



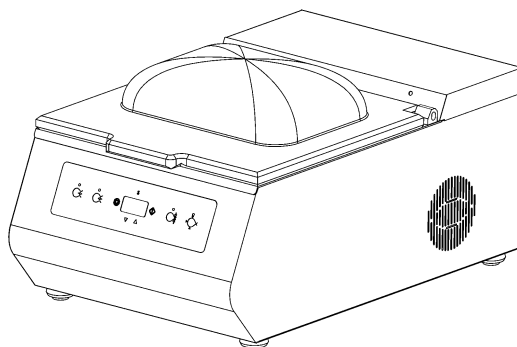
Minipack-torre S.p.A.
Via Provinciale, 54 - 24044 Dalmine (BG) - Italy
Tel. (035) 563525
E-mail: info@minipack.it
http://www.minipack.it



INSTALLATION, OPERATION AND MAINTENANCE

VACUUM PACKING MACHINE

MVS35X



BEFORE USING THE MACHINE PLEASE CAREFULLY READ THE INSTRUCTIONS

EN	English	Page 19



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TRANSLATION OF THE ORIGINAL INSTRUCTIONS

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1.1. Preface

This manual has been drawn up in compliance with the UNI 10893 standard dated July 2000. It is meant for all users in order to enable them to use the machine correctly. Keep it in a place which can be easily accessed in the proximity of the machine and which is known to all users. This manual is an integral part of the machine for safety reasons. We wish to specify the symbols in use here below in order to improve their understanding.

	ATTENTION: Accident prevention rules for the operator. This warning indicates the presence of dangers which can injure the person operating on the machine.
	ATTENTION: Hot parts. Shows the danger of burning, thus involving the risk of a serious accident for the exposed person.
	WARNING: It indicates the possibility of damaging the machine and/or its components.

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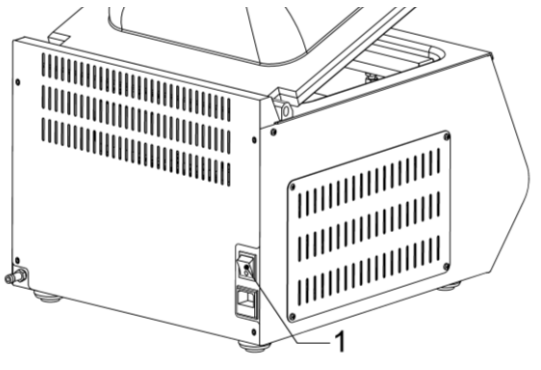
1.2. Performances of packaging machine

This machine represents what the modern technology of vacuum-packing may express at its best. It is flexible, easily programmable and cheap. It is intended to vacuum-pack foodstuffs by removing oxygen as well as any chemical and biological pollutant present in the environment. To attain the vacuum level you wish, just program the machine in order to remove almost all the air contained in the packet. Your product will preserve its organoleptic features, colour, taste, flavour and nutritive value for a long time.

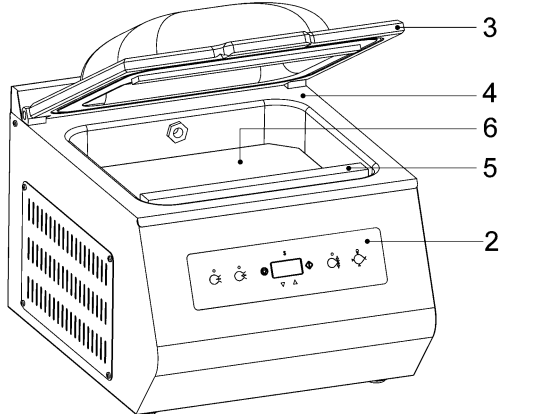
1.3. Main machine components

The main machine components are as follows:

1. Main switch
2. Control panel
3. Cover
4. Tank
5. Sealing bar
6. Table.



MVS31X



MVS35X

1.4. Technical data of the machine

MVS31X

Technical drawings of the MVS31X machine. The front view shows a width of 390 mm. The side view shows a height of 669 mm and a base width of 499 mm. The rear view shows a height of 345 mm and a depth of 287 mm. It also shows connections for a gas pressure reducer (R), gas connection (H), and electrical connections (I).

Package weight and sizes
 Width = 610 mm Length = 520 mm Height = 420 mm Weight = 40 kg

Machine weight = 38 kg

Vacuum pump = 8 m³

I = Electrical connections; H = Gas connection; R = Gas pressure reducer.

MVS35X

Technical drawings of the MVS35X machine. The front view shows a width of 390 mm and a height of 317 mm. The side view shows a height of 634 mm and a base width of 617 mm. The rear view shows a height of 171 mm and a depth of 93 mm. It also shows connections for a gas pressure reducer (R), gas connection (H), and electrical connections (I).

Package weight and sizes
 Width = 710 mm Length = 460 mm Height = 485 mm Weight = 53 kg

Machine weight = 45 kg

Vacuum pump = 10 m³

I = Electrical connections; H = Gas connection; R = Gas pressure reducer.

2.1. Pouches to use

They may be of different thickness (85÷200µm) and shall be both airtight and gastight. Only food packaging pouches can be used. The following table indicates the maximum dimensions of the pouches that can be used with the various machine models.

Machine	Pouch width open side	Pouch length closed side
MVS31X (front bar)	305mm	265mm
MVS35X (front bar)	305mm	265mm

The following table indicates the min/max temperature limits the pouches can undergo to.

Type of pouch	Minimum temperature	Maximum temperature
for cooking	-15°C	+120°C for 30 minutes
for storage	-20°C	+70°C for 2 hours; +100°C for 15 minutes.



It is recommended to refer to the technical and safety sheets of the pouches in use and to observe the corresponding instructions!

Chapter 3. Machine usage conditions

3.1. Items that may be packaged

This machine can be used to pack the majority of foodstuffs, including: fruit, fish products, dairy products, meat, delicatessen, oven ready products, gastronomic products, dried products, etc.

3.2. Items not to be packed

It is absolutely forbidden to pack the following products which might permanently damage the machine and harm operator:



- Liquids of any type and density in fragile containers
- Inflammable and explosive materials
- Gas bottles under pressure or of any type
- Bulk or volatile powders
- Any material and product which might in any way cause the user to be in a dangerous situation and damage the machine.

Chapter 4. Safety standards



4.1. Warnings

It is extremely important to read this entire chapter as it contains important information regarding risks that personnel are subject to in the event of incorrect use of the machine. These basic standards must be observed as well as specific standards applicable in the country of installation.

- The machine must be installed by trained and authorised technicians.
- This machine is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack experience and knowledge, unless they have been given supervision or instruction concerning use of the machine by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the machine.
- Keep children and animals away from the machine when running. Do not allow children to play with the pouches.
- The machine must be used only for the purpose it was built for. Any other use shall be considered “improper” and therefore dangerous.
- Never allow unauthorised personnel to perform repairs or other operations on the machinery.
- The operator must be familiar with all warnings related to the tasks in hand and always be informed by the head of the site regarding risks.
- Ensure that all clothing is tight fitting, with particular reference to cuffs or other loose clothing.
- Ensure that all operating areas and transit zones are kept clear, clean and adequately lit at all times.
- Eliminate all safety hazard conditions before using the machine and always notify the head personnel of any malfunction.

