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**IT ISTRUZIONI PER L'INSTALLAZIONE, L'USO E LA MANUTENZIONE**  
**EN INSTALLATION, OPERATION AND MAINTENANCE**  
**DE INSTALLATIONS-, GEBRAUCHS- UND WARTUNGSANLEITUNG**  
**FR INSTRUCTIONS POUR L'INSTALLATION, L'EMPLOI ET L'ENTRETIEN**  
**ES INSTRUCCIONES PARA LA INSTALACION, USO Y MANTENIMIENTO**  
**SV BRUKSANVISNINGAR, MONTERINGSINSTRUKTIONER OCH UNDERHÅLLSFÖRESKRIFTER**  
**PT INSTRUÇÕES PARA A INSTALAÇÃO, O USO E A MANUTENÇÃO**

**IT MACCHINA CONFEZIONATRICE SOTTOVUOTO**  
**EN VACUUM PACKING MACHINE**  
**DE VAKUUMMASCHINE**  
**FR MACHINE CONFECTIONNEUSE SOUS-VIDE**  
**ES MÁQUINA DE ENVASADO AL VACÍO**  
**SV VAKUUMFÖRPACKNINGSMASKIN**  
**PT MÁQUINA CONFECCIONADORA SOB VÁCUO**

### MV41 X



### MV45 X



### MV45L X



### MV52 X



**IT LEGGERE ATTENTAMENTE QUESTE ISTRUZIONI PRIMA DI USARE LA MACCHINA**  
**EN BEFORE USING THE MACHINE PLEASE CAREFULLY READ THE INSTRUCTIONS**  
**DE BITTE LESEN SIE DIESE ANLEITUNG GENAU DURCH, BEVOR SIE DIE MASCHINE BENÜTZEN**  
**FR PRIERE DE LIRE ATTENTIVEMENT CE MANUEL D'INSTRUCTIONS AVANT D'UTILISER LA MACHINE**  
**ES LEER ATENTAMENTE ESTE MANUAL ANTES DE USAR LA MÁQUINA**  
**SV DENNA HANDBOK SKA NOGA LÄSAS IGENOM INNAN MASKINEN TAS I BRUK**  
**PT ANTES DE USAR A MÁQUINA LER CUIDADOSAMENTE ESTE MANUAL**

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DOC. N.FM111155  
REV. 01  
ED. 07.2012

# 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.



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. The machine must be used only for the purpose it was built for. Any other use shall be considered "improper" and therefore dangerous. Before carrying out any operation on the machine it is compulsory to read carefully all instructions provided in this manual, in order to avoid possible damage to the machine, to people and property.

Do not operate if in doubt about the correct interpretation of the instructions.

Contact the manufacturer in order to obtain the necessary explanation.

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.

Upon delivery check that the machine is complete in all parts.

Possible faults shall be immediately reported to the manufacturer.

