUALIFIED PERSONNEL FOLLOWING THE INSTRUCTIONS GIVEN IN THIS MANUAL.

- Remove wrappings from the machine
- Position the machine on an even surface so as to prevent any possible malfunction
- Keep a free space of at least thirty centimetres between the sides and back of the machine and other possible obstacles to allow a proper cooling of the pump.
- For correct installation a regular omnipolar switch is necessary between the packaging machine and the grid with a contact opening of at least 3 mm per pole. The switch must be easily accessible.
- The machine is equipped with a plate stating the model, serial number and running voltage; please verify that the power supply is of the required kind.
- Earthing of the packaging machine is essential so as to avoid jeopardising the integrity of the electronic card that controls the machine
- Avoid positioning the packaging machine in places with a high humidity rate and with a room temperature below +8°C, as the vacuum pump does not work at low temperatures.
- Lock the wheels on the heat sealing machine in position, using the brakes.

4.1 PNEUMATIC CONNECTION

Connect the compressed air supply to the rapid coupling below the rear door on the machine (see K on page 6).

Use an 8 dia Rilsan type stiff or spiral pipe.

Make sure that the compressor or system supplies compressed air at a pressure of over 6 BAR with a minimum supply of 10 – 20 litres.

The pressure regulator installed is already calibrated at a pressure of 5 –6 BAR.

4.2 ELECTRIC CONNECTION

Insert the plug in a power supply socket fitted with a trip switch that provides the voltage indicated on the identity plate on the packing machine.
Turn the main switch clockwise to switch the sealing temperature thermoregulator on (see 2 on page 8).

If your machine model requires a 380 V supply, check that the connection for the pump is correct. To do so proceed as follows:

§ When the rotary table is in position , press start buttons (see from page 10 to page 8)

§ The pump starts up and removes the air from the vacuum tank. Visually check the vacuum gauge (see 1 on page 8) to make sure the vacuum is formed (if this does not happen it means that the pump is rotating the wrong way. This means that the phases on the plug must be inverted).

N.B.: Do not let the pump run in the reverse direction for too long.

If the pump is rotating in the correct direction, wait for the cycle to end.

Start the machine using the main switch. The display and the thermoregulator will switch on, with the latter displaying the ambient temperature. Wait until the thermoregulator reaches the set temperature before using the machine.
Once such temperature has been reached, it is automatically maintained by the thermoregulator.
The temperature is set at 180° for polypropylene film reels with thickness of 50 mycron. For different types of film, tests should be carried out based on the film manufacturer's instructions.
Wait approximately 15 minutes for the sealing plate to reach a temperature of 180°.

4.3 GAS CONNECTION

N.B.: The first connection of gas cylinders must be attended by qualified personnel. Gas cylinders are usually loaded above 150 ATM. Make sure that inert gas cylinders are provided with pressure regulators and pressure gauges.

Set the pressure at the cylinder outlet so that it is suitable for the percentage of the gas you wish to have in the trays. This must not exceed 1,5-2 bar

Connect the cylinder to the machine, using a type-approved food grade Rilsan flexible hose connected to the rapid coupling under the rear door on the machine (see M on page 6)

Gas injection into the machine should be monitored via the display (see 5 on page 8) and the vacuum gauge (see 1 on page 8).

If packages with a higher gas quantity are required, the value may also be decreased to 0 bar, to ambient pressure, or to a positive pressure.

Always close the cylinders using their stopcocks after using the machine and during periods of inactivity.

The TURN model is not set up for use with PURE OXYGEN cylinders. Packaging using only PURE OXYGEN or oxygen mixtures of more than 20% is therefore strictly forbidden.
In fact, for suctioning oxygen at percentages above that found in the air (20%) the mineral oils easily oxidise, turn dark, and cause abrasion. At percentages of oxygen of above 25/30% there is a risk of the oil tank exploding.
For packing using pure oxygen, the machine must be fitted with a PFPE type pump, which is suitable for packing with oxygen mixtures of more than 20%.

5. OPERATION:

The operation of chamber vacuum tray packaging machines can be divided into 4 sequential phases beginning with the closure of the drawer and starting the machine, using the "START" button.

1) Suction

The upper chamber moves down onto the lower tank creating a closed chamber. The pump starts working sucking up the air from inside the chamber and therefore also from inside the tray containing the food product.