- Never use the machine in the event of fault.
- Never tamper with safety devices or circuits.
- Never perform modifications on the machine without prior authorisation from the manufacturer.
- If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.
- The electrical enclosure must remain closed during operation.
- Smoking is forbidden while the machine is operating!
- Never performs maintenance and/or adjustments to the machine during operation. Guards may only be disassembled by suitably trained and qualified maintenance engineers.
- Never operate the machine without all guards fitted. Ensure correct position of all guards before resuming normal operation.
- If it is necessary to leave the machine unattended, switch it off by turning the main switch to the "0" (OFF) position!
- The manufacturer declines all liability for damage or phisical injury caused by failure to observe safety standards.

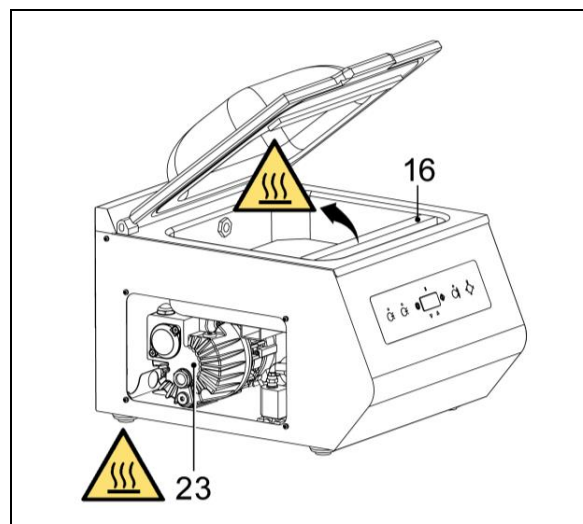
THE MACHINE CAN NOT BE USED BY UNTRAINED PERSONNEL!

	<p>During work pay attention to all hot parts of the machine. The temperature they can reach is so high that it can cause burns.</p>
	<p>Never use gaseous mixtures in presence of oxygen in a percentage higher than the atmospheric one (~ 19%).</p>

Do not touch the sealing blade (16) immediately after sealing.
Danger of burns due to hot blade.

Do not seal if the sealing wire is broken.
Replace it immediately.

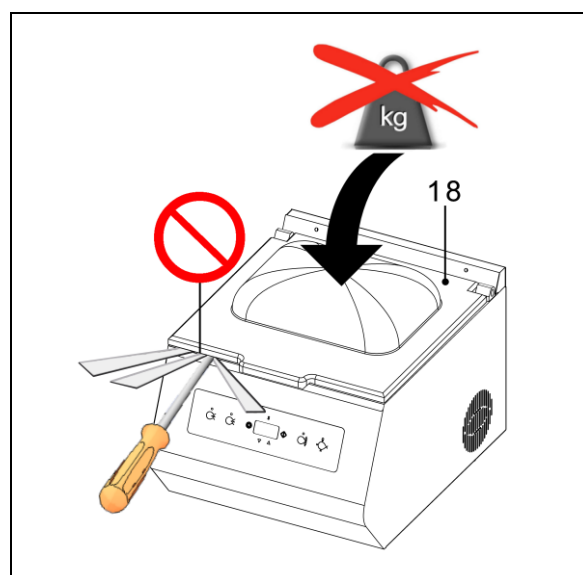
Do not touch the vacuum pump (23) just after a working cycle.
Possibility of burning due to the high temperature the pump may reach.



In case of a power failure during a working cycle when the cover is closed, do not use any tool in order to force its opening. Wait for the power supply to be restored.

Do not place any weight on the cover (18)!
 Prevent any object from falling on the cover!
 This can compromise the integrity, causing cracks or damage.

Do not proceed with packaging if the cover has cracks or is broken.
Replace it immediately.



4.2. Description of safety stickers


The following safety stickers feature on the machine:


	<ul style="list-style-type: none"> On the power input. <p>ATTENTION! Periodically check the correct insulation of the power cable and the integrity of the socket. During machine operation, the inspection panels to the electric system must be correctly fitted.</p>
	<ul style="list-style-type: none"> On the sealing bars positioned inside the tank On the vacuum pump positioned inside the machine. <p>ATTENTION! Hot members. It shows the danger of burning, thus involving the risk of a serious accident for the exposed person.</p>
<p>ATTENZIONE : Superficie calda. Evitare il contatto. WARNING : Hot surface, avoid contact. ATTENTION : Surface chauffante. Ne touchez pas.</p>	<ul style="list-style-type: none"> On the sealing bars positioned inside the tank <p>ATTENTION! Indicates the danger of burns with risk of accident in case of contact with the hot surface of the sealing bar.</p>
<p>ATTENZIONE : Per la pulizia del coperchio non utilizzare alcool o solventi ma esclusivamente acqua e sapone. WARNING : Do not use methylated spirits and solvents clean the lid, but water and soap only. ATTENTION : Pour le nettoyage du couvercle, ne pas utiliser ni alcool ni solvants. N'employer que de l'eau et savon.</p>	<ul style="list-style-type: none"> On the Plexiglas lid. <p>ATTENTION! Indicates how to clean the lid to prevent damaging it and reducing its transparency or strength.</p>

4.3. Individual protection devices

	<p>Wear safety shoes that protect feet from impacts, crushing and compression while moving or handling the machine.</p>
	<p>Wear safety gloves that protect the hands from crushing and mechanical hazards and while moving or handling the machine.</p>
	<p>Wear safety gloves that protect the hands against cutting risks while changing the sealing blades.</p>
	<p>Wear safety gloves that protect the hands against the specific risks associated with the materials to be packed (mechanical, chemical) and against coming into contact with the high temperatures present on the seals and/or sealing bars (up to 100°C).</p>
	<p>Wear safety gloves that prevent the hands from coming into contact with foodstuffs when packaging them.</p>

5.1. Transport and positioning

	<ul style="list-style-type: none"> • The appliance must be installed by qualified personnel only! • Handle with great care during transport and positioning! • Do not turn the appliance upside down or tilt it! This may cause oil to leak from the pump and damage the equipment.
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	<p>Before any movement, make sure that the lifting means is suitable for the load to be lifted! If carrying by hand, the current legislation determines the weight limit that a person can lift (see the following table). Therefore, depending on the weight to be lifted (see paragraph 1.4) and the operator who lifts, several people are needed.</p>
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AGE	MAX WEIGHT TO BE LIFTED	
	MALE	AGE
> 18 YEARS OLD	30	> 18 YEARS OLD
15-18 YEARS OLD	20	15-18 YEARS OLD

- Remove the packaging material.
- Do not install or use the appliance if damaged.
- Comply with the instructions supplied with the appliance.
- Always pay attention when moving the appliance. Always wear safety gloves.

5.2. Environmental conditions

- Lift the machine and place it on the working surface. Make sure the machine is placed in a proper environment without any inflammable and explosive materials or gas. The machine may only be installed on smooth, flat non-inflammable surfaces.
- Leave a minimal space of 0,5m around the machine so that not to obstruct air outlets.

Working environmental conditions:

- Temperature from + 5°C to + 40°C.
- Relative humidity from 30% to 90%, without condensation.

The lighting of the operation room shall comply with the laws in force in the country where the machine is installed. However, it shall be uniform and provide for good visibility in order to safeguard the operator's safety and health.