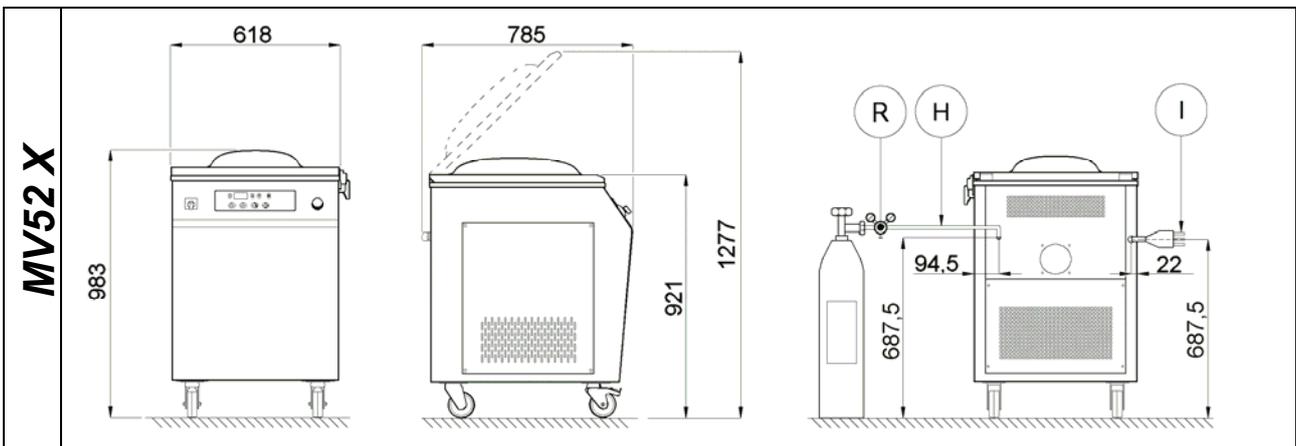
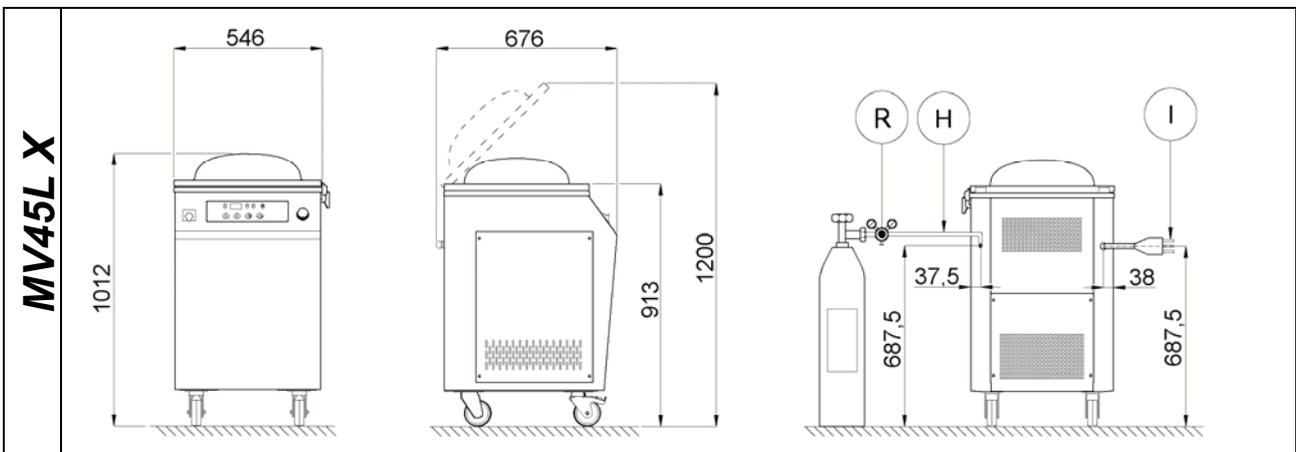
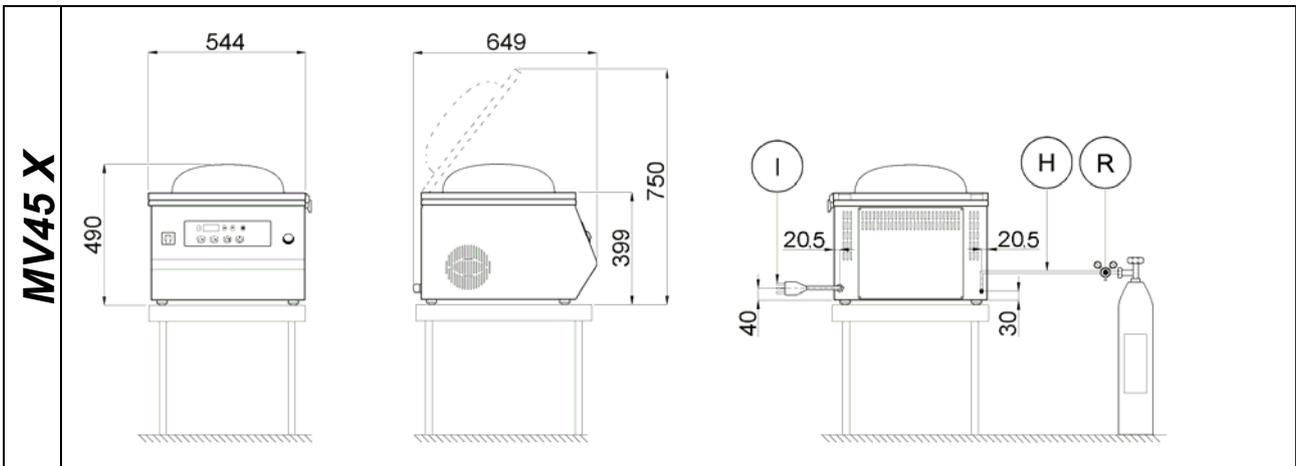
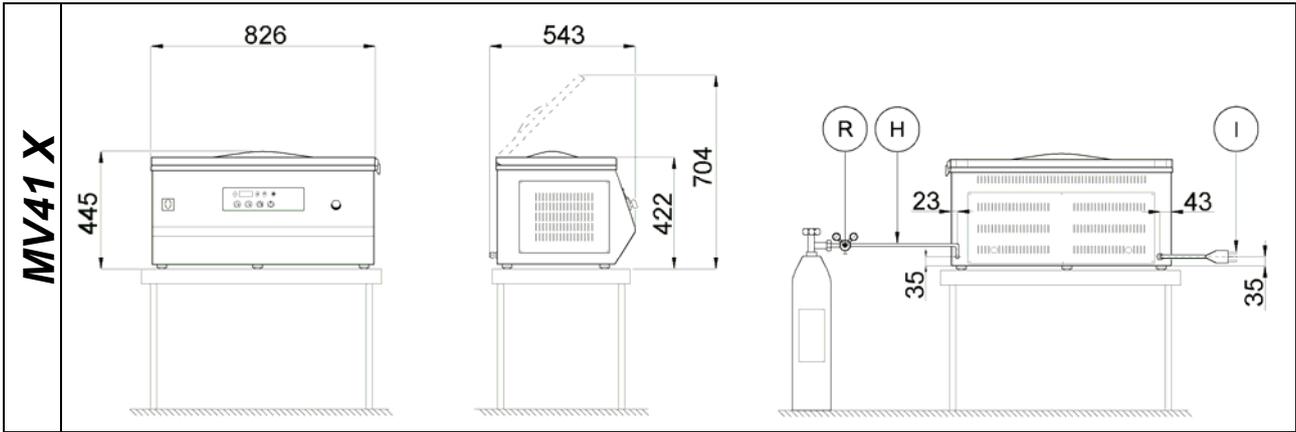
The manufacturing company declines any liability in case of machine improper use and/or in case of damage resulting from operations carried out on the machine that are not mentioned in this manual.

**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.*



<b>Chapter 1. Description</b>	<b>EN</b>
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	<b>MV41 X</b>	<b>MV45 X</b>	<b>MV45L X</b>	<b>MV52 X</b>
Package sizes (mm)	650x940x650	650x810x705	770x860x1300	770x860x1300
Package weight (Kg)	117	87	129	
Machine sizes with closed cover (mm)	826x543x445	544x649x490	546x676x1012	618x785x983
Machine sizes with open cover (mm)	826x543x704	544x649x750	546x676x1200	618x785x1277
Machine weight (Kg)	102	78	104	
Vacuum pump (m <sup>3</sup> )	20	20	20	20

<b>Chapter 2. Pouches features</b>	<b>EN</b>
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### 2.1. Pouches to use

They may be of different thickness (90 to 200micron) and shall be both airtight and gastight.

