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INSTALLATION, OPERATION AND MAINTENANCE

VACUUM PACKING MACHINE

- **MVS41 X**
- **MVS45 X**
- **MVS45L X**
- **MVS52 X**
- **MVS50 X**
- **MVS65 X**
- **MVS52 DV X**

BEFORE USING THE MACHINE PLEASE CAREFULLY READ THE INSTRUCTIONS

EN	English	Page 20



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TRANSLATION OF THE ORIGINAL INSTRUCTIONS

	Page
Chapter 1. Description	
1.1. Preface.....	21
1.2. Performances of packaging machine.....	21
1.3. Technical data of the machine.....	21
Chapter 2. Pouches features	
2.1. Pouches to use.....	24
Chapter 3. Machine usage conditions	
3.1. Items that may be packaged.....	24
3.2. Items not to be packed.....	24
Chapter 4. Safety standards	
4.1. Warnings.....	24
4.2. Description of safety stickers.....	26
4.3. Individual protection devices.....	26
Chapter 5. Machine installation	
5.1. Transport and positioning.....	27
5.2. Environmental conditions.....	27
5.3. Users.....	28
5.3.1. Loading the oil in the pump.....	28
5.3.2. Electrical connections.....	28
5.3.3. Gas connections.....	29
Chapter 6. Machine adjustment and setting up	
6.1. Adjustment.....	30
6.1.1. Control panel.....	30
6.1.2. Switching the machine on.....	31
6.1.3. Program selection and variable setting.....	31
6.2. Packaging.....	33
6.3. Alarm messages.....	34
Chapter 7. Ordinary maintenance	
7.1. Precautions for ordinary maintenance interventions.....	35
7.2. Cleaning of the sealing bar.....	35
7.3. Replacement of the cover gasket.....	35
7.4. Cleaning machine.....	36
7.5. Vacuum pump maintenance.....	36
7.6. Problem solving.....	36
7.7. Disassembling, demolition and elimination of residuals.....	37
Chapter 8. Guarantee	
8.1. Guarantee conditions.....	37
CE declaration of conformity.....	74

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.

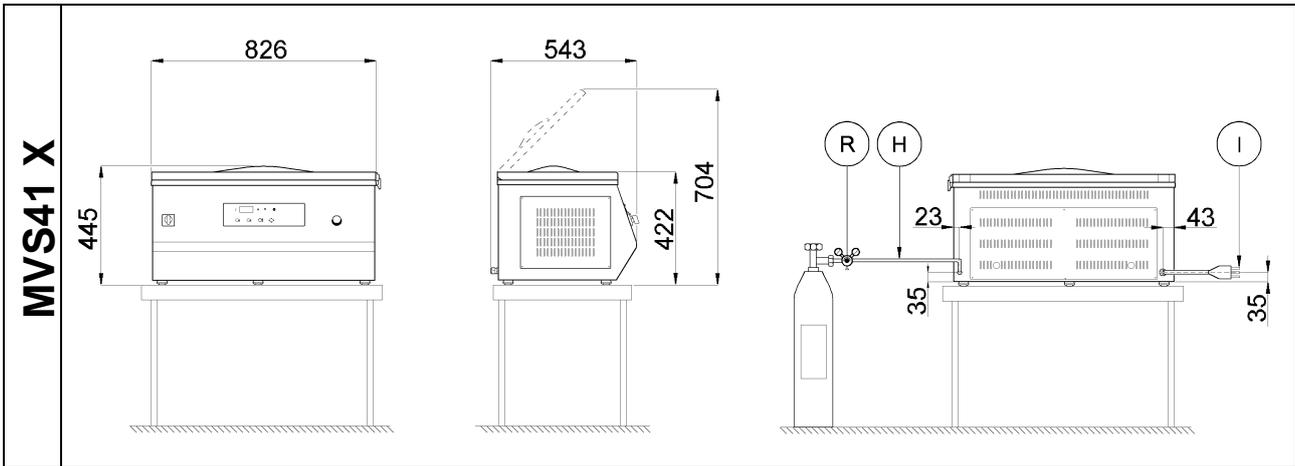
All reproduction rights of this manual are reserved to the manufacturer. Partial or complete reproduction is forbidden as provided by the law. Descriptions and pictures provided in this manual are not binding. Therefore the manufacturer, reserves the right to make any change considered necessary. This manual cannot be transferred for viewing to third parties without authorisation in writing from the manufacturing company.