MACHINE SAFETY FACTOR = IP20

THE AERIAL NOISE MADE BY THE MACHINE IS LOWER THAN 70 dB(A)

5.3. Users

5.3.1. Loading the oil in the pump

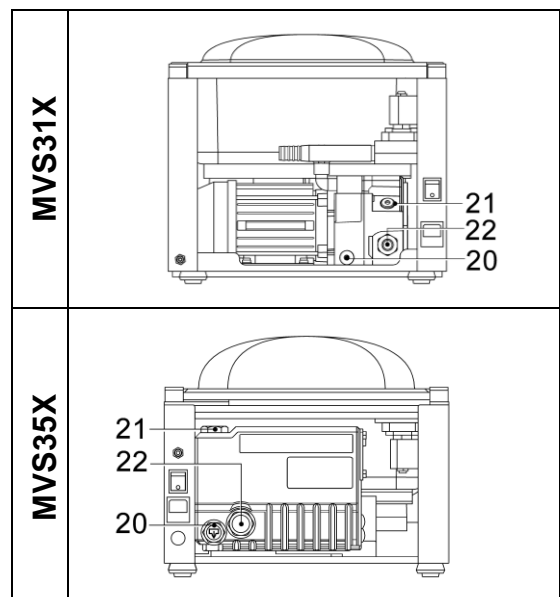
If the pump has no oil, to load, fully use the provided bottle.

The oil loading operation must be carried out by trained and authorised technical personnel.

To access inside the machine, remove the rear panel, using a screw driver to remove the fixing screws.

Remove the cap to load oil (21) using the provided wrench and fill the oil tank following the instructions indicated in the pump user manual attached to the machine.

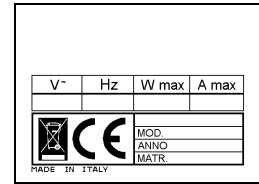
- (20) Oil discharge plug
- (21) Oil filling plug
- (22) Oil inspection plug



5.3.2. Electrical connections

Voltage (V): see data on plate
 Frequency (Hz): see data on plate
 Maximum absorbed power (W): see data on plate
 Maximum absorbed current (A): see data on plate

Note: when contacting the Manufacturer, always indicate the model and the serial number specified on the plate on the rear part of the machine.



	<p>The power line must be protected with a type A residual current device with rated residual current equal to “IΔn”, 30 mA. As a result, the maximum resistance of the earth electrode must correspond to the values indicated in the following table.</p>
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I Δ n	Maximum resistance of the earth electrode	
	(50 V)	(25 V)
3 A	16 Ω	8 Ω
1 A	50 Ω	25 Ω
500 mA	100 Ω	50 Ω
300 mA	166 Ω	83 Ω
30 mA	1666 Ω	833 Ω

	<p><u>OBSERVE HEALTH AND SAFETY REGULATIONS!</u></p> <p>If the machine is not equipped with the power supply plug, use a plug that is suitable for the voltage and amperage values described by the rating plate and that can comply with the rules in force in the installation country. <u>GROUNDING OF THE UNIT IS OBLIGATORY!</u></p> <p>Before making electrical connections, make sure the mains voltage matches the one on the plate on machine rear and that the ground contact complies with the safety rules in force. In case of doubts about the mains voltage, contact the local power supply company.</p> <p>Insert the plug on the cable from machine electrical cabinet in a mains power supply socket that can be reached easily by the operator.</p>	
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5.3.3. Gas connections

When carrying out packaging operations in modified atmospheres, use specific gas for food package in compliance with the rules in force about food additives in the country where the machine is used.
 The gas, which consists of a mixture of nitrogen, carbon dioxide and, more rarely, oxygen and other gases, is a “made to measure” gaseous mixture, depending on the product to be packaged.

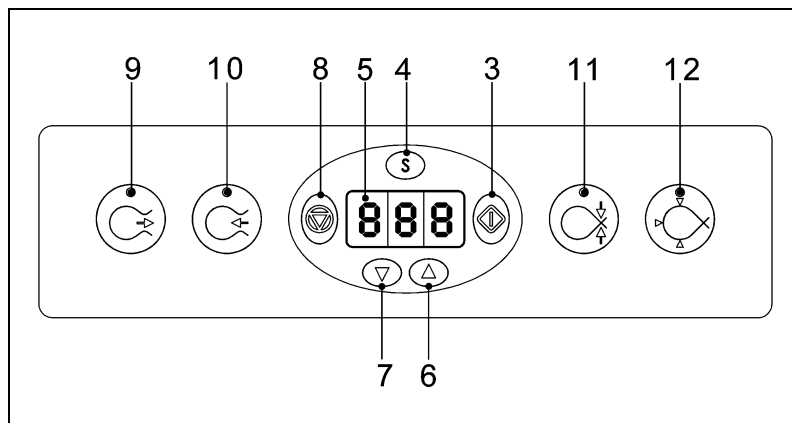
	<p>Never use gaseous mixtures in presence of oxygen in a percentage higher than the atmospheric one (~ 19%).</p>
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Connect gas attachment, in case the machine is equipped with such a device, to the gas cylinder through the proper tube (H) (see chapter 1.3.).
 Pressure of gas plant has to be set on about 2 atm., bearing in mind the max. working pressure is 4 atm.
 If the pressure is not correct, act on the knob of the pressure reducer (R) (see chapter 1.3.).

6.1. Control panel

The machine is fitted with a control panel, from which all programming and operation functions can be set.

- 3 Start button
- 4 Selection button
- 5 Display. Displays selected functions and relative settings
- 6 Button "INCREASE". Increases set function values
- 7 Button "DECREASE". Reduces set function values
- 8 Stop button
- 9 Led for vacuum and extra vacuum function
- 10 Led for gas function
- 11 Led for sealing function
- 12 Led for air re-immission function



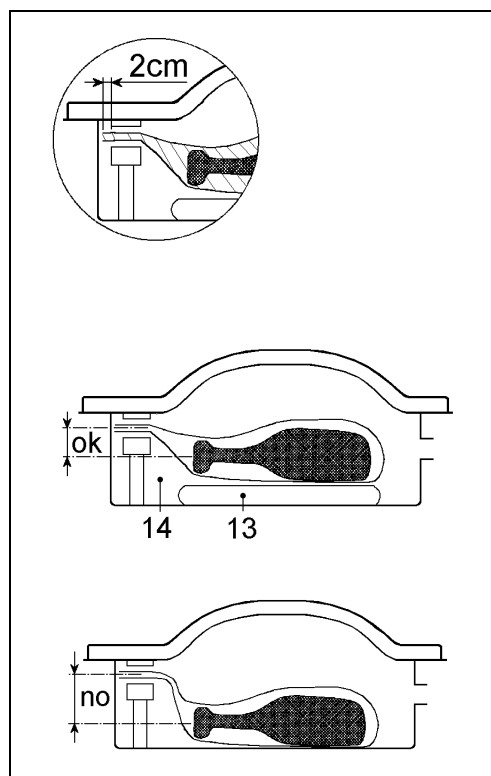
6.2. Use

Switch the machine on by pressing the main switch located at the rear ON and wait a few seconds until the display shows the last program performed (e.g. P1).