The following table indicates the maximum dimensions of the pouches that can be used with the various machine models.

<b>Machine</b>	<b>Pouch width (open side) (mm)</b>	<b>Pouch length (mm)</b>
MV41 X (front bar)	620	285
MV41 X (side bar)	300	660
MV45 X (front bar)	450	430
MV45 X (side bar)	450	375
MV45L X (front bar)	450	430
MV45L X (side bar)	450	375
MV52 X	530	420



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

<b>Chapter 3. Machine usage conditions</b>	<b>EN</b>
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### 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.

**4.1. Description of safety stickers**

The following safety stickers feature on the machine:

	<ul style="list-style-type: none"> <li>On the power input.</li> </ul> <p><b>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.</b></p>
	<ul style="list-style-type: none"> <li>On the sealing bars positioned inside the tank</li> <li>On the vacuum pump positioned inside the machine.</li> </ul> <p><b>ATTENTION! Hot members. It shows the danger of burning, thus involving the risk of a serious accident for the exposed person.</b></p>
<p><b>ATTENZIONE :</b> Superficie calda. Evitare il contatto. <b>WARNING :</b> Hot surface. avoid contact. <b>ATTENTION :</b> Surface chauffante. Ne touchez pas.</p>	<ul style="list-style-type: none"> <li>On the sealing bars positioned inside the tank</li> </ul> <p><b>ATTENTION! Indicates the danger of burns with risk of accident in case of contact with the hot surface of the sealing bar.</b></p>
<p><b>ATTENZIONE :</b> Per la pulizia del coperchio non utilizzare alcool o solventi ma esclusivamente acqua e sapone. <b>WARNING :</b> Do not use methylated spirits and solvents clean the lid, but water and soap only. <b>ATTENTION :</b> 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"> <li>On the Plexiglas lid.</li> </ul> <p><b>ATTENTION! Indicates how to clean the lid to prevent damaging it and reducing its transparency or strength.</b></p>

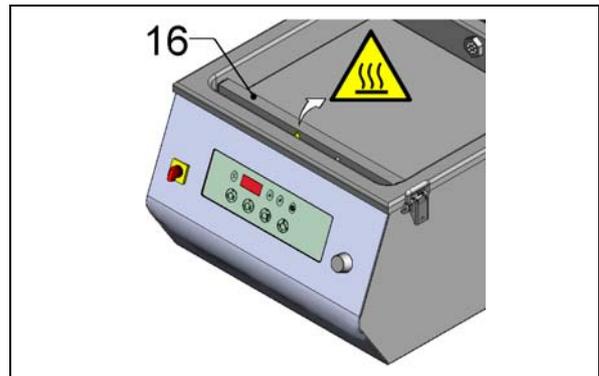
**4.2. Warnings**

**THE MACHINE CAN NOT BE USED BY UNTRAINED PERSONNEL!**

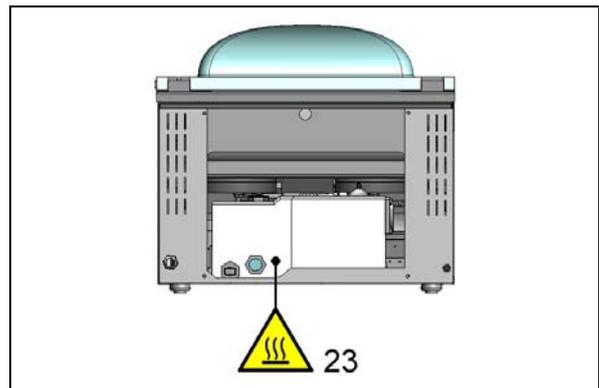
	<p><b>During work pay attention to all hot parts of the machine. The temperature they can reach is so high that it can cause burns.</b></p>
	<p><b>Smoking is forbidden while the machine is operating!</b></p>
	<p><b>Never use gaseous mixtures in presence of oxygen in a percentage higher than the atmospheric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

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

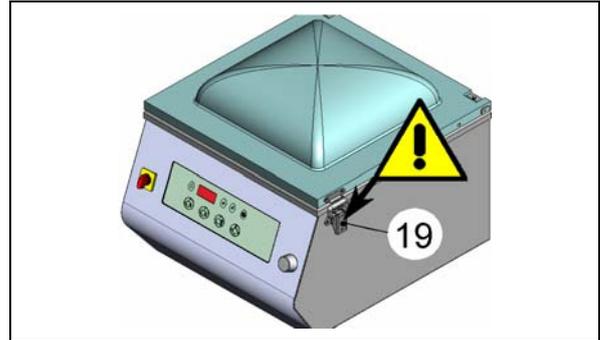
Do not seal if the sealing wire is broken.  
**Replace it immediately.**



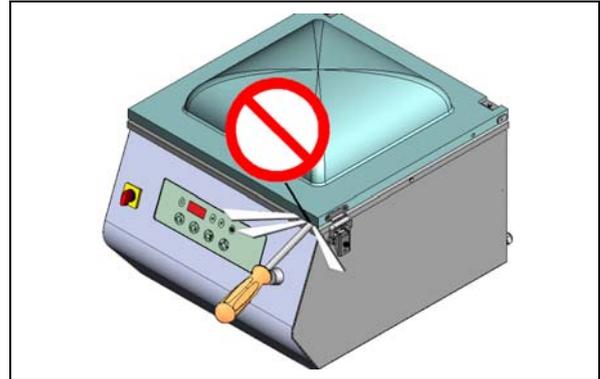
Do not touch the vacuum pump (23) just after a working cycle.  
**Possibility of burning** due to the high temperature the pump may reach.



