



Minipack-torre S.p.A.

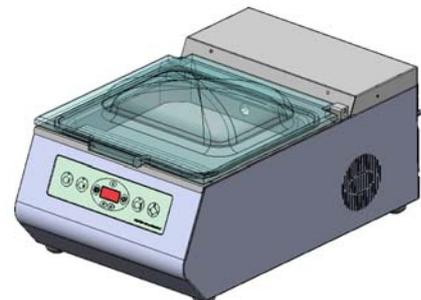
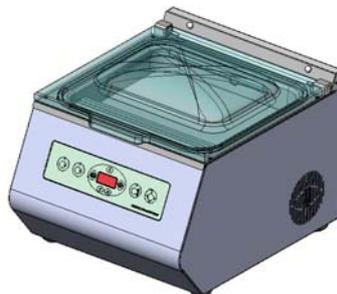
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IT ISTRUZIONI PER L'INSTALLAZIONE, L'USO E LA MANUTENZIONE
EN INSTALLATION, OPERATION AND MAINTENANCE
DE INSTALLATIONS-, GEBRAUCHS- UND WARTUNGSANLEITUNG
FR INSTRUCTIONS POUR L'INSTALLATION, L'EMPLOI ET L'ENTRETIEN
ES INSTRUCCIONES PARA LA INSTALACION, 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

mod. **MV26 X** 6m³ mod. **MV31 X** 6m³ mod. **MV35 X** 10m³



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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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.

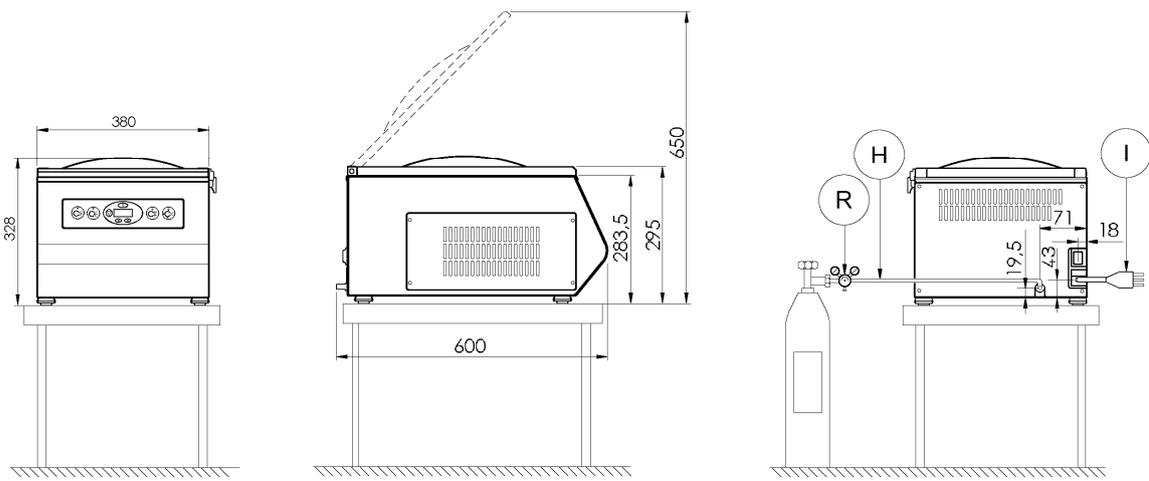
All reproduction rights of this manual are reserved to the manufacturer. Partial or complete reproduction is forbidden as provided by the law. Descriptions and pictures provided in this manual are not binding. Therefore the manufacturer, reserves the right to make any change considered necessary. This 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