Place the product to be packaged inside the pouch.
 Place the pouch inside the tank and on the sealing bar in a way as linear as possible.
 Try to prevent the pouch from wrinkling. Wrinkles might negatively affect the hermetic seal formed by sealing. Pouches shall be at least 2 cm beyond the sealing.
 If the "GAS" function is on, the pouch must be positioned with the strip open on the gas nozzle on one side of the sealing bar.

Close the cover and press the Start button (3).

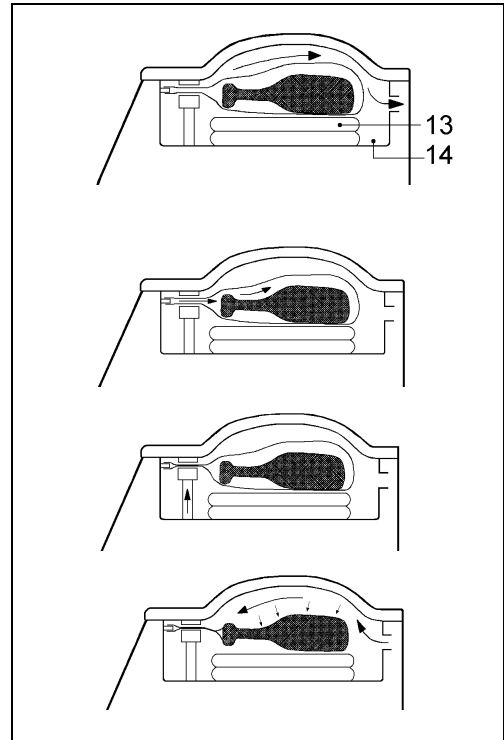
Note: When the product dimensions allow, we recommend using some tables (13) as shimming the product facilitates positioning the pouch in relation to the sealing bar.
 Moreover, it allows decreasing the volume of the tank (14) and, therefore, the amount of air to be removed, speeding up the packaging cycle.



Packaging cycle

The packaging cycle is sub-divided into four phases:

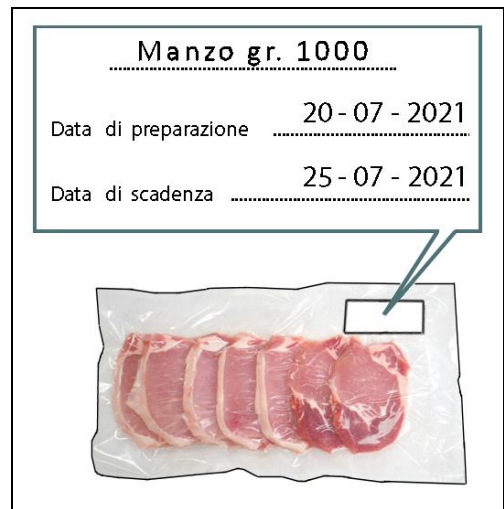
1. Vacuum phase during which all the air contained in the tank and in the pouch is extracted.
During the vacuum stage, the display shows the progress (in percentage) until the set value is reached.
The LED is on (9).
2. Gas injection phase (if the machine is equipped with a gas plant).
During the gas injection stage, the display shows progress in percentage until the set value is reached.
The LED is on (10).
3. Sealing phase during which the packet is sealed.
During the sealing stage, the display shows progress in seconds until the set value is reached.
The LED is on (11).
4. Stage of air inlet back into the tank.
The LED is on (12).
Ambient pressure is restored in the tank.
Now you can open the cover, as soon as the display shows the program number (e.g. P1).
Machine is ready for a new packing cycle.



After packaging, keep the food cool or chilled (depending the packed food), marking the pouches or containers with a label indicating the contents, preparation date and expiry date.

The sous-vide system prolongs food storage times.

The sous-vide process must be carried out correctly in full compliance with timing and temperature guidelines.



6.3. Selecting the programs and setting up the parameters

The machine has 10 selectable programs:

- **P1, P2, P3, P4:** standard programs
- **P5:** program for “outside vacuum”
- **t1, t2, t3, Sr1, Sr2:** special programs.

To select the program number, just press the buttons INCREASE (6) and DECREASE (7).


Press button (4) to enter scheduling of the program shown at the moment.

By pressing again button (4), all parameters for the selected program will appear one after the other.

Push buttons (6) and (7) to increase or decrease the value of the parameter shown. The changes are stored when, scrolling all the parameters of the program, it goes back to display the program number (e.g. P1).

Note: during the programming stage the **Stop** (8) button lets you go back to the previous parameter.

6.3.1. Standard programs P1, P2, P3, P4.

	These are standard programs consisting of 4 modifiable parameters: vacuum, extravacuum, gas, sealing.
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Parameter “Vacuum”

It is possible to set a value from 35.0 to 99.9%. The recommended vacuum percentage is 99.9%.

For other settings refer to the attached table.

Scheduling of vacuum parameter is signaled through LED (9).

Food	Vacuum Recommended
Meat	99.9%
Cheese	99.9%
Grated cheese	35 - 50%
Fruit	99.9%
Jam and cream	99.9%
Soups	99.9%
Sandwiches	60 - 70%
Pasta	99.9%
Fish, shellfish	99.9%
Sausages	99.9%
cured meats	99.9%
Vegetables	99.9%
Fresh vegetables (salad, tomatoes)	35 - 50%

Parameter “Extravacuum”

If the vacuum value is set to 99.9%, press button (4) to program the EXTRAVACUUM parameter indicated by the letter E in the last digit on the display.

This value can be set to between 0 and 60 seconds. This is the length of time that the pump continues to extract air from the hood after the machine has reached the programmed maximum vacuum level. This function is useful for porous products where it is particularly difficult to extract the air (e.g. meat).

Note: if the programmed VACUUM value is less than 99.9%, the EXTRAVACUUM function is not displayed, and the system proceeds to the subsequent parameter (GAS).

Parameter “Gas”

It is possible to set a value from 0 to 60%. Such a parameter cannot be higher than the vacuum one, otherwise you will obtain an opposite function. Scheduling of gas parameter is signaled through LED (10). If the gas LED (10) is flashing, it means the gas cylinder is not properly connected and machine will not start. Connect it properly.

Note: When scheduling a program “vac + gas”, the minimum residual vacuum percentage soon after gas immission should be higher than 60%.

Example: VAC 99.9%
GAS 40%

Residual vacuum (99.9 - 40) = 59.9%

Parameter “Sealing”

It is possible to set a value from 0.5 to 4 seconds. For the first working cycles it is recommendable to set a sealing time of about 1.6 seconds and then lower it to prevent the teflon tape from burning. Scheduling of sealing time parameter is signaled through LED (11).

The following table indicates the sealing time we recommend setting according to the type and thickness of the pouches.