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.**

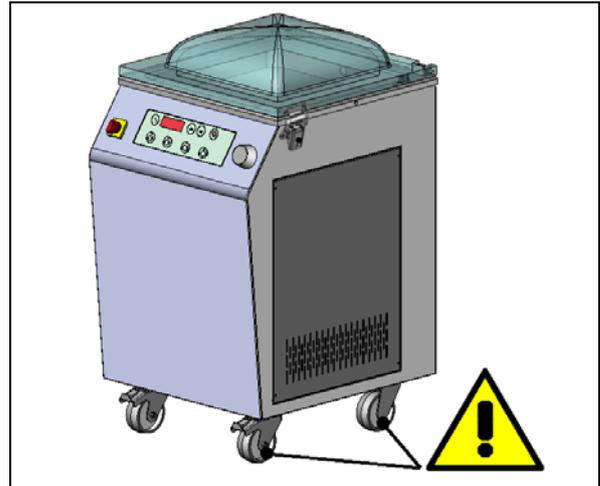


In case of a power failure during a working cycle when the cover is closed, do not use any tool in order to force its opening.  
 Wait for the power supply to be restored.



Models MV45L X and MV52 X only.

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



**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"> <li>• <b>When transporting and positioning the machine, it is recommended to handle it with great care!</b></li> <li>• <b>Lift up the packing and machine with a forklift.</b></li> <li>• <b>Neither overturn nor tilt the machine! Oil might come out of the pump and damage the machine.</b></li> </ul>
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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 0,5m 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 (only for models “MV45L X” and “MV52 X”).

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. 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

N.B.: When contacting the Manufacturer, always indicate the model and the serial number specified on the plate on the rear part of the machine.

 MINIPACK - TORRE S.p.A. 24044 DALMINE (BG) - ITALY www.minipack-torre.it			
V~	Hz	W max	A max
		MOD.	
		ANNO	
		MATR.	
MADE IN ITALY			



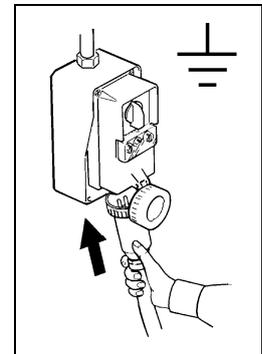
**OBSERVE HEALTH AND SAFETY REGULATIONS!**

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 executing 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 public 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.



**5.3.2. 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.).

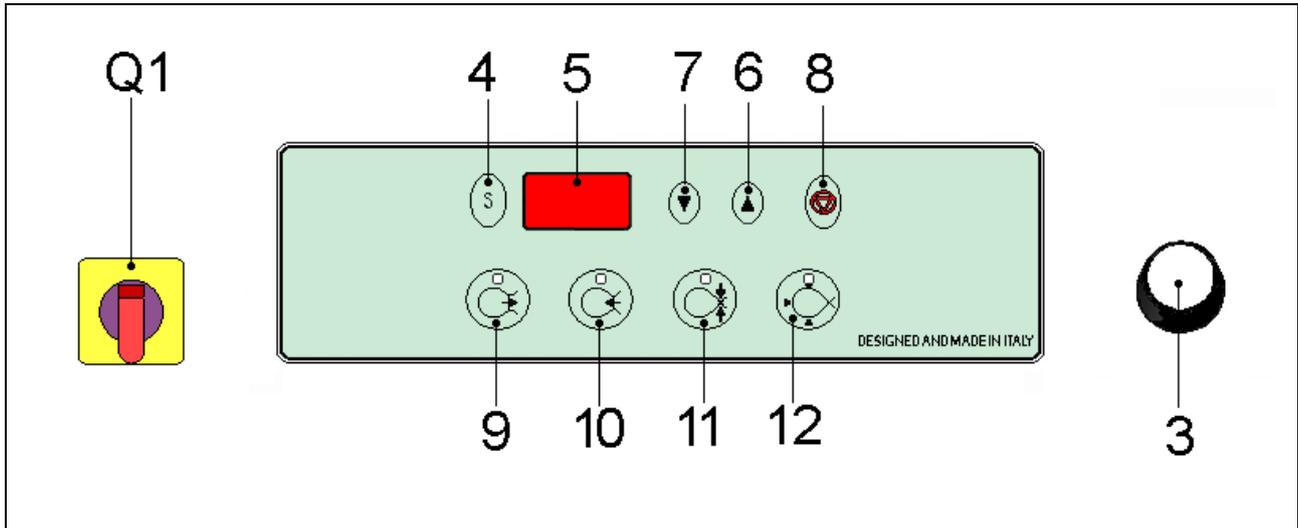
Pressure of gas plant has to be set on about 2 atm., bearing in mind the max. working pressure is 4 atm.

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**

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-immission (SOFTAIR)
- 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

**6.1.2. 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).

The machine has 9 selectable programs. Programmes P1÷P8 are composed by 4 modifiable variables. Programme P9 "External Vacuum" is composed by 2 modifiable variables only (Vacuum and Extra-Vacuum). Start it by pressing the Stop button (8).

Variable	Field	Field Features
1) VACUUM	0 ÷ 99,9	Values expressed in %
2) EXTRAVACUUM	0 ÷ 30	Values expressed in seconds
3) GAS	0 ÷ 99	Values expressed in % (never exceed 40%)
4) SEALING	0 ÷ 4	Values expressed in seconds

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

**6.1.3. Program selection and variable setting**

• **Programs selection**

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

• **Variable setting**

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.

**1) VACUUM**

It is possible to set a value from 0 to 99,9%.

The recommended vacuum percentage is 99,9%.

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

**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).

**NB:** 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 signalled 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.