MV26 X



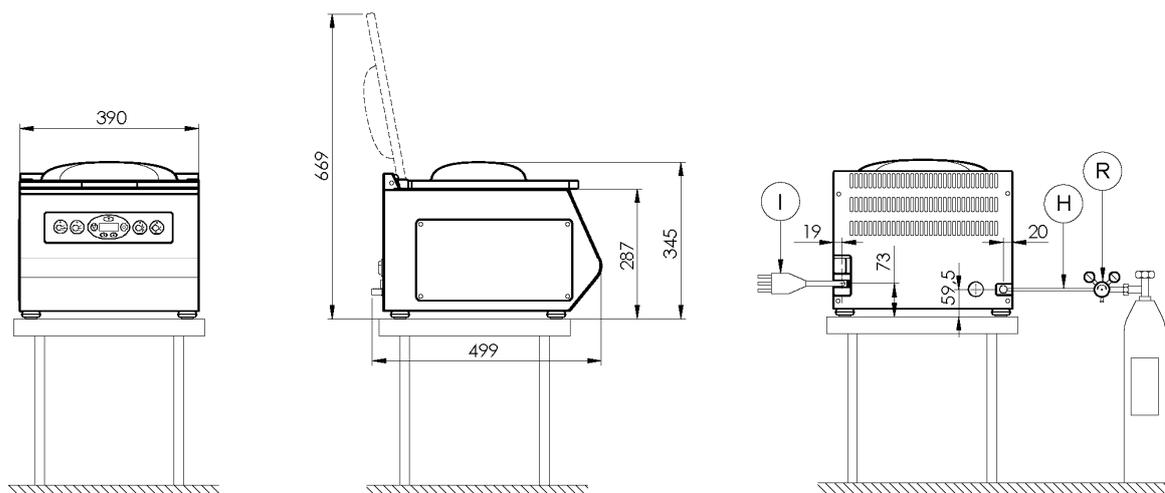
Package weight and sizes
 Width = 700 mm Length = 510 mm Height = 440 mm Weight = 39 Kg

Machine weight
 Weight = 34 Kg

Vacuum pump = 6m³

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

MV31 X



Package weight and sizes

Width = 610 mm Length = 520 mm Height = 420 mm Weight = 41 Kg

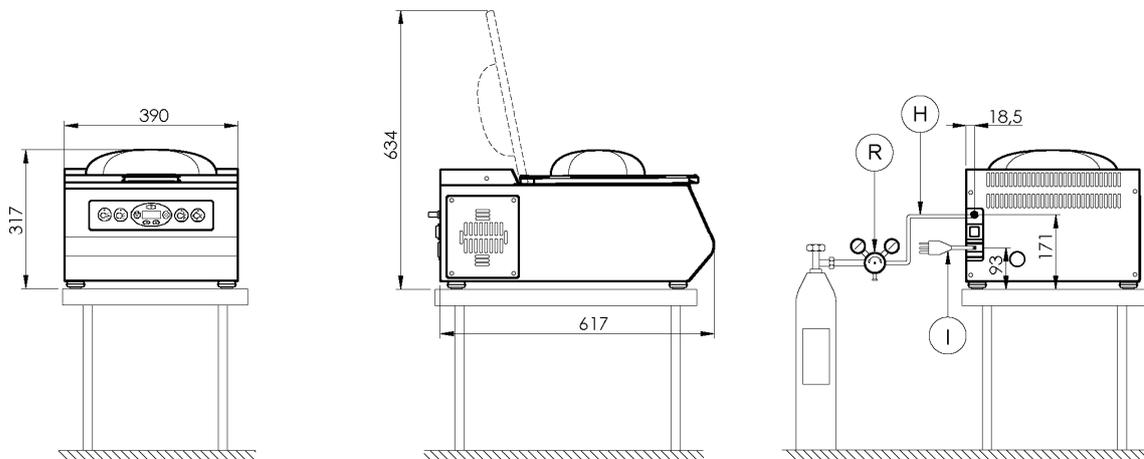
Machine weight

Weight = 37 Kg

Vacuum pump = 6m³

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

MV35 X



Package weight and sizes

Width = 710 mm Length = 460 mm Height = 485 mm Weight = 53 Kg

Machine weight

Weight = 45 Kg

Vacuum pump = 10m³

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

Electrical system

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.

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

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
MV26X (front bar)	265mm	375mm
MV26X (front and rear bar)	265mm	325mm
MV31X (front bar)	305mm	265mm
MV35X (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 (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.

- 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.

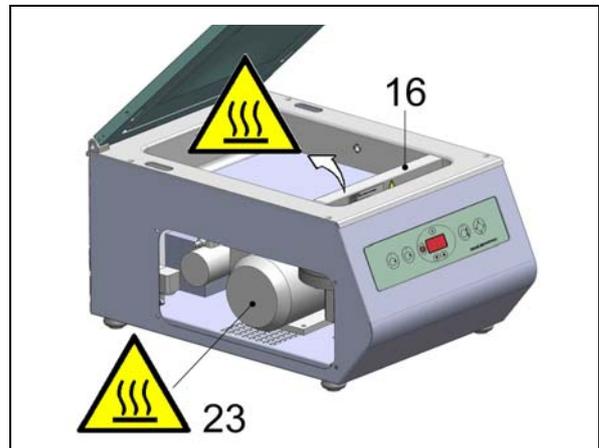
THE MACHINE CAN NOT BE USED BY UNTRAINED PERSONNEL!

	<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.