1.2. Performances of packaging machine

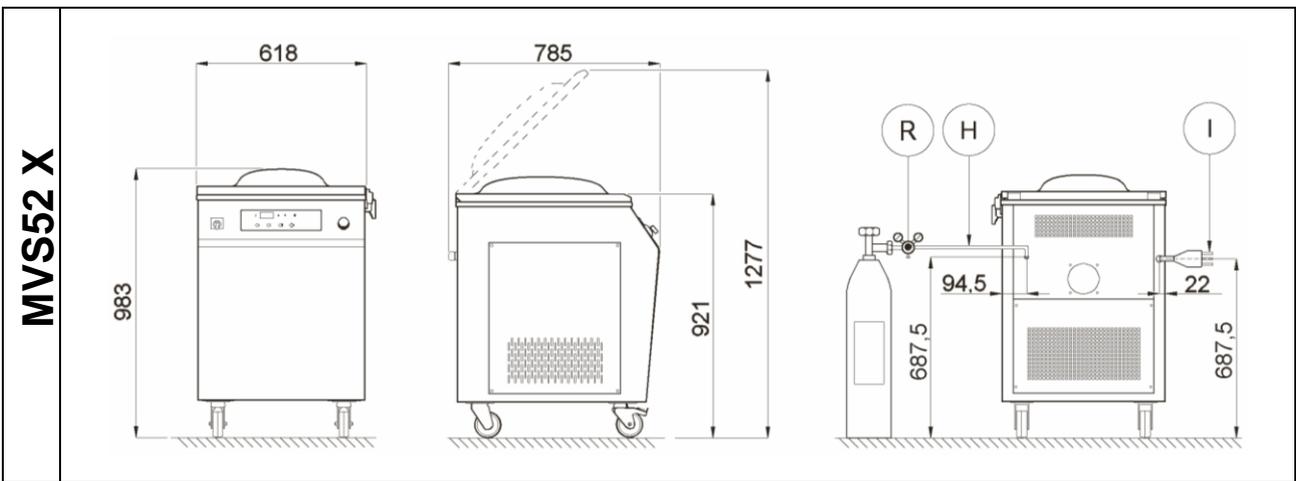
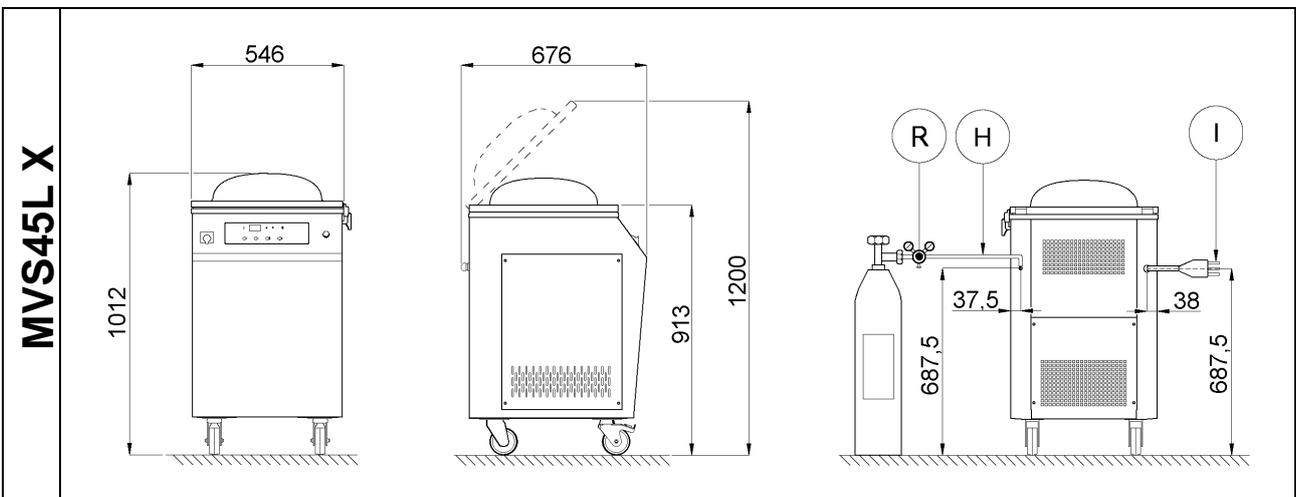
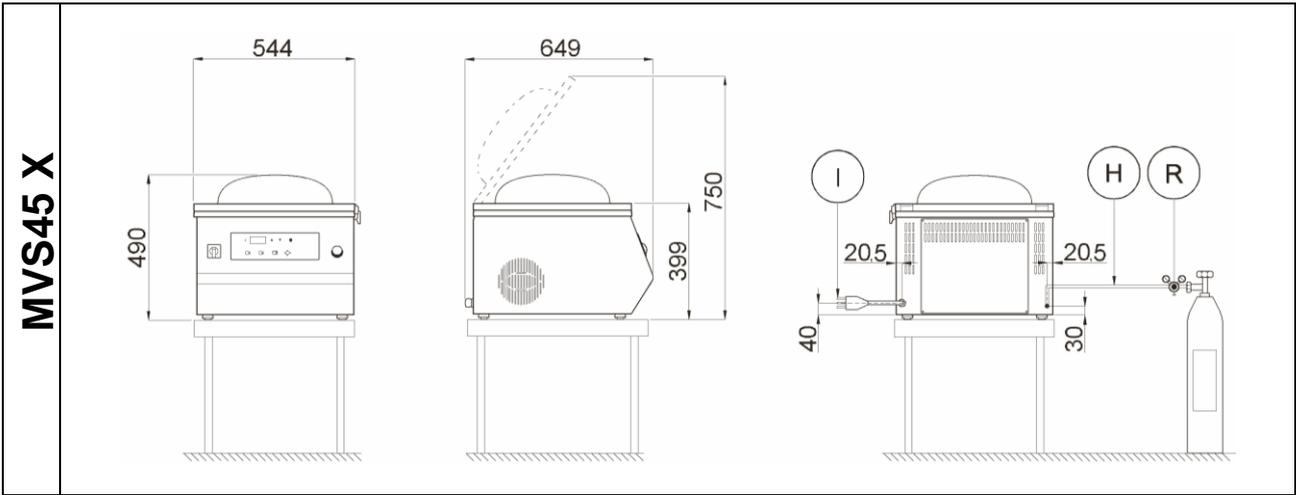
This machine represents what the modern technology of vacuum-packing may express at its best. It is flexible, easily programmable and cheap. It is intended to vacuum-pack foodstuffs by removing oxygen as well as any chemical and biological pollutant present in the environment. To attain the vacuum level 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. Technical data of the machine