**N.B.:** 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 2,2 seconds and then lower it to prevent the Teflon tape from burning. Scheduling of sealing time parameter is adjusted through LED (11).

**6.2. Packaging**

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

Arrange the maximum number of shelves (13) the hood (14) may accommodate according to the sizes of the product to be packed.

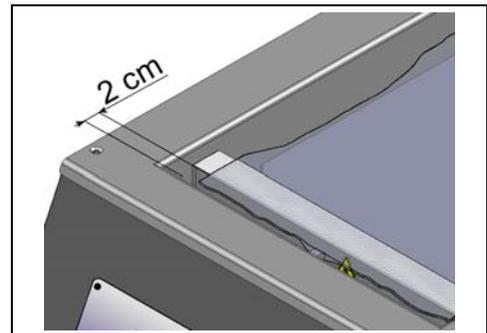
Place the envelope inside the hood and on the sealing bar in a way as linear as possible.

Try to prevent the envelope from wrinkling. Wrinkles might negatively affect the hermetic seal formed by sealing. Envelopes shall be at least 2 cm beyond the sealing.

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

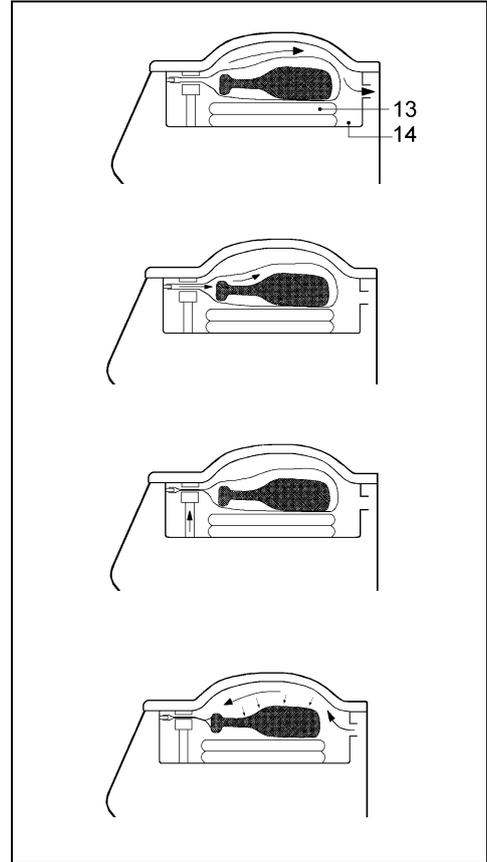
Close the upper plexiglas cover.

The packaging cycle starts when the cover is closed.



The packaging cycle is sub-divided into four phases:

1. Suction phase during which all the air contained inside the bell and the bag is sucked.
  
2. Gas injection phase (if the machine is equipped with a gas plant).
  
3. Sealing phase during which the packet is sealed.
  
4. Air re-enter phase and subsequent opening of the cover.  
 The hood 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.

All set-up parameters are stored until they are modified.

**(\*) SOFTAIR function**

The slow air backflow into the vacuum hood after having sealed the envelope will enable the operator to pack delicate products with sharp edges. This will avoid any damage to the envelopes 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:** Control the oil level and colour as described in chapter 7.6.  
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**

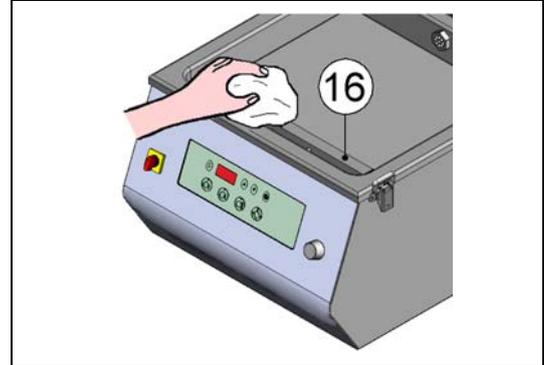
**ORDINARY MAINTENANCE, MUST BE EXECUTED BY QUALIFIED STAFF APPROPRIATELY TRAINED.**



**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.**

**7.2. Cleaning of the sealing bar**

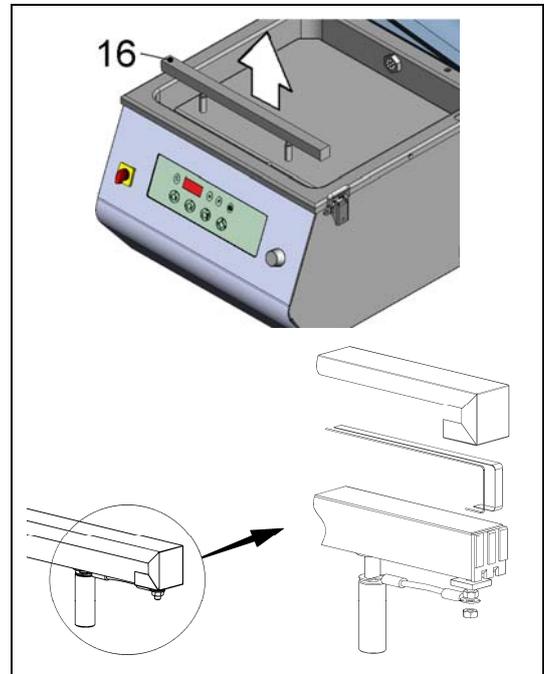
Use a dry cloth to remove any film residue on the sealing bar (16).



**7.3. Replacement of the Teflon and the sealing blade**

Before replacing Teflon and the sealing blade wait for the machine to be properly cooled.