2) Gas Injection

Using the same suction hose on the pump, a valve opens and allows the inert gas to enter the chamber.

3) Sealing

The upper moulding is lowered and punches and seals the film onto the tray.

4) Air Return or Release

A solenoid valve is operated to let air into the chamber so that the internal pressure returns to atmospheric pressure, and the upper chamber is raised.

6. PRELIMINARY OPERATIONS

6.1 POSITIONING THE FILM

Position the reel of film: remove one of the cones (see R & P on page 6) on the reel shaft (locked by a grub screw). Insert the reel of film and the refit the cone, gripping the reel. Tighten the grub screw on the cone and turn the threaded cone (see S on page 6) to secure the reel properly.
WARNING: The reel must be centred to the machine. To centre it slacken the grub screws on both cones (see R & P on page 6), centre the reel, tighten the grub screws and secure the reel by turning the threaded cone (see S on page 6).
Replace the shaft in its seating and tighten the friction handgrips once again (see Q on page 6).

Install the film coil as showed into figure 4a, paying attention to follow the right course of the film between the rolls and keeping the sealable side of the film exteriorly.

With photocell: If you machine disposes of the photocell for printed film, install the film coil as showed into fig. 4b

Fig. 4a

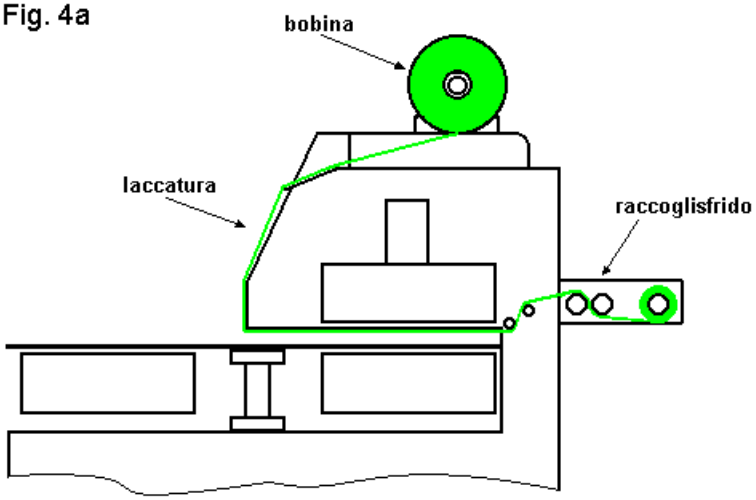
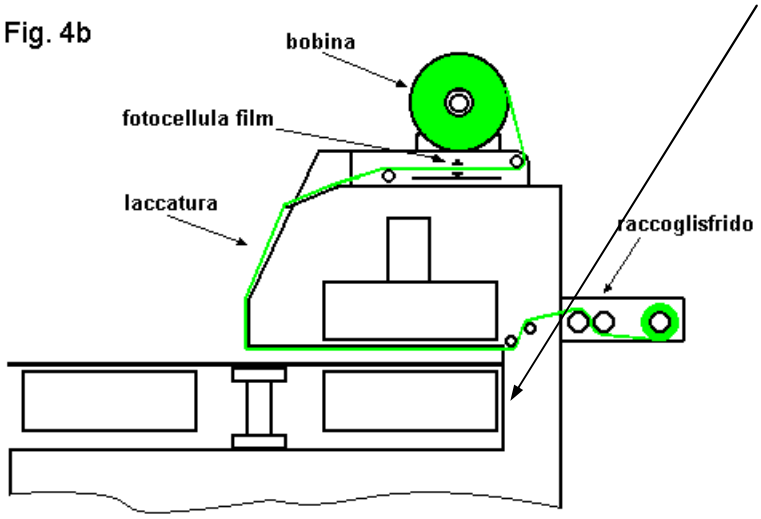


Fig. 4b



CAUTION: The roller under which the film must pass before the waste collector is equipped with 2 adjustable cones (see F on page 6) which serve to keep the film stretched while it is pulled so that it does not wrinkle.
Place these cones so that the window left during the die-cutting, which passes above these, widens towards the outside.
On the waste collector, the pommels that brake the film reel (see Q on page 6) should not be too tight so as to prevent them from encumbering the pull of the motor.