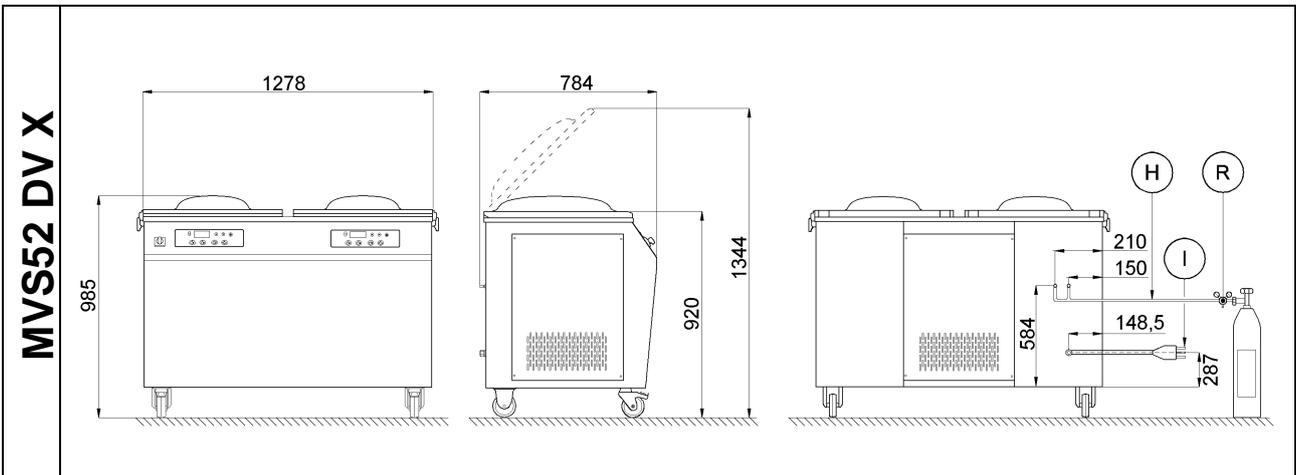
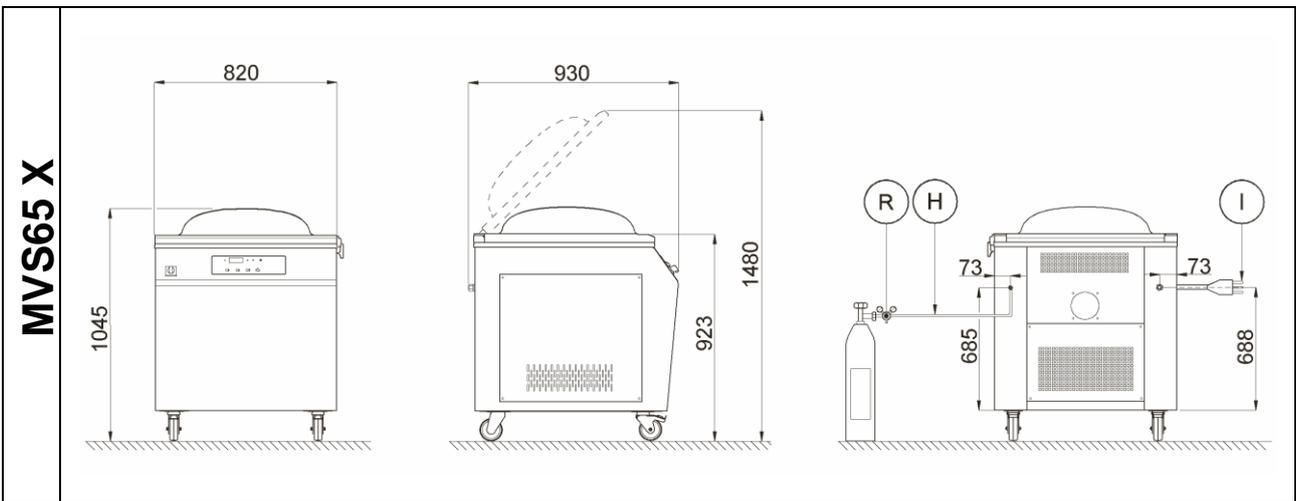
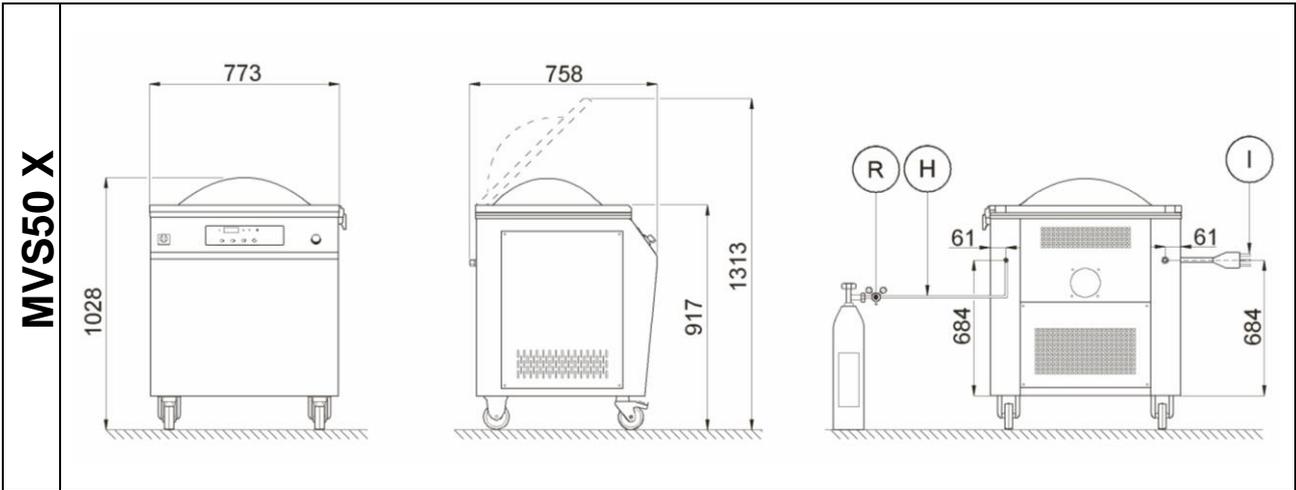
- I = Electrical connections;
- H = Gas connection;
- R = Gas pressure reducer.