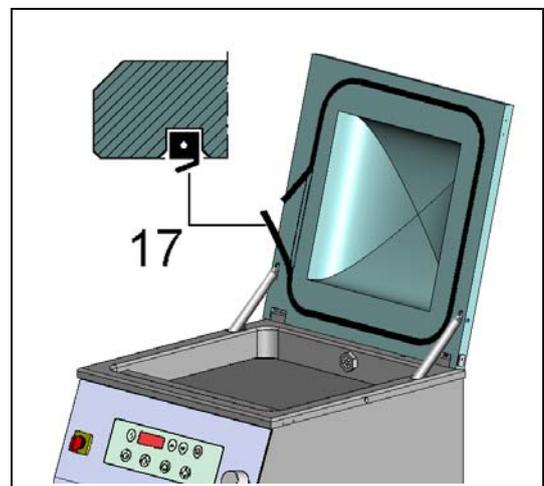
- Remove the sealing bar (16) from its seat
- Remove the Teflon adhesive tape
- Unscrew the nuts fastening the blades to each end of the sealing bar
- Tighten the new blades. Make sure they are taut enough before blocking them
- Use the Teflon adhesive tape to cover the sealing blades
- Place the sealing bar into its seat.



**7.4. 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.

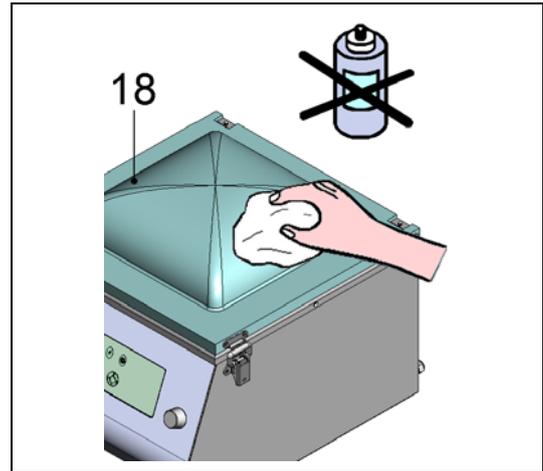


**7.5. Cleaning machine**



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.

**7.6. Vacuum pump maintenance**

It is very important to regularly service the pump to ensure extended and correct operation. The following activities are essential for correct maintenance.

**7.6.1. Changing the oil and the pump filter**

The oil level and oil quality must be checked at least once a week. The oil inspection plug (22) serves this purpose. Fill up the oil level if it is too low. Replace the oil if it is turbid. Take care to replace the oil filter before adding the new oil. Follow the instructions you can find on the pump manual in order to change the oil and the vacuum pump filter. However, oils of the VG type shall be used in compliance with the DIN 51506 standards.



**The oil you have replaced must be eliminated according to the procedures established by the laws in force in the country the equipment has been installed.**

mod. MV41 X	mod. MV45 X	mod. MV45L X	mod. MV52 X

- (20) Oil discharge plug (to completely replace old oil)
- (21) Oil filling plug
- (22) Oil inspection plug

**7.7. Replacement of the supply cord**



**ATTENTION!**

If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.

**7.8. Wiring diagram**

**MV45 X, MV45L X, MV52 X** (figure 7.8. page 100).

- B0 Cycle start limit switch
- B1 Gas pressure switch
- C1 Vacuum pump condenser
- ER1/2 Sealing blade
- SK1 Control board
- F1 Line fuses
- F2 Auxiliary transformer fuse
- FQ1 Vacuum pump thermal
- FQ2/3 Sealing blades thermal
- M1 Vacuum pump motor
- Q1 Main switch
- QM1 Motor contactor
- QM2 Blade heater contactor
- QV1 Air re-immission valve
- QV2 Gas injection airvalve
- QV3 Sealing airvalve
- T1 Sealing transformer
- T2 Auxiliary transformer

**7.9. Pneumatic diagram**

(figure 7.9. page 101).

- CV Vacuum hood
- UG Gas nozzles
- BA Suction pipe union
- QV1 Air re-immission valve
- QV2 Gas injection airvalve
- QV3 Sealing airvalve
- B1 Gas pressure switch
- BG Gas cylinder
- MP Pneumatic membrane
- M1 Vacuum pump motor
- PV Vacuum pump
- S Sensor

**7.10. 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:

1. disconnect machine from power mains
2. disconnect the machine from the gas system (if installed)
3. disassemble components
4. 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.

**8.1. Certificate of guarantee**

*The guarantee runs for 12 months after the installation date under the conditions set forth on the instruction manual. Fill in the card with all data requested, tear out along the perforations and send in.*