7. ADJUSTMENTS AND SETTINGS

7.1 SEALING TEMPERATURE ADJUSTMENT

This is the temperature displayed by the thermoregulator located on the control panel (see 2 on page 8) and shows the sealing plate temperature.
To edit, follow the instructions below:

- Display shows actual temperature (bigger display) and setted temperature (smaller display)
- Using increase and decrease buttons is possibile to modify the temperature.

7.2 SEALING, VACUUM AND GAS SETTING

The control panel is made in accordance with European low voltage regulations.
The system includes 10 storable packaging programs shown on the display with abbreviations from “P0” to “P9”. In case of a failure during one of the packaging phases, the relevant led (VAC or GAS) will flash and the cycle the machine is in will be interrupted. Therefore, **if the vacuum setting is not reached, the “VAC” led will switch on, and if the gas has not been injected properly, the “GAS” led will switch on.**
If the gas does not have enough pressure, the machine will not carry out programs involving gas injection.

1) When the machine is switched on using the main switch, the card is supplied with power and recipe or program “P0” is shown on the display
2) To shift from one program to another use keys “+” and “-“

The sealing machine “TURN” works with a vacuum sensor, the vacuum inhalation and gas injection are made according with detection of the vacuum sensor probe that control the vacuum pump and gas according with the actual pressure inside the vacuum chamber

SETTINGS:

1. when the “SEL” key is held down for 3-4 seconds the “VAC” LED switches on. The display shows the vacuum percentage setting for suctioning (0% to 99% which can be set using “+” and “-“, where 0% indicates no vacuum).
   Above 99%, when “+” is pushed again on the probe model, extra-vacuuming can be set (E1 to E9 which can be set using “+” and “-“). Each extra-vacuuming setting indicates the time the pump continues to run after 99% has been reached (with E1 = 2 seconds, E2 = 4 seconds, E3 = 6seconds, etc.)
2. When the “SEL” key is held down for 1 second the “GAS” LED switches on. The display shows the setting for the percentage of gas to be injected (0% to 99% which can be set using “+” and “-“, where 0% indicates no gas).
3. When the “SEL” key is held down for 1 second the “SAL” LED switches on. The display shows the setting for the sealing time, during which the sealing bar forms the seal (0 to 9,9 seconds, which can be set using “+” and “-“)
4. When the “SEL” key is held down for 1 second the “VAC”, “GAS”, and “SAL” LEDs switch on, the display shows the delay time set, during which the gas is allowed to spread evenly throughout the chamber before the seal is formed (0 to 9,5 seconds, which can be set using “+” and “-“).
5. When the “SEL” key is held down for 1 second the “VAC”, “GAS” and “SAL” LEDs all flash. The display shows the extra-vacuum time (0 to 9,5 seconds, which can be set using “+” and “-“). The time set is that attributed to E1.
6. When the “SEL” key is held down for 3-4 seconds, the unit exits the timer setting mode, saving the recipe and the display shows the current program number (P0, P1, P2, etc.).

From any of the setting modes, if the “SEL” key is pushed for 3-4 seconds, the unit exits the timer setting mode and returns to displaying the current program number (P0, P1, P2, etc.).

MAXIMUM VACUUM SETTING:

This operation involves assigning a certain vacuum value, corresponding to the maximum 99% vacuum to be reached. This is done by the manufacturer during testing, however, further setting may be necessary. A specific vacuum value may or may not be attainable, depending on the atmospheric pressure and humidity rate.
To carry out this setting proceed as follows:
- Press keys “+” and “-“ simultaneously, and holding them down switch the machine off and on again using the main switch (the machine records the ambient pressure).
-turn the table in position and push “SEL” to activate the pump and allow it to run until the analogue vacuum gauge reads –1bar (the standard pump used takes about 16 sec.)
- Then, press STOP and the machine records the maximum vacuum reached.

8. MODIFIED ATMOSPHERE PACKAGING:

Normally, three types of food gases are used:

1) NITROGEN (N2): which doesn't mix with the product and therefore doesn't alter its taste
2) CARBON DIOXIDE (CO2): which blends with the product and increases preservation
3) OXYGEN (O2): which preserves the natural colour of the product

These gases can be mixed with each other to achieve better results depending on the product to be preserved.