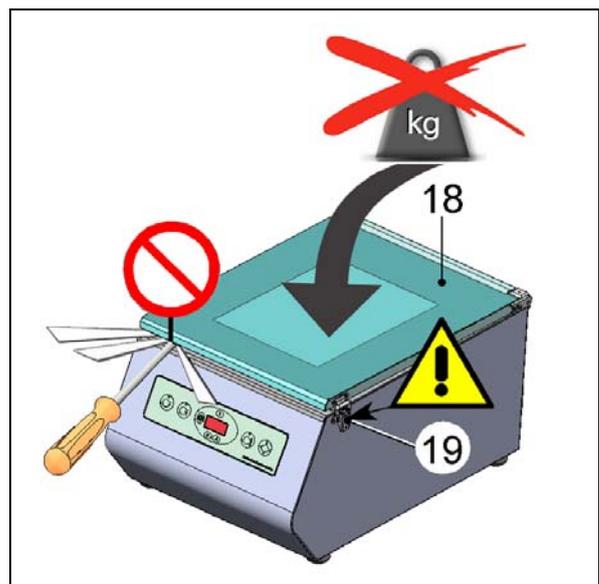
Do not proceed with packaging if the cover has cracks or is broken.

Replace it immediately.

For mod. MV26 X only.

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.



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"> When transporting and positioning the machine, it is recommended to handle it with great care! Neither overturn nor tilt the machine! Oil might come out of the pump and damage the machine.
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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.

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

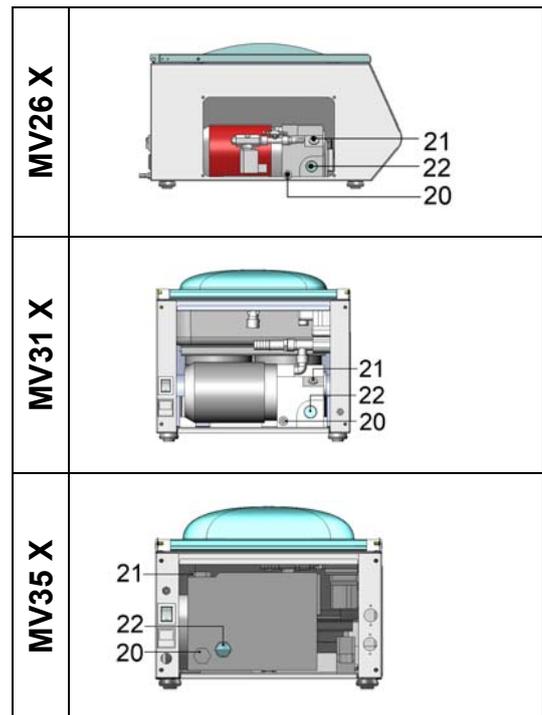
If the pump has no oil, to load, fully use the provided bottle.

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

To access inside the machine, remove the side panel (MV26X) or rear panel (MV31X, MV35X), 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



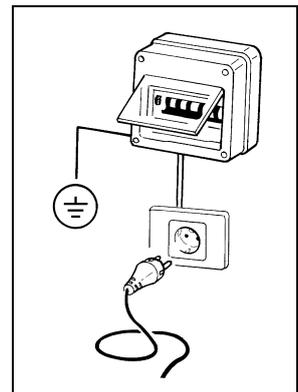
OBSERVE HEALTH AND SAFETY REGULATIONS!

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.



5.3.3. 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.

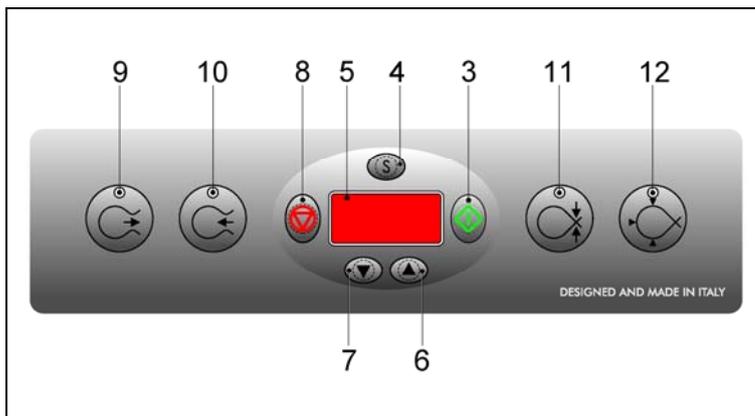
If the pressure is not correct, act on the knob of the pressure reducer (R) (see chapter 1.3.).

6.1. Adjustment

6.1.1. Control panel

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

- 3 Start button (models