Type of pouch	Pouch thickness (µm)	Sealing time (seconds)
Smooth for cooking	85 – 95	1.3 – 1.5
Smooth for storage	85 – 95	1.3 – 1.5
Smooth made of aluminium	120 – 140	2.0 – 2.5
Bellow made of aluminium (it can be packed only with "sealing counterbar"; optional)	120 – 140	2.5 – 3.0

6.3.2. Program for outside vacuum P5

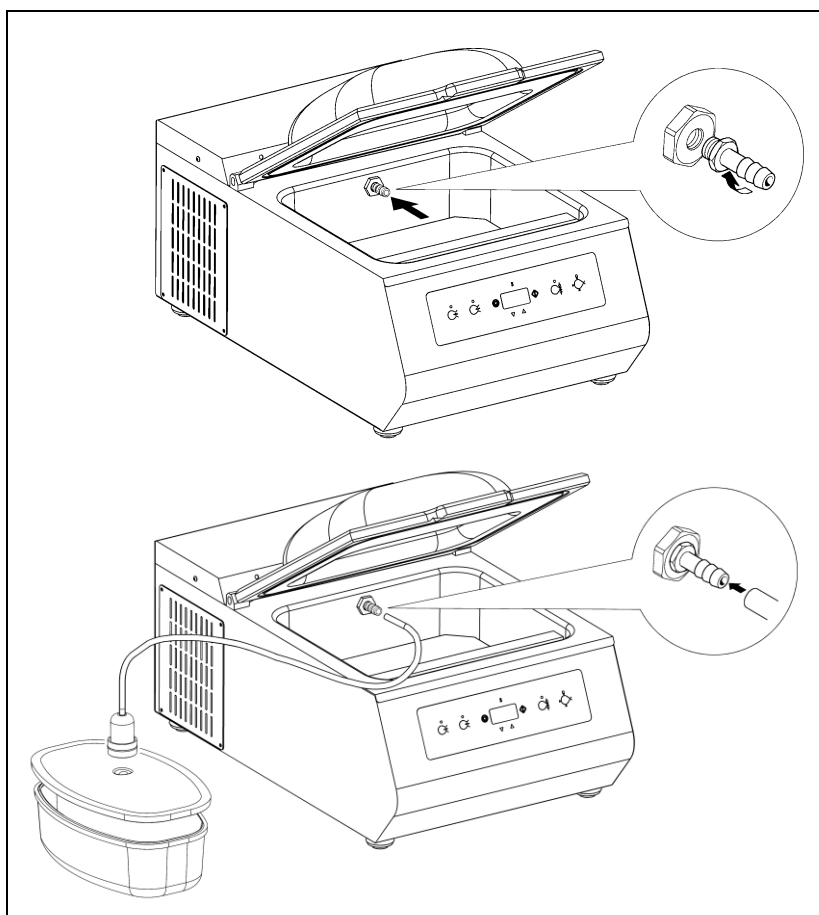
It is the "Outside Vacuum" program to be used for removing air from specific containers that can be closed hermetically (not supplied with this product).

In this program parameters "vacuum" and "extravacuum" may be set.

P5

Screw on the "outside vacuum" fitting (not supplied with this product).

Connect this fitting to the container using the intake pipe. With cover open, start the program by pressing the Start (3) button.



Parameter	P1	P2	P3	P4	P5 (External Vacuum)
Vacuum (values expressed in %)	Min. = 35.0 Max. = 99.9 Default = 99.9	Min. = 35.0 Max. = 99.9 Default = 97.5	Min. = 35.0 Max. = 99.9 Default = 95.0	Min. = 35.0 Max. = 99.9 Default = 35.0	Min. = 35.0 Max. = 99.9 Default = 99.9
Extravacuum (values expressed in seconds)	Min. = E00 Max. = E60 Default = E00	Min. = E00 Max. = E60 Default = E00	Min. = E00 Max. = E60 Default = E00	Min. = E00 Max. = E60 Default = E00	Min. = E00 Max. = E60 Default = E00
Gas (values expressed in %)	Min. = 00.0 Max. = 60.0 Default = 00.0	Min. = 00.0 Max. = 60.0 Default = 00.0	Min. = 00.0 Max. = 60.0 Default = 00.0	Min. = 00.0 Max. = 60.0 Default = 00.0	
Sealing (values expressed in seconds)	Min. = 0.5 Max. = 4.0 Default = 1.5	Min. = 0.5 Max. = 04.0 Default = 1.5	Min. = 0.5 Max. = 04.0 Default = 1.5	Min. = 0.5 Max. = 4.0 Default = 1.5	

6.3.3. Special programs t1, t2, t3



Infusion cycle.

This is the program for marinading/infusion of foodstuffs.

- Insert the food with the herb marinade in the pouch and place it in the tank,
- Set packaging parameters (vacuum, infusion time, gas, sealing).
 Note: set the infusion time (iC1÷iC10) by pressing buttons (6) and (7);
 iC1 = 1minute
 iC10 = 10 minutes.
- To start the cycle: close the cover and press the Start button (3),
- Open the cover as soon as the display shows (t1).



Compression.

This is the program to soften meat and meat products. This takes place by subjecting the food to several repetitions of vacuum cycles, in order to soften the fibrous structure.

- Insert the food in the pouch and place it in the tank,
- Set packaging parameters (vacuum, extravacuum, vacuum cycle repetitions, sealing).
 Note: set the number of vacuum cycle repetitions (t.02÷t.15) by pressing buttons (6) and (7);
 t.02 = 2 cycles
 t.15 = 15 cycles.
- To start the cycle: close the cover and press the Start button (3),
- Open the cover as soon as the display shows (t2).



Liquid time.

This is the program to set the sealing stage of pouches containing liquid products (soups, etc.). Based on the temperature of the liquid to be packed in the pouch, set the value "Lt" which automatically programs execution of the seal.

- Insert the food in the pouch and place it in the tank,
- Set packaging parameters (vacuum, Lt gradient, gas, sealing).
 Note: set the "Lt" gradient value by pressing buttons (6) and (7);
 Lt.1 = for products with temperature ~ 40÷45°C
 Lt.2 = for products with temperature ~ 45÷55°C
 Lt.3 = for products with temperature ~ 55÷70°C
 Lt.4 = for products with temperature ~ 70÷80°C
 Lt.5 = for products with temperature ~ 80÷85°C.
- To start the cycle: close the cover and press the Start button (3),
- Open the cover as soon as the display shows (t3).

Parameter	t1 Infusion cycle	t2 Compression	t3 Liquid time
Vacuum (values expressed in %)	Min. = 35.0 Max. = 99.9 Default = 99.9	Min. = 35.0 Max. = 99.9 Default = 99.9	Min. = 35.0 Max. = 99.9 Default = 99.9
Extravacuum (values expressed in seconds)		Min. = E00 Max. = E60 Default = E00	
Brewing time (values expressed in minutes)	Min. = iC1 Max. = iC10 Default = iC1		
Repetition of vacuum cycles (values expressed as number)		Min. = t.02 Max. = t.15 Default = t.02	
Temperature gradient			Min. = Lt.1 Max. = Lt.5 Default = Lt.1
Gas (values expressed in %)	Min. = 00.0 Max. = 60.0 Default = 00.0		Min. = 00.0 Max. = 60.0 Default = 00.0
Sealing (values expressed in seconds)	Min. = 0.0 Max. = 4.0 Default = 1.5	Min. = 0.0 Max. = 4.0 Default = 1.5	Min. = 0.0 Max. = 4.0 Default = 1.5

6.3.4. Special programs Sr1, Sr2

Sr1**Condition.**

This program must be used in the following situations:

- After the machine has been inactive for a long period.
- After having sealed products with high humidity content (e.g. soups).
- When noticing a decrease in performance of the machine (e.g.: time to reach vacuum is increased or it is not reached at all).