The TURN model is not set up for use with PURE OXYGEN cylinders. Packaging using only PURE OXYGEN or oxygen mixtures of more than 20% is therefore strictly forbidden.
For packing using pure oxygen, the machine must be fitted with a PFPE type pump, which is suitable for packing with oxygen mixtures of more than 20%.
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9. WORK CYCLE:

1. Switch on the machine using the main switch
2. The display on the machine shows program "P0". Select the required program and change the parameters if necessary as described previously, then wait for the sealing plate to reach the set temperature.
3. Insert the tray with the food into the lower moulding on rotary table
4. Rotate the table of 180°, when it is in the right position under the vacuum chamber, press START buttons.
5. If the machine detects any anomalies, such as:door open, emergency button pushed, pump switch tripped, table is not in position, etc. the buzzer goes off and a message appears on the display.
6. If no anomalies are detected, the machine runs a vacuum, gas, sealing, and air release cycle. Then rotate table and remove the sealed tray.

10. GENERAL WARNINGS:

- Watch over the machine while it is working
- Don't turn it upside down nor tilt it as the oil might spill out of the pump and damage it.
- Packing inflammable or explosive materials, pressure cylinders, loose or volatile powders (flour, sugar, etc.) is strictly forbidden.
- Do not touch the sealing plates while they are hot.
- Do not carry out packaging when the chamber is wet or moist.
- In case of overheating of the pump, the thermal cut-out switches it off until the temperature goes down.
- If one side of the tray is found not to have been sealed, this may be due to too little or too much gas being injected, which causes the seal to implode or explode at ambient pressure.

11. TROUBLESHOOTING

1. THE MACHINE WON'T START:
   - Check that the plug is connected to the socket, and check the main power supply if necessary.
   - Check the safety fuse and replace it, if necessary.

2. THE SEALING PLATE WON'T HEAT UP:
   - Check the temperature set on the thermoregulator.
   - The heating coil is broken.
   - The PT100 probe is not working.

3. IMPROPER SEALING:
   - Check the temperature set and adjust it, according to the result.
   - Increase or decrease the sealing plate laying time.
   - Check that the seal on the lower moulding is in good condition.
   - If one side of the tray is found not to have been sealed, this may be due to too little or too much gas being injected, which causes the seal to implode or explode at ambient pressure.

4. IMPROPER FILM CUTTING:
   - Check the blades for wear.
   - Check that there is no foreign matter on the moulding.
   - If necessary, adjust the height of the blade until the film is cut properly.

5. THE PNEUMATIC SYSTEM WON'T START:
   - Check the position of the filter's slide valve.
   - Check that there is enough pressure.
   - Check that the filter is not full of water.

6. THE PUMP WON'T REACH VACUUM:
   - Check that the thermal cut-out switch has not tripped.
   - Check that the motor is not short-circuiting.
   - Check for leaks in the tank, check the analogue vacuum gauge.
   - The pump has been damaged, the filters are too dirty, or the oil is unusable. Service or replace these parts.

7. AN ERROR MESSAGE APPEARS ON THE THERMOREGULATOR:
   - If the message reads "FFFF": The PT100 probe isn't working, the moulding is not inserted correctly, or the thermoregulator is broken.
   - If the message reads "SErr" the intake wiring to the thermoregulator is incorrect.

12. CHANGING THE MOULD

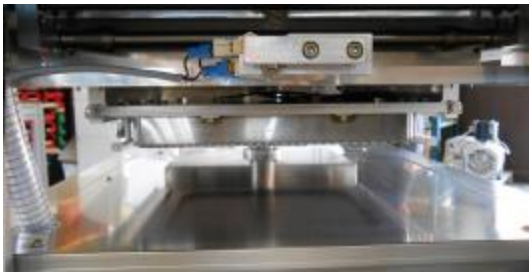
The machine can use differently shaped moulds. The packaging machine is provided with two types of moulds, the upper one used to seal and cut the film to the tray size, and the lower mould used to contain the tray(two lower moulds for TURN machine).
N.B.: The lower and upper mould must have the same shape. The machine comes with two coupled moulds of the same shape as the tray provided by the customer on placing the order. Any other type of mould replacing either of them irreparably damages the film cutting blades.
RotoPack S.r.l. declines all responsibility for damages arising from the use of moulds or counter moulds not supplied by RotoPack.