	MVS41 X
Package sizes (mm)	650x940x650
Package weight (kg)	111
Machine sizes with closed cover (mm)	826x543x445
Machine sizes with open cover (mm)	826x543x704
Machine weight (kg)	100
Vacuum pump (m ³)	20



	MVS45 X	MVS45L X	MVS52 X
Package sizes (mm)	650x810x705	770x860x1300	770x860x1300
Package weight (kg)	87	129	155 / (177)
Machine sizes with closed cover (mm)	544x649x490	546x676x1012	618x785x983
Machine sizes with open cover (mm)	544x649x750	546x676x1200	618x785x1277
Machine weight (kg)	78	104	130 / (152)
Vacuum pump (m³)	20	20	20 / (40)



Package sizes (mm)	MVS50 X	MVS65 X	MVS52 DV X
Package weight (kg)	770x860x1300	900x985x1300	1590x960x1370
Machine sizes with closed cover (mm)	205	263/281*	300
Machine sizes with open cover (mm)	773x758x1028	820x930x1045	1278x784x985
Machine weight (kg)	773x758x1313	820x930x1480	1278x784x1344
Vacuum pump (m ³)	180	227/245*	268
Package sizes (mm)	40	63/100*	40

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
MVS41 X (front bar)	620 mm	285 mm
MVS41 X (side bar)	300 mm	660 mm
MVS45 X - MVS45L X (front bar)	450 mm	430 mm
MVS45 X - MVS45L X (side bar)	450 mm	375 mm
MVS52 X (side bar)	530 mm	420 mm
MVS50 X (side bar)	500 mm	580 mm
MVS65 X (side bar)	650 mm	630 mm
MVS52 DV X (side bar)	530 mm	420 mm

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 (unless a filter is assembled on the pump)
- 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.

- 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.

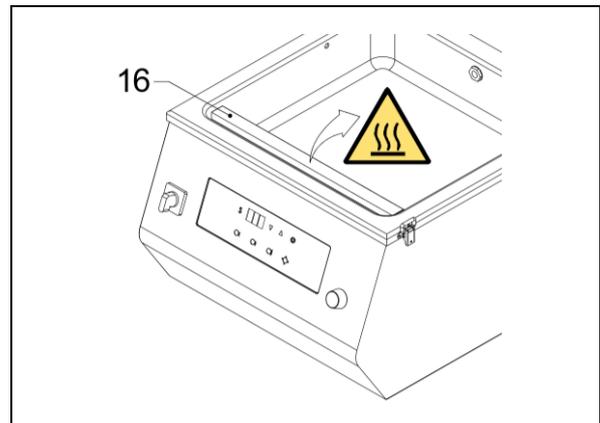
- The operator must be familiar with all warnings related to the tasks in hand and always be informed by the head of the site regarding risks.
- Ensure that all clothing is tight fitting, with particular reference to cuffs or other loose clothing.
- Ensure that all operating areas and transit zones are 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 the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- 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!

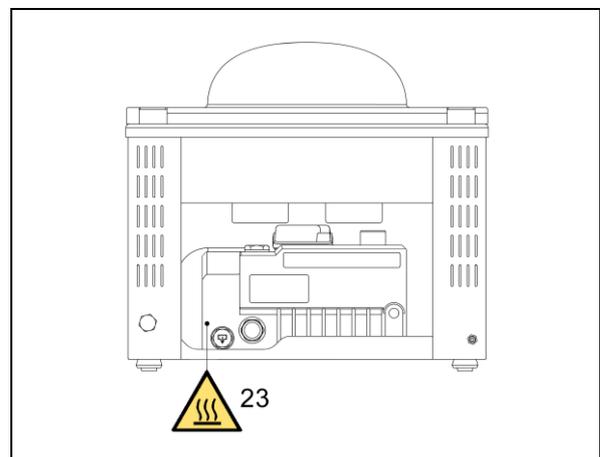
	<p>During work pay attention to all hot parts of the machine. The temperature they can reach is so high that it can cause burns.</p>
	<p>Never use gaseous mixtures in presence of oxygen in a percentage higher than the atmospheric one (~ 19%).</p>

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.