**8.2. 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:*

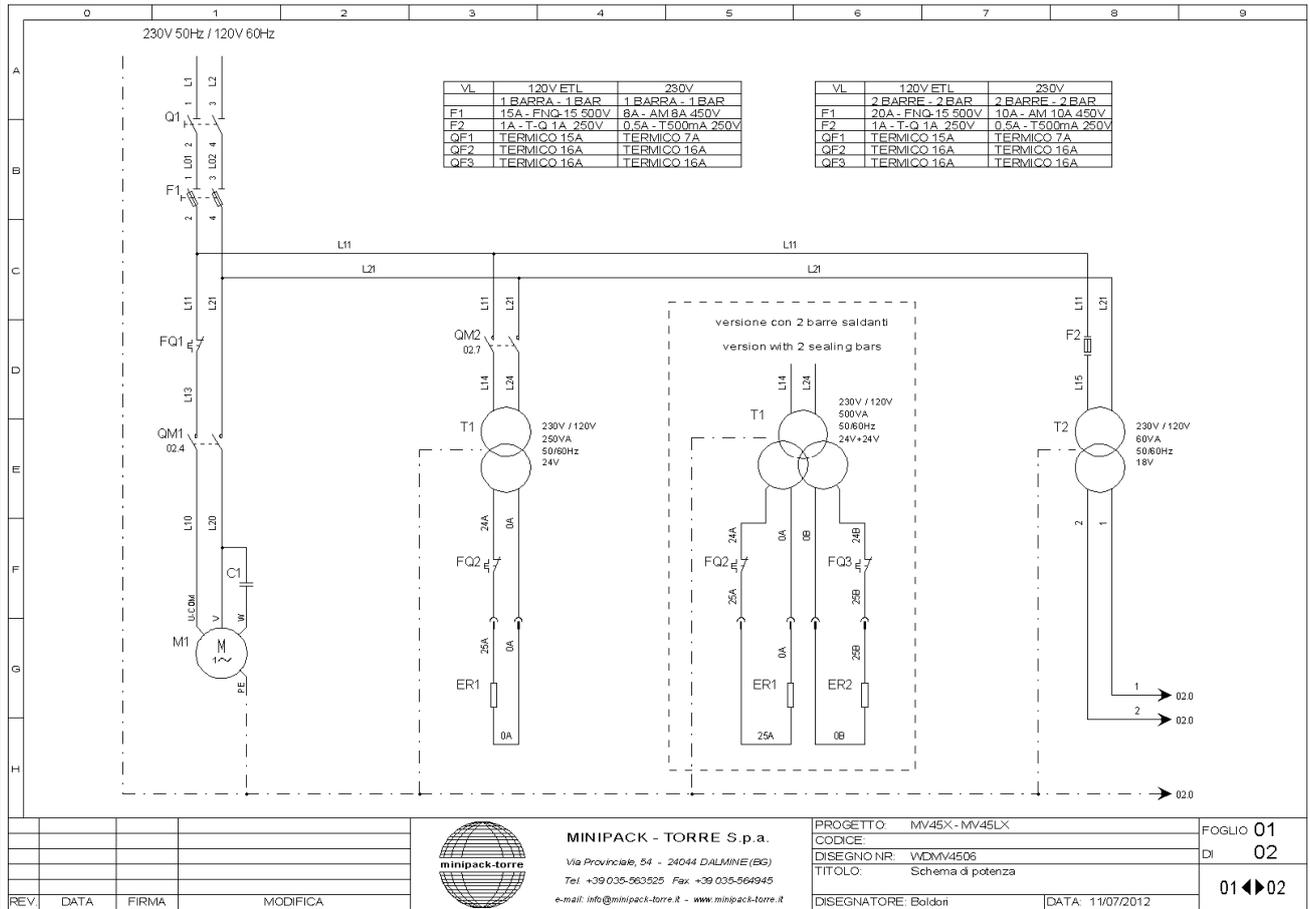
- 1. in case of failure to mail the CERTIFICATE OF GUARANTEE, duly filled in and signed, with in 20 days after the date of purchase.*
- 2. in case of inappropriate installation, power supply, misuse and mishandling by unauthorised persons.*
- 3. in case of changes made to the machine without prior agreement in writing by the manufacturers.*
- 4. if the machine is no longer the property of the first buyer.*

***The manufacturer decline 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 undertake 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.**

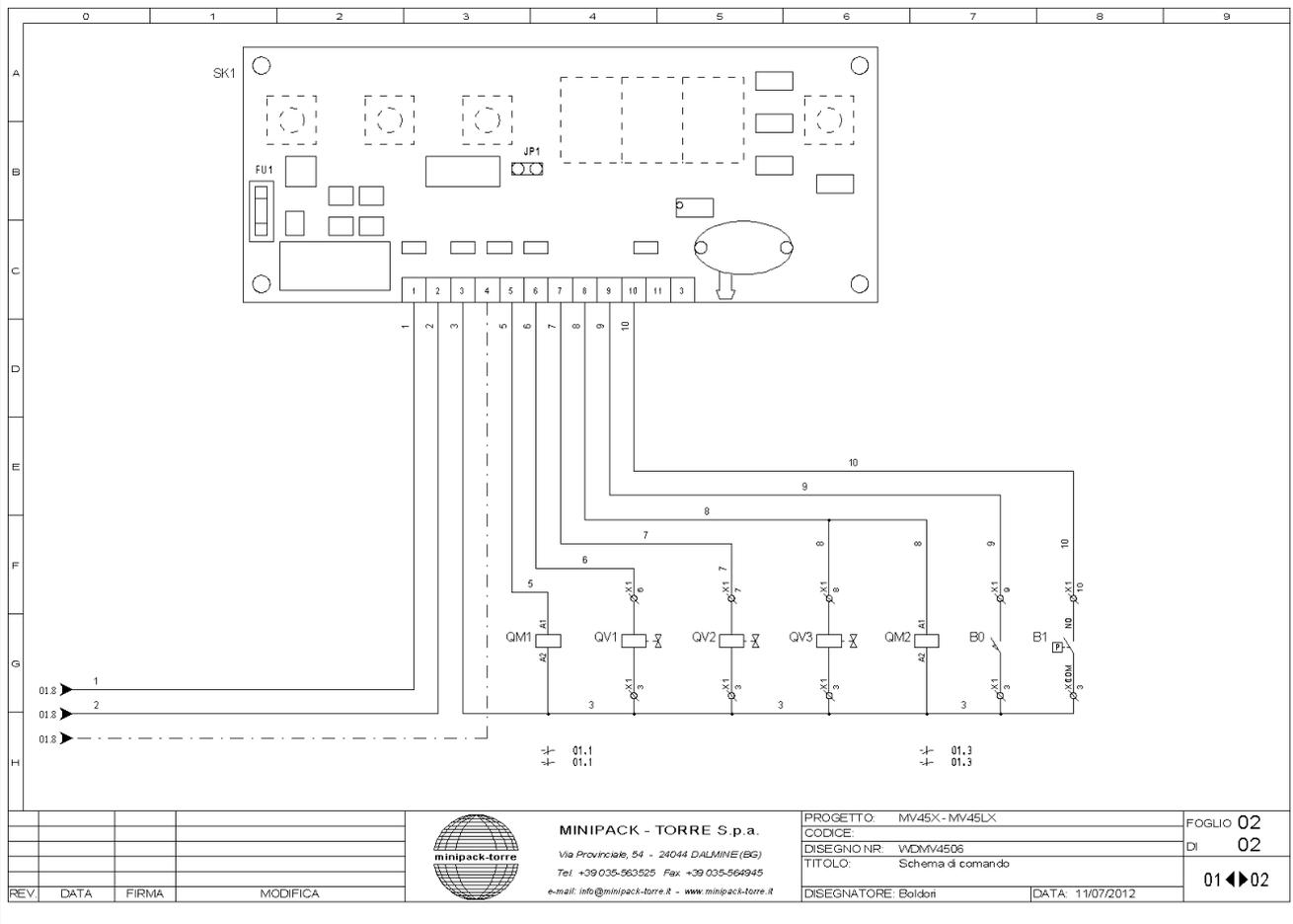
**7.8.**  
**mod. MV45 X, MV45L X, MV52 X**