To change mouldings, proceed as follows:

- Switch the machine off by turning the main switch to 0 or OFF.
- Remove the plug from the power supply socket and wait for the sealing plate to cool down if necessary.
- Remove from the vacuum chamber, that is in front of the operator, the lower die by uplifting it simply and then remove the vacuum chamber.
- Remove the lower mold from the vacuum tank, in front of the operator, simply by lifting it and then lifting out the vacuum tank.
- Turn the table so that the position where you removed the tank matches up with the vacuum chamber under the machine.

- Open the rear door and remove the air via the slide valve of the filter-pressure regulator (see I on page 6).

- Loosen the two screws that secure the mold block plates on the mold tray (see G on page 6) and move them outward to allow the mold to be extracted.



Pay attention to your hands. Always use suitable gloves every time you hold a mold to remove it or put it on the machine. Be aware of the temperature of the sealing plate and the die cutting blades.
Pull the mold from the back of the machine and slide the new one into the guide rails until it stops. Move the mold block plates inwards and lock them again via the screws.

Restore the compressed air by pulling up the slide valve of the compressed air supply. The mold re-enters the upper bell housing.
Close the rear door.
Replace the cavity in front with the new one, turn the table and reinsert the basin and the other new cavity.

Remember to allow the new moulding time to heat up before starting with packaging.

13. MAINTENANCE

Installation, maintenance and repair operations must be carried out by skilled personnel in strict accordance with the instructions given in this manual.

- Don't wash the packaging machine with direct water jets
- Where liquid products have to be packed, the oil quality has to be checked periodically and the oil replaced frequently since the steam produced by liquids alters the lubricating properties of the oil.
- Don't operate on the machine before having disconnected it and waited for it to cool.
- The stainless steel parts have to be cleaned with water and detergent (don't use abrasive products). Don't use steel wool to avoid the formation of rust
- Check the oil level periodically; if the level is left too low the pump may be damaged. It is advisable to replace the oil completely every 500 working hours. Used oil always looks dark, cloudy or emulsified.
  Check the oil via the sight glass (see J on page 7) and use the relevant caps for draining and filling with oil (see Z & Y on page 7).
- Periodically check the chamber gasket. If it is worn, this can jeopardise the machine's efficiency and speed. If necessary, replace it making sure that the ends of the new gasket are well joined so as to avoid openings that could impede the vacuum-forming process.
- Keep the sliding guides for the vacuum tank clean.
- Keep the sealing plate clean and remove any dirt. Always perform this operation with machine off and the moulding at room temperature. Clean the black Teflon plate using only a damp cloth with alcohol. Never use tools or else that may scratch or irreparably damage the plate Teflon coating. Be very careful of the cutting blades during cleaning.
- Periodically discharge any condensate residues from the pressure regulator filter unit.
- Regularly clean the magnets and the relevant galvanised iron plate used to grip the film (model without scrap collector).
- About every 1000 working hours check the tightness of all the screws on the moulding and counter-moulding, the cutting blades and the film clamps. A loose screw may damage the cutting blades.
- Periodically clean the lower moulding and its gaskets to ensure perfect sealing.
- Remember to clean everyday the liquid which is deposited in the vacuum tanks and keep them cleaned from any external material
  Liquid in the tanks reduces the lifespan of the lubricating oil in the pump, and slows down the process of the pump attaining maximum vacuum.

13.1 VACUUM PUMP MAINTENANCE

Before carrying out any maintenance on the pump, take these simple precautions:

- **§** Always isolate the pump from the power supply so that it cannot start up accidentally.
- **§** Do not work on the pump until it is at a temperature that does not pose any danger to the operator.
- **§** Do not carry out any maintenance if you do not have all the necessary spare parts available.
- **§** Make sure that the operator is technically capable of working on vacuum pumps, and that he applies all current standards in terms of personal safety devices.
- **§** Do not carry out any maintenance operations that are not covered by this manual.

If the pump is to be switched off for a long period of time, it is advisable to run the pump with the intake closed for about 30 minutes. This will dispose of any damp in the suction chamber, preventing the rotor from rusting.