This program lasts about 10 minutes and ensures complete cleaning of the pump, removing any liquid emulsion that might be found in the oil. Do not seal any product while this program is running.

This program has no set variables.

- To start the cycle: close the cover with empty tank and press the Start button (3),
- Open the cover as soon as the display shows (Sr1).

Sr2**Service.**

This program should be used when machine malfunctioning occurs.

This program performs a complete cycle of pouch vacuum and sealing and has no settable variables.

- Insert the food in the pouch,
- Place the pouch inside the tank,
- To start the cycle: close the cover and press the Start button (3),
- Open the cover as soon as the display shows (Sr2).

Should execution of this packaging cycle be faulty contact the technical support.

Stop button (8)

- If this button is pressed during the vacuum stage, suction stops immediately and the machine proceeds by sealing the pouch automatically. This function must be used for packing liquid and hot products, which may boil during the vacuum cycle.
- If it is pressed for a few seconds, with machine inoperative (when the display shows the program no.) the display shows the software version of the electronic board.

Stand-by

After 20 minutes of inactivity the machine enters stand-by mode (condition that assures energy savings). During this stage the Led is on (9).

Press button (4) to reactivate the machine.

6.4. Alarm messages

The electronic board detects a series of alarms that are indicated by the following messages, which appear on the display (5):

Alarm	Cause	Solution
Er0	Eprom Error. The electronic board is blocked.	Press the STOP button (8). Switch the machine off and back on.
Er1	Data configuration error.	Press the STOP button (8) (the programs are set as default). Switch the machine off and back on.
Er2	Calibration error.	Press the STOP button (8) (the calibration is set as default). Switch the machine off and back on. Perform a new calibration.
Er3	Cycle counter error.	Press the STOP button (8) (the counters are reset). Switch the machine off and back on.
Er4	Faulty sealing relay.	Contact the technical assistance service.
Er5	Vacuum Timeout. Impossible to reach the set vacuum value.	Press the STOP button (8). Switch the machine off and back on. Ensure the set vacuum percentage is correct. Ensure the cover gasket is not dirty or worn. Make sure the cover closes correctly. Perform a new calibration.
Er6	Vacuum gradient, Increase is not reached.	Press the STOP button (8). Ensure the set vacuum percentage is correct. Ensure the cover gasket is not dirty or worn. Make sure the cover closes correctly. Run the program Sr1 "Condition" to clean the pump from any oil emulsion.
Er7	Gas timeout. Gas cylinder empty. The set gas percentage is insufficient.	Press the STOP button (8). Check the set gas percentage in the program. Switch the machine off and check the gas cylinder.
Er8	Air return timeout. Ambient pressure is not reached in the tank at the end of the program. Problem with air return valve (faulty or dirty).	Press the STOP button (8). Switch the machine off and back on.
oiL	Oil maintenance. The machine has exceeded the number of cycles beyond which oil replacement is required.	This alarm is not the blocking type, and it can be bypassed by pressing the STOP button (8). It only appears when the machine is turned on. Contact the technical assistance service.

If the alarm persists even after having carried out the operations and checks indicated for resetting the machine, contact the technical assistance service.

7.1. Precautions for ordinary maintenance interventions

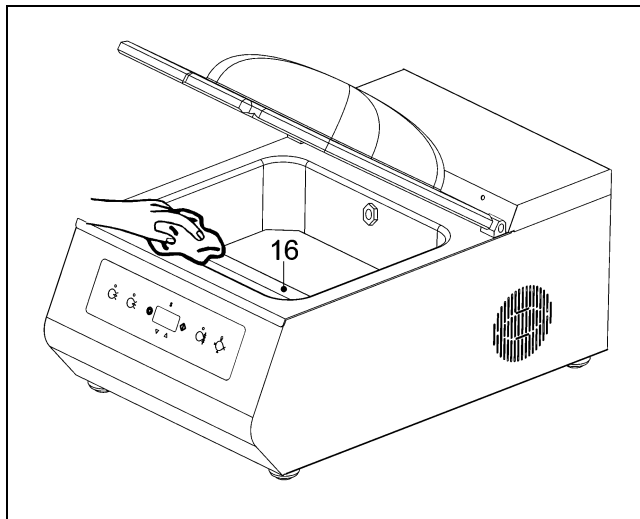
ORDINARY MAINTENANCE, MUST BE EXECUTED BY QUALIFIED STAFF APPROPRIATELY TRAINED.



Before any routine maintenance switch the machine off by acting on the main switch and remove the plug from the mains socket.
Disconnect gas plant (if installed).
Wait for the machine to cool down.

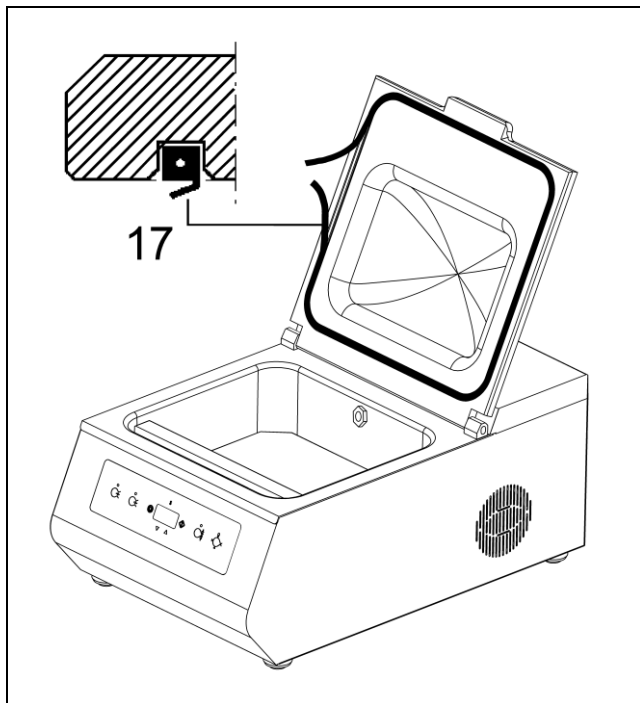
7.2. Cleaning of the sealing bar

Use a dry cloth to remove any film residue on the sealing bar (16).

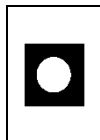


7.3. Replacement of the cover gasket

When the cover gasket (17) is worn out, replace it. This will improve the efficiency of the machine and increase its speed rate. Replacement is very easy. After having removed the gasket which has worn out, clean its seat and insert the new gasket in a linear way. Make sure its ends are joined. Leave no opening which might prevent the product from being properly vacuum-packed.

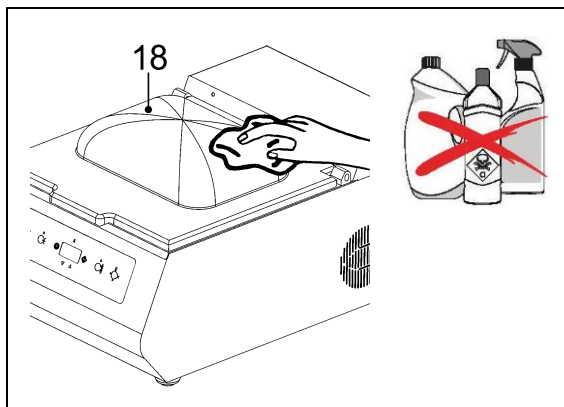


7.4. Cleaning machine



To clean the Plexiglas cover (18), clean both the outer and the inner side with water and soap only. Never use detergents or solvents which might damage the cover (18) and reduce its transparency as well as its resistance.