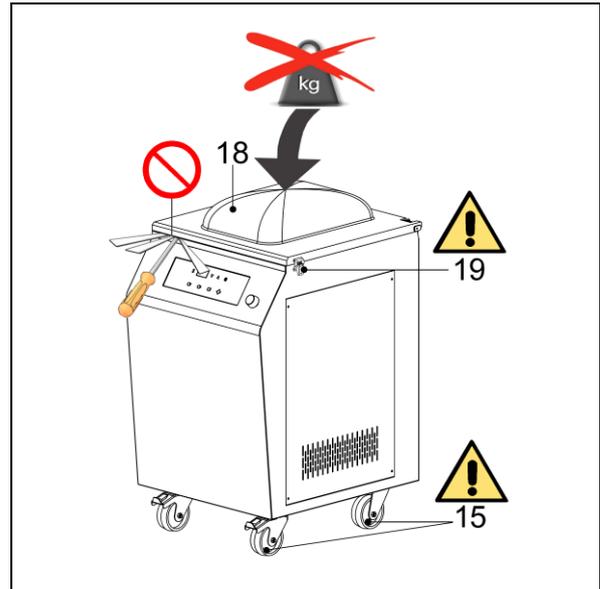
Do not place any weight on the cover (18)! Prevent any object from falling on the cover! This can compromise the integrity, causing cracks or damage.

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

Before any working cycle make sure that the closing hook (19) will not prevent the operator from closing the cover correctly. **Possibility of breaking the cover.**

Only for models "with wheels"

The wheels (15) must be used only for moving the unit short distances across smooth, horizontal floors.



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

	<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>Neither overturn nor tilt the machine! Oil might come out of the pump and damage the machine.</p> <p>The machine must be installed by personnel who are qualified for this operation: personnel specifically trained to safely carry out the loading, unloading and handling operations, who are familiar with the accident prevention rules.</p> <p>Where a forklift must be used, please note that:</p> <ul style="list-style-type: none"> • The forklift truck must only be driven and manoeuvred by specialised and trained personnel who have the skills to carry out these activities, • the load to be handled must not exceed the capacity of the forklift, • the load to be handled must be stable and positioned in absolute safety.

Cut the strap with scissors make sure you protect your eyes by wearing glasses and withdraw the cardboard.
Cut the strap fastening the machine to the pallet.

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 0,5 m around the machine so that not to obstruct air outlets
- Once the correct position is achieved, lock the machine by means of the wheel brakes (where foreseen).

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

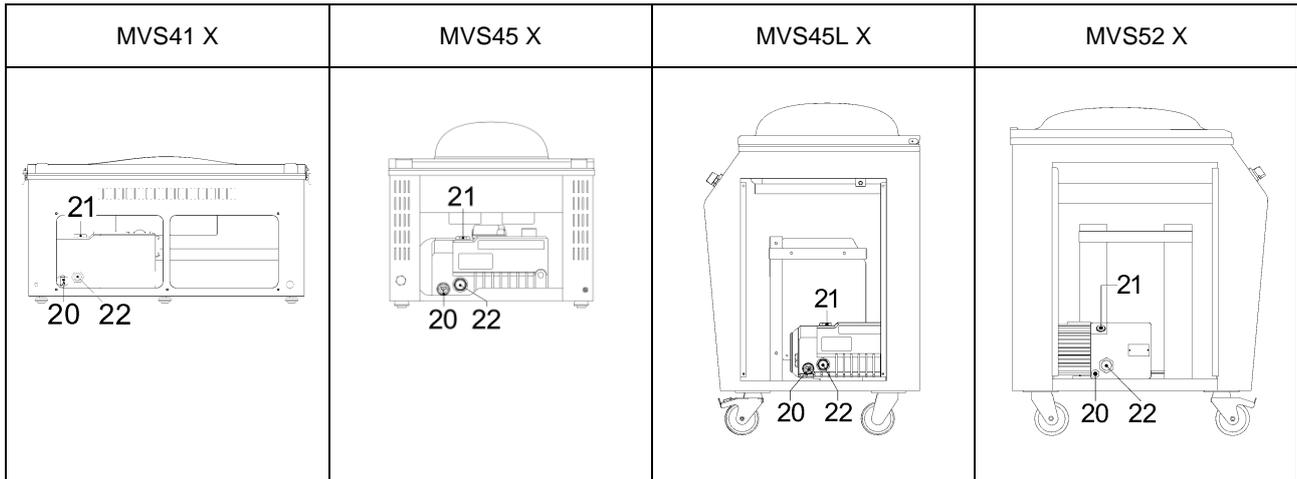
If the pump has no oil, to load, fully use the provided bottle.

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

To access inside the machine, remove the side panel or 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.

V~	Hz	W max	A max
			
MOD.		ANNO	
MATR.		MATR.	
MADE IN ITALY			



The power line must be protected with a type A residual current device with rated residual current equal to “I Δ n”, 30 mA.

As a result, the maximum resistance of the earth electrode must correspond to the values indicated in the following table.

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



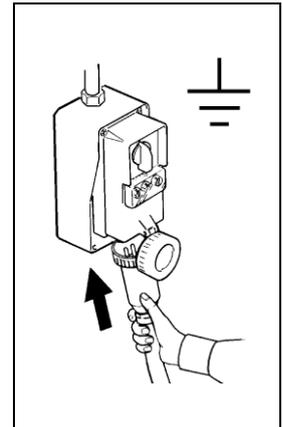
OBSERVE HEALTH AND SAFETY REGULATIONS!

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.

GROUNDING OF THE UNIT IS OBLIGATORY!

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.

Insert the plug on the cable from machine electrical cabinet in a mains power supply socket that can be reached easily by the operator.



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.



Never use gaseous mixtures in presence of oxygen in a percentage higher than the atmospheric one (~ 19%).

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.