If this pakaging machine is equipped with a PFPE pump ideal to pack with high percentages of oxigen, for maintenance remember that the oil used is vegetal, not mineral like traditional pumps.
USE ONLY PFPE OIL

Scheduled maintenance:

Operation	Working hours
Oil level check	24
Oil change	500
Cleaning of the motor fan guard and general cleaning of the pump	1000
Replacing the purifier filter	2000
Changing blades	10000

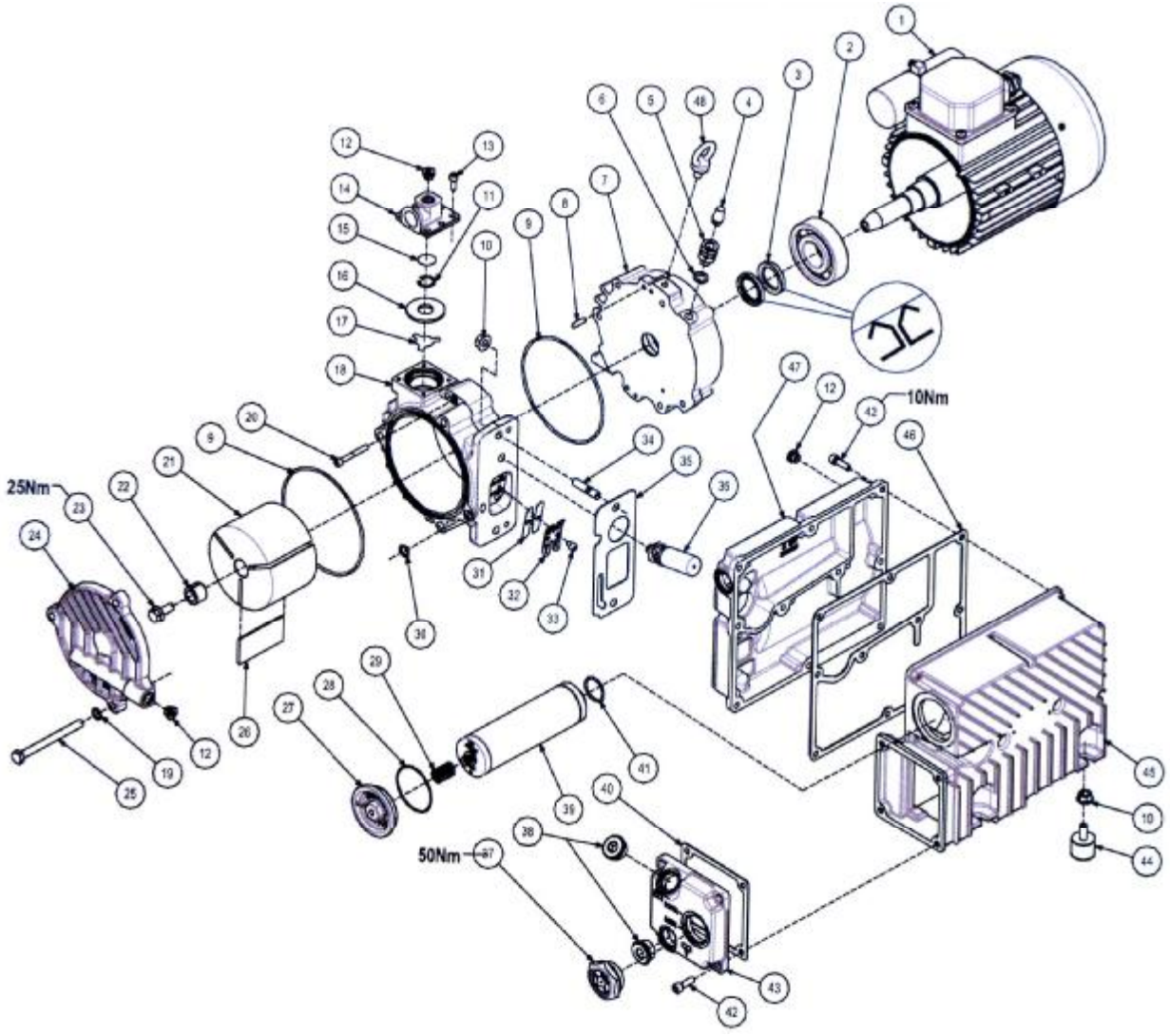
Problems linked to the operation of the pump:

PROBLEM	CAUSE/SOLUTION
A) The pump does not work	Thermal cut-out switch tripped. Check what caused it to trip and start it. Ambient temperature too low. Raise the temperature to the range allowed. Motor winding broken. Contact our service department
B) The pump does not reach the stated vacuum	Insufficient oil in the tank. Add oil Oil contaminated. Replace the oil. Discharge blocked. Check the pump's discharge couplings
C) The pump is noisy	Purifier filter deteriorated. Replace Motor's bearings damaged. Contact our service department Blades deteriorated. Contact our service department
D) Pump temperature high	Oil unsuitable. Replace the oil. Insufficient ambient ventilation. Install an additional fan Motor fan broken. Contact our service department Incorrect power supply to motor. Check power supply voltage Discharge blocked. Check the pump's discharge couplings
E) High oil consumption	Working pressure high (around atmospheric pressure). Keep level under control. Pump temperature too high See D
F) The pump loses its vacuum when switched off	Non-return valve worn (where fitted). Contact our service department
G) Oil leaks on the pump	Tank screws or caps not tight. Tighten the screws or caps Tank gasket damaged. Contact our service department Oil level sight glass not tight. Tighten the sight glass.

Spares:

Description	LB.25 (standard 25 m^3 pump)	LB.40 (optional 40 m^3 pump)
Purifier filter kit	K9601065	K9601046
Maintenance kit	K9601065/1	K9601046/1

Replacing the purifier filter: Remove the cover (27) using an adjustable spanner, and remove it along with the gasket (28) and the spring (29) attached to the cover. Remove the filter cartridge (39) and related rubber washer (41). Clean the washer seating and the surfaces that come into contact with the filter cover gasket. Refit all these pieces using new parts from the maintenance kit, and following the instructions above, in reverse order.



14. GUARANTEE

Rotopack S.r.l. guarantees the mechanical performance of the machines for a twelve month period as from the delivery date, as stated on the relevant delivery slip. The guarantee is limited to the replacement of faulty or defective parts due to the poor quality of materials or construction. The guarantee does not cover faults due to normal wear and tear, the purchaser's negligence, improper use, or parts subject to fast deterioration due to their material composition or to the nature of their use. The guarantee on electrical parts automatically expires upon the machine being commissioned. Faults or defects must be reported by fax or letter within eight days of them occurring. Failure to do so voids the guarantee. Where Rotopack S.r.l. acknowledges a fault, it undertakes to replace defective parts, provided that they have not been tampered with in an attempt to modify or fix them on the part of the customer, and provided that the purchaser has properly complied with the contract terms. Any other compensation is expressly excluded. Items to be replaced should be sent to the vendor's premises at the purchaser's expense, with the former seeing to their replacement in the shortest time possible, ex factory. Freight and installation expenses shall be borne by the purchaser. For parts installed at a later date, the guarantee only covers such parts according to the terms above.

15. WIRING DIAGRAM

16. PNEUMATIC DIAGRAM

17. TECHNICAL SUPPORT

In case of need, you may contact your dealer or a Rotopack technician, who will help you to find the best solution to your problem.

YOUR DEALER:

MR. : .....

TEL.: .....

MOBILE : .....

FAX : .....

ROTOPACK S.R.L.

TEL : 02/99044396

FAX : 02/99042582

MACHINE INSPECTION AND EQUIPMENT CERTIFICATE:

This is to certify that the machine was successfully inspected and that the machine's features meet the requirements detailed in the order.

We hereby confirm that the machine was supplied along with the relevant instruction manual, which is to be followed step by step by the operator.
We hereby state that the machine guarantee coverage rules have been fully understood and accepted.

If properly used according to the instructions provided by RotoPack S.r.l. and provided that it is kept in good working order, the machine is not dangerous for the operator.

DATE: ..... **PLACE:** .....

MACHINE: ..... **SERIAL NO:** .....

INSPECTION WAS CARRIED OUT BY ROTOPACK TECHNICIAN MR.:
.....

IN THE PRESENCE OF THE PURCHASER OR THEIR DELEGATE, MR.:
.....

INSPECTOR'S SIGNATURE: .....

SIGNATURE OF DELEGATE ATTENDING THE INSPECTION:
.....

This copy must be duly signed and returned to RotoPack S.r.l. immediately after the machine has been commissioned.