Check the state of the cover on a regular basis, it must in good condition, completely clean, and must not display any yellowing or increase in opacity. If any of the above defects are observed, replace the cover.



The Plexiglas cover must be replaced ever 10 years!



Use normal detergents for stainless steel to clean the case and the internal tank.
Do not use chlorine-based detergents (hydrochloric acid, sodium hypochlorite, etc.), even if diluted. Do not use abrasive agents, metal wool or any abrasive sponge to clean the surfaces.
Do not use detergents for silver.
Do not clean the machine using water jet or vapour.

7.5. Vacuum pump maintenance

It is very important to regularly service the pump to ensure extended and correct operation. For any maintenance operation, eg level and oil quality check, oil and filter replacement, cleaning, etc., comply with the instructions indicated on the pump manual.

7.6. Problem solving

Problem	Cause	Solution
The pouch is not sealed correctly	<ul style="list-style-type: none"> The sealing time is not correct. The cover gasket is dirty or worn. The pouch is not placed correctly on the sealing bar. The sealing bar is worn (the Teflon coating is burnt). The blade placed under the Teflon of the sealing bar is broken. 	<ul style="list-style-type: none"> Change the sealing time. Clean or replace the cover gasket (contact the Technical Assistance Service for a replacement). Position the pouch correctly. Replace the sealing bar (contact the Technical Assistance Service for a replacement). Replace the blade (contact the Technical Assistance Service for a replacement).
Final vacuum is poor	<ul style="list-style-type: none"> The set vacuum percentage is incorrect. The cover gasket is dirty or worn. The cover is not closed correctly. 	<ul style="list-style-type: none"> Change the vacuum percentage. Clean or replace the cover gasket (contact the Technical Assistance Service for a replacement). Close the cover correctly. Make sure that objects or dirt are not found between the cover and tank.
The cover does not open	<ul style="list-style-type: none"> No power supply. 	<ul style="list-style-type: none"> Wait until the power supply is restored.

If the machine does not work properly after the above-mentioned checks, contact the assistance service describing the detected defect.

7.7. Disassembling, demolition and elimination of residuals


ATTENTION!

All operations about disassembling and demolition must be done by qualified personnel with mechanical and electrical expertise required to work in security conditions.

Proceed as follows:

- disconnect machine from power mains
- disconnect the machine from the gas system (if installed)
- disassemble components
- drain the oil from the pump.

All wastes must be treated, eliminated or recycled according to their classification and to the procedures in force established by the laws in force in the country the equipment has been installed.



The symbol indicates that this product shall **not** be treated as household waste.

By assuring that the product will be properly disposed of, you will facilitate the prevention of potential negative effects for the environment and the man's health, which might be otherwise caused by the improper waste treatment of this product.

For more detailed information about the recycling of this product, please contact the product seller or, as an alternative, the after-sales service or the corresponding waste treatment service.

Chapter 8. Guarantee

8.1. Guarantee conditions

The guarantee runs for 12 months and goes into force on the installation date of the machine. The guarantee covers free replacement or repair of any parts due to defects arising from faulty material. The repairs or replacement are usually carried out at the manufactures, with transport or workmanship at buyer's charge. If the repair or replacement is carried out at the buyer's place, he shall bear the travelling, transfer and workmanship charges. Work under guarantee can be carried out exclusively by the manufacturer or by the authorised dealer. In order to be entitled to repairs under the guarantee, the faulty part must be sent for repair or replacement to the manufacturer or his authorised dealer. The return of such repaired or replaced part will be considered to be the performance of the guarantee.

The guarantee is voided:

- in case of inappropriate installation, power supply, misuse and mishandling by unauthorised persons
- in case of changes made to the machine without prior agreement in writing by the manufacturers
- if the machine is no longer the property of the first buyer.

The manufacturer declines any responsibility for damage to persons or things in case of inappropriate installation or connection to the power mains or omission of connection to earth or in case of any mishandling of the machine.

The manufacturer undertakes to carry out any variations and changes made necessary by technical and operating requirements.

**IN THE EVENT OF DISPUTES THE COURT OF BERGAMO (ITALY)
SHALL HAVE SOLE JURISDICTION.**



IT	DICHIARAZIONE CE DI CONFORMITA'	EL	ΔΗΛΩΣΗ ΠΙΣΤΟΠΟΙΗΣΗΣ CE
EN	CE DECLARATION OF CONFORMITY	CS	ES PROHLÁŠENÍ O SHODĚ
DE	KONFORMITÄTSEKTLÄRUNG	NL	CE GELIJKVORMIGHEIDSVERKLARING
FR	DECLARATION CE DE CONFORMITE'	FI	EY-VAATIMUSTENMUKAISUUSVAKUUTUS
ES	DECLARACIÓN CE DE CONFORMIDAD	RU	ДЕКЛАРАЦИЯ СООТВЕТСТВИЯ CE
SV	ÖVERENSTÄMMELSEFÖRKLARING EC	한국어	적합성의 CE 선언
PT	DECLARAÇÃO CE DE CONFORMIDADE		

IT	Noi:	SV	Vi:	FI	Me:
EN	We:	PT	Nós:	RU	Мы:
DE	Wir:	EL	Μείς:	한국어	자사:
FR	Nous:	CS	My:		
ES	Nosotros:	NL	Wij:		

MINIPACK-TORRE S.p.A.
Via Provinciale, 54 – 24044 Dalmine (BG) - Italy

IT dichiariamo sotto la nostra esclusiva responsabilità che il prodotto
 EN declare under our responsibility that the product
 DE erklären unter unserer ausschließlichen Verantwortung, dass das in dieser Erklärung genannte Produkt
 FR déclarons sous notre exclusive responsabilité que le produit
 ES declaramos bajo nuestra exclusiva responsabilidad que el producto
 SV förklarar under eget ansvar, att produkten
 PT declaramos sob a nossa exclusiva responsabilidade que o produto
 EL δηλώνουμε υπεύθυνα ότι το προϊόν
 CS prohlašujeme výhradně na vlastní zodpovědnost, že produkt
 NL verklaren op onze exclusieve verantwoordelijkheid dat het product
 FI vakuutamme yksinomaisella vastuullamme, että tuote
 RU под нашу исключительную ответственность заявляем, что данное изделие
 한국어 자사의 독립적인 책임 하에 다음을 선언합니다. 제품

IT	MACCHINA CONFEZIONATRICE TIPO:	SV	PACKNINGSMASKIN TYP:	FI	PAKKAUSKONE TYYPPI:
EN	PACKAGING MACHINE MODEL:	PT	MÁQUINA CONFECCIONADORA TIPO:	RU	УПАКОВОЧНАЯ МАШИНА ТИПА:
DE	VERPACKUNGSMASCHINE TYP:	EL	ΜΗΧΑΝΗ ΣΥΣΚΕΥΑΣΙΑΣ ΤΥΠΟΥ:	한국어	포장 기계 유형:
FR	MACHINE D'EMBALLAGE MODELE:	CS	BALICI SROJ MODEL:		
ES	MÁQUINA CONFECCIONADORA TIPO:	NL	VERPAKKINGSMACHINE TYPE:		