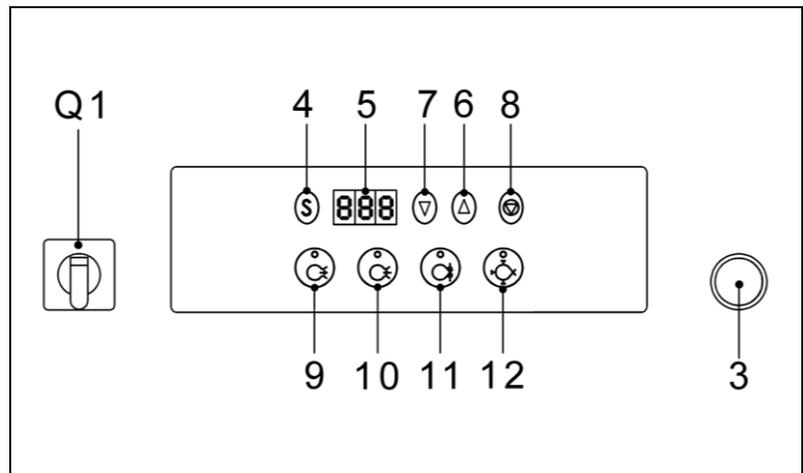
If the pressure is not correct, act on the knob of the pressure reducer (R) (see chapter 1.3.).

6.1. Adjustment

6.1.1. Control panel (MVS41 X, MVS45 X, MVS45L X, MVS52 X, MVS50 X, MVS65 X)

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

- Q1 Main switch
- 3 Adjusting knob for air re-imission "SOFTAIR" (where foreseen)
- 4 Selection button
- 5 Display.
- 6 Displays selected functions and relative settings
- 7 Button "INCREASE".
- 8 Increases set function values
- 9 Button "DECREASE".
- 10 Reduces set function values
- 11 Stop button
- 12 Led for vacuum and extra vacuum function
- 9 Led for gas function
- 11 Led for sealing function
- 12 Led for air re-imission function



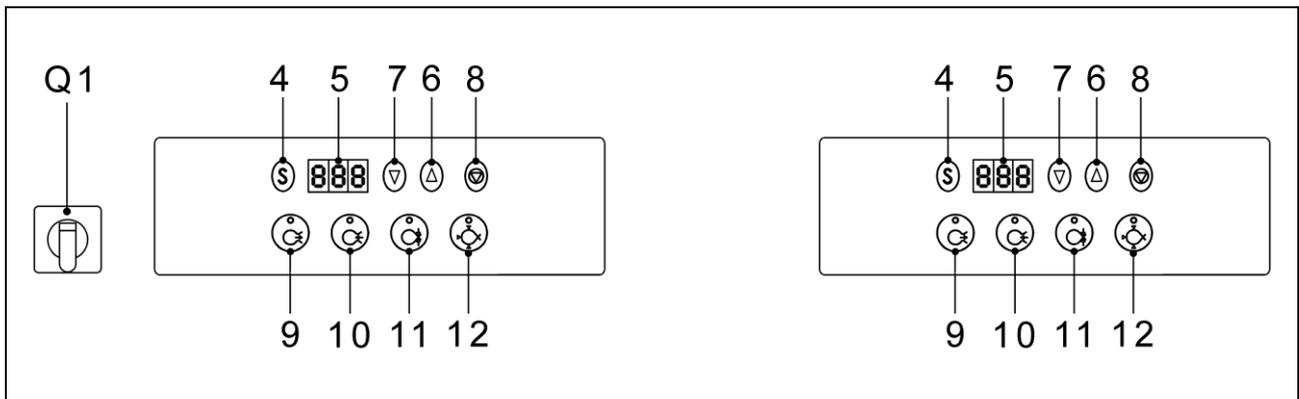
6.1.1. Control panel (MVS52 DV X)

The machine is fitted with two control panels that can be used to set up all the programming and operating functions.

Each panel can only regulate the packaging cycle in the tank on the corresponding side.

The two control panels are independent of one another, therefore they can be set up using different values.

The two machine working stations cannot be operated simultaneously.



- Q1 Main switch
- 4 Selection button
- 5 Display.
- 6 Displays selected functions and relative settings
- 7 Button "INCREASE".
- 8 Increases set function values
- 9 Button "DECREASE".
- 10 Reduces set function values
- 11 Stop button
- 12 Led for vacuum and extra vacuum function
- 9 Led for gas function
- 11 Led for sealing function
- 12 Led for air re-imission function

6.1.2. Switching the machine on

Turn the main switch (Q1) to position 1. As soon as the board has been switched on, display will show the software version, then the last program being executed (P1÷P9).

6.1.3. Program selection and variable setting

To select the program number, just press the buttons (6) and (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. Parameters are stored when, while running a program, the number of the program itself will appear on the display.

The machine has 9 selectable programs.

- Programmes **P1÷P8** are composed by 4 modifiable variables (vacuum, extravacuum, gas, sealing).
- Program **P9**, "External Vacuum", can be ran only on models equipped with a tank set for this type of packaging. It consists of only 2 variables that can be modified (vacuum and extra-vacuum).
It is the program to be used for removing air from container surfaces that can be closed hermetically. These containers must be connected using an intake tube to the pick-up fitting placed inside the tank. To start the program, press Stop (8). The cover must always be open.

TABLE OF PARAMETERS ACCORDING TO PROGRAMMES		
Variable	P1÷P8	P9 (External Vacuum)
Vacuum (values expressed in %)	Min. = 0,0 Max. = 99,9 Recommended = 99,9	Min. = 0,0 Max. = 99,9 Recommended = 99,9
Extravacuum (values expressed in seconds)	Min. = 0,0 Max. = 30,0	Min. = 0,0 Max. = 30,0
Gas (values expressed in %)	Min. = 0,0 Max. = 60,0 Recommended = never exceed 40%	not settable
Sealing (values expressed in seconds)	Min. = 0,0 Max. = 4,0 Recommended = 1,6÷1,8 (MVS41-45-45L), 2,0÷2,5 (MVS50-52-65-52 DV)	not settable

All packaging machines are tested at works. The parameters set at works generally prove to be fit for use.