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 e-mail: info@minipack-torre.it - www.minipack-torre.it

PROGETTO: MV45X - MV45LX  
 CODICE: WDMV4506  
 DISEGNO NR: Schema di potenza  
 TITOLO: Schema di potenza  
 DISEGNATORE: Boldori DATA: 11/07/2012

FOGLIO 01  
 DI 02  
 01 ◀ ▶ 02

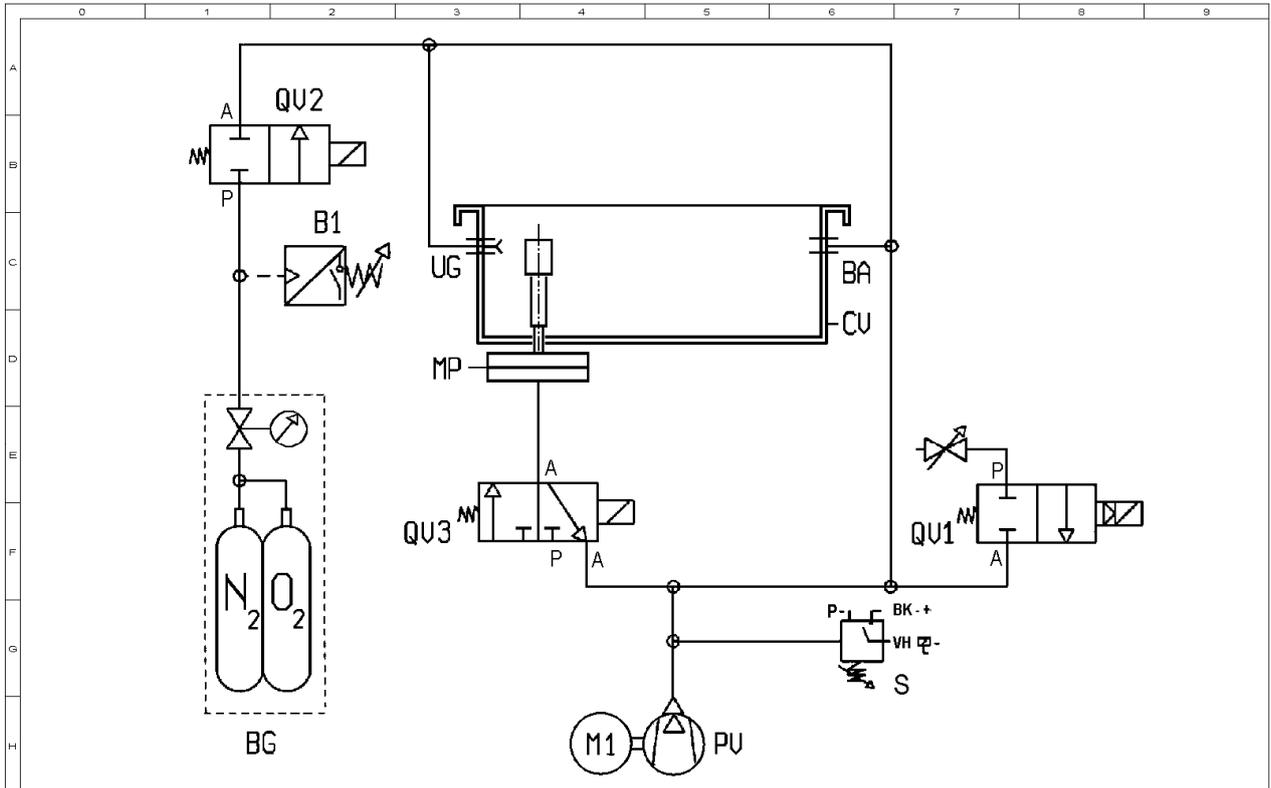


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PROGETTO: MV45X - MV45LX  
 CODICE: WDMV4506  
 DISEGNO NR: Schema di comando  
 TITOLO: Schema di comando  
 DISEGNATORE: Boldori DATA: 11/07/2012

FOGLIO 02  
 DI 02  
 01 ◀ ▶ 02

7.9.



REV.	DATA	FIRMA	MODIFICA

PROGETTO: MV	FOGLIO 01
CODICE:	DI 01
DISEGNO NR: PDMV	
TITOLO: SCHEMA PNEUMATICO	
DISEGNATORE:	DATA: 07/07/2010