MVS31X

n° /

MVS35X

n° /

IT è conforme ai requisiti essenziali di sicurezza e a tutte le disposizioni pertinenti delle direttive applicabili
 EN conforms to the essential safety requirements and all the provisions of the applicable directives
 DE entspricht den grundlegenden Sicherheitsanforderungen und allen betreffenden Bestimmungen der einschlägigen Richtlinien
 FR est conforme aux exigences essentielles de sécurité et à toutes les dispositions pertinentes des directives applicables
 ES cumple los requisitos fundamentales de seguridad y todas las normas pertinentes de las directivas aplicables
 SV uppfyller de väsentliga säkerhetskraven och relevanta bestämmelser i gällande direktiv
 PT é conforme os requisitos essenciais de segurança e a todas as disposições pertinentes das directivas aplicáveis
 EL συμμορφώνεται με τις βασικές απαιτήσεις ασφαλείας και όλες τις συναφείς διατάξεις των εφαρμοσίμων οδηγιών
 CS splňuje základní požadavky na bezpečnost a všechna příslušná ustanovení platných směrnic
 NL conform is met de essentiële veiligheidsvereisten en met alle pertinente bepalingen van de richtlijnen die van toepassing zijn
 FI vastaa kaikkia olennaisia turvallisuutta koskevia vaatimuksia ja kaikkia sovellettävien direktiivien asiaa koskevia määräyksiä
 RU соответствует основным требованиям безопасности и всем соответствующим положениям в действующих директивах
 한국어 은 필수 안전 요구사항들과 적용할 수 있는 지침들의 관련된 모든 규정을 준수합니다

2006/42/CE, 2014/30/UE, 2014/35/UE

IT E inoltre dichiariamo che sono state applicate le seguenti norme armonizzate
 EN And furthermore we declare that the following rules have been applied
 DE außerdem bestätigen wir, dass folgende harmonisierte Richtlinien angewendet wurden
 FR Nous déclarons également que les normes harmonisées suivantes ont été appliquées
 ES Además declaramos que han sido aplicadas las siguientes normas armonizadas
 SV Dessutom förklarar vi, att följande harmoniserade normer har använts
 PT E, além disso, declaramos que foram aplicadas as seguintes normas harmonizadas
 EL Επίσης δηλώνουμε ότι εφαρμόστηκαν οι εξής εναρμονισμένες προδιαγραφές
 CS A kromě toho prohlašujeme, že byly aplikované následující harmonizované normy
 NL We verklaren bovendien dat de volgende geharmoniseerde normen worden toegepast
 FI Tämän lisäksi vakuutamme, että olemme soveltaneet seuraavia yhdenmukaistettuja standardeja
 RU Также мы заявляем, что были применены следующие согласованные нормативы
 한국어 또한 일치되는 다음 규범들이 적용되었음을 선언합니다

EN 12100:2010, EN 61000-6-3:2007, EN 61000-6-1:2007, EN 60335-1:2013

IT Persona autorizzata a costituire il Fascicolo Tecnico: Responsabile Ufficio Tecnico
 EN Person authorized to draft the Technical File: Head of the Technical Dept
 DE Zur Erstellung des Technischen Merkkefts befugte Person: Verantwortlicher der Technischen Abteilung
 FR Personne autorisée à constituer le Fascicule Technique : Responsable Bureau Technique
 ES Persona autorizada a elaborar el Fascículo Técnico: Responsable del Departamento Técnico
 SV Person med behörighet att skapa den Tekniska Dokumentationen: Tekniskt ansvarig
 PT Pessoa autorizada a compilar o Processo Técnico: Responsável pelo Gabinete Técnico
 EL Άτομο εξουσιοδοτημένο να καταρτίσει το Τεχνικό Τεύχος: Υπεύθυνος Τεχνικού Γραφείου
 CS Osoba autorizovaná k vystavení Technické dokumentace: Vedoucí technického oddělení
 NL Persoon bevoegd om het technisch dossier op te stellen: Verantwoordelijke technische dienst
 FI Teknisten asiakirjojen laatimiseen valtuutettu henkilö: Teknisen toimiston vastuuhenkilö
 RU Лицо, уполномоченное для составления технического файла: начальник технического отдела
 한국어 기술 파일을 제조하도록 공인된 인력: 공식 기술 책임자

Dalmine,

Torre P. Fabio Emanuele

IT Consigliere Delegato
 EN Managing Director
 DE Geschäftsführer
 FR Directeur Général
 ES Consejero Delegado

SV Verkställande Direktör
 PT Conselheiro Delegado
 EL Ο Διευθύνων Σύμβουλος
 CS Generální ředitel
 NL Gedelegeerd bestuurder

FI Toimitusjohtaja
 RU Управляющий директор
 한국어 대표 이사



IT	Queste istruzioni sono disponibili nelle lingue italiano, inglese, tedesco, francese, spagnolo, portoghese, olandese, svedese, finlandese, danese, greco, ceco, russo, cinese, coreano, giapponese. In caso necessitate di una lingua diversa da quelle che avete ricevuto a corredo con la macchina, verificate la disponibilità contattando la casa costruttrice.
EN	These instructions are available in Italian, English, German, French, Spanish, Portuguese, Dutch, Swedish, Finnish, Danish, Greek, Czech, Russian, Chinese, Korean, and Japanese. Should you require a different language to the one supplied with the machine, please contact the manufacturer for availability.
DE	Die vorliegende Anleitung ist in den Sprachen Italienisch, Englisch, Deutsch, Französisch, Spanisch, Portugiesisch, Niederländisch, Schwedisch, Finnisch, Dänisch, Griechisch, Tschechisch, Russisch, Chinesisch, Koreanisch und Japanisch erhältlich. Sollte die Anleitung in einer anderen Sprache als jener, die mit der Maschine mitgeliefert wurde, benötigt werden, bitte beim Hersteller anfragen, ob sie verfügbar ist.
FR	Ces instructions sont disponibles en italien, anglais, allemand, français, espagnol, portugais, néerlandais, suédois, finlandais, danois, grec, tchèque, russe, chinois, coréen, japonais. S'il faut une langue différente de celles reçue avec la machine, en vérifier la disponibilité en contactant le Fabricant.
ES	Estas instrucciones están disponibles en italiano, inglés, alemán, francés, español, portugués, holandés, sueco, finlandés, danés, griego, checo, ruso, chino, coreano, japonés. Si necesita un idioma diferente del que ha recibido con la máquina, compruebe la disponibilidad poniéndose en contacto con el fabricante.
SV	Dessa instruktioner finns på italienska, engelska, tyska, franska, spanska, portugisiska, holländska, svenska, finska, danska, grekiska, tjeckiska, ryska, kinesiska, koreanska och japanska. Om du behöver ett annat språk än de som tillhandahålls med maskinen, kontrollera tillgängligheten genom att kontakta tillverkaren.
PT	Estas instruções estão disponíveis nas línguas italiana, inglesa, alemã, francesa, espanhola, português, holandesa, sueca, finlandesa, dinamarquesa, grega, checa, russa, chinesa, coreana e japonesa. Se for necessário escolher um idioma diferente daquele recebido com a máquina, controlar a disponibilidade contactando o fabricante.