1) VACUUM

It is possible to set a value from 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%

2) 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 30 seconds. This 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).

3) GAS

It is possible to set a value from 0 to 99%. 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%

4) SEALING

It is possible to set a value from 0 to 4 seconds. For the first working cycles it is recommendable to set a sealing time of about 1,9 seconds (MVS41-45-45L) / 2,5 seconds (MVS50-52-65-52 DV) 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	1,6 – 1,8 (MVS41-45-45L) 2,0 – 2,5 (MVS50-52-65-52 DV)
Smooth for storage	85 – 95	1,6 – 1,8 (MVS41-45-45L) 2,0 – 2,5 (MVS50-52-65-52 DV)
Smooth made of aluminium	120 – 140	2,1 – 2,6 (MVS41-45-45L) 2,5 – 3,0 (MVS50-52-65-52 DV)
Bellow made of aluminium (it can be packed only with "sealing counterbar"; optional)	120 – 140	2,0 – 2,5 (MVS41-45-45L) 2,3 – 2,9 (MVS50-52-65-52 DV)

6.2. Packaging

After selecting the program and setting the necessary variables, go ahead with packaging.

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 2cm beyond the sealing.

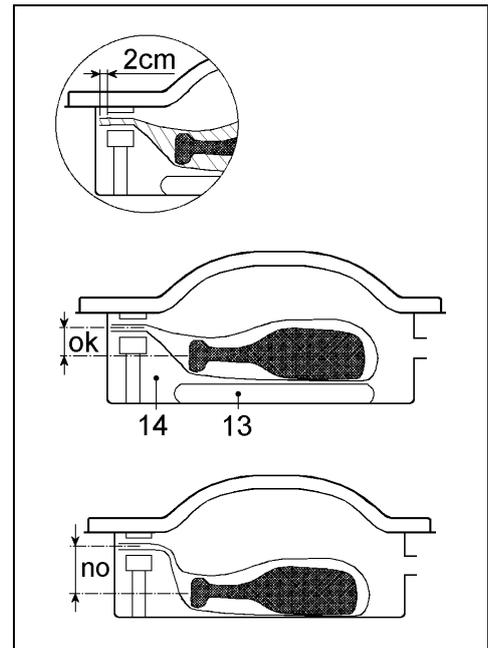
If the "GAS" function is on, the pouch must be positioned with the strip open on the gas nozzle on one side of the sealing bar.

Close the upper Plexiglas cover.

The packaging cycle starts when the cover is closed.

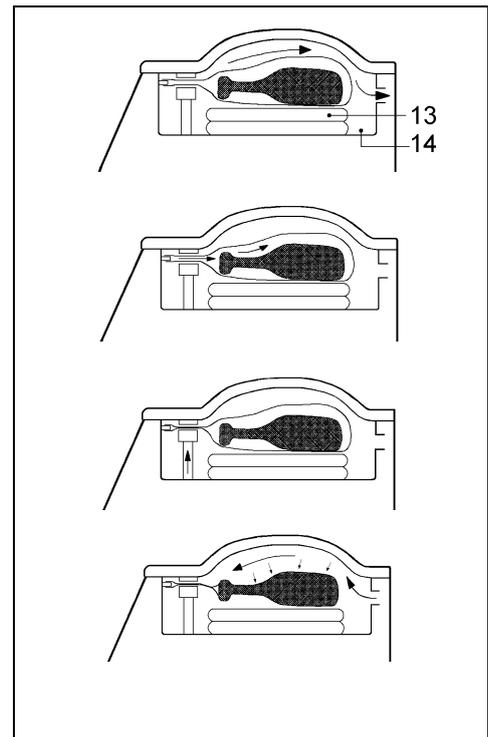
Note: When the product dimensions allow, we recommend using some tables (13) as shimming the product facilitates positioning the pouch in relation to the sealing bar.

Moreover, it allows decreasing the volume of the tank (14) and, therefore, the amount of air to be removed, speeding up the packaging cycle.



The packaging cycle is sub-divided into four phases:

1. Suction phase during which all the air contained inside the tank and the pouch is sucked.
The LED is on (9).
2. Gas injection phase (if the machine is equipped with a gas plant).
The LED is on (10).
3. Sealing phase during which the packet is sealed.
The LED is on (11).
4. Air re-enter phase and subsequent opening of the cover.
The LED is on (12).
The tank will reach its atmospheric pressure and the upper cover will open again.
Machine is ready for a new packing cycle.



After every working cycle, on the display will appear a number showing the total cycles being executed.

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.



(*) SOFTAIR function (where foreseen)

The slow air backflow into the vacuum tank after having sealed the pouch will enable the operator to pack delicate products with sharp edges. This will avoid any damage to the pouches due to a too rapid decompression.

Turn knob (3) of "SOFTAIR" to symbol "-" to make the air backflow slower.

Turn knob (3) of "SOFTAIR" to symbol "+" to make the air backflow quicker.

The optimal value can be determined after some tests that shall be carried out before mass-packaging the product.

A particularly angular and sharp conformation may require a longer time



If you press the Stop button (8), the machine will immediately stop sucking and automatically start sealing the pouch. This function will be used to pack liquid and hot products which may start boiling during the vacuum cycle.

6.3. Alarm messages

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

OIL: Check the level and colour of the oil, as described in the pump manual.
To reset this alarm, press buttons (6) and (7) simultaneously.

OFF: The electronic board is blocked.
Contact the technical service department.

7.1. Precautions for ordinary maintenance interventions

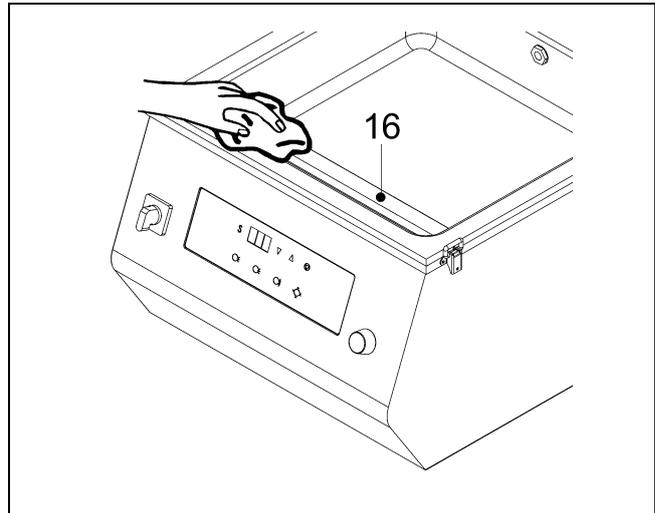
ORDINARY MAINTENANCE, MUST BE EXECUTED BY QUALIFIED STAFF APPROPRIATELY TRAINED.



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.

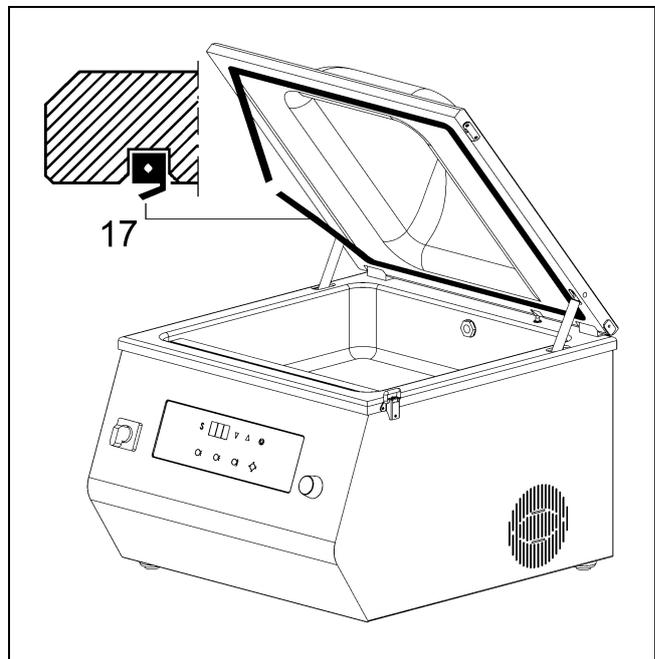
7.2. Cleaning of the sealing bar

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

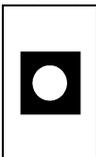


7.3. Replacement of the cover gasket

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.

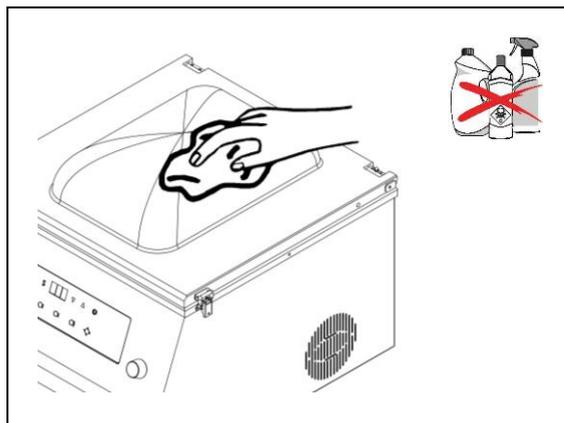


7.4. Cleaning machine



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'
 EN CE DECLARATION OF CONFORMITY
 DE KONFORMITÄTSEKTLÄRUNG
 FR DECLARATION CE DE CONFORMITE'
 ES DECLARACIÓN CE DE CONFORMIDAD
 SV ÖVERENSTÄMMELSEFÖRKLARING EC
 PT DECLARAÇÃO CE DE CONFORMIDADE

EL ΔΗΛΩΣΗ ΠΙΣΤΟΠΟΙΗΣΗΣ CE
 CS ES PROHLÁŠENÍ O SHODĚ
 NL CE GELIJKVORMIGHEIDSVERKLARING
 FI EY-VAATIMUSTENMUKAISUUSVAKUUTUS
 RU ДЕКЛАРАЦИЯ СООТВЕТСТВИЯ CE
 한국어 적합성의 CE 선언

IT Noi: SV Vi: FI Me:
 EN We: PT Nós: RU Мы:
 DE Wir: EL Εμείς: 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 독점적인 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:		

MVS41 X _____ / _____ MVS45 X _____ / _____
 MVS45L X _____ / _____ MVS52 X _____ / _____
 MVS50 X _____ / _____ MVS65 X _____ / _____
 MVS52 DV X _____ / _____

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 turvallisuuksia koskevia vaatimuksia ja kaikkia sovellettavien 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 sovelletaneet 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 60204-1:2010

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 Merkhefts 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.t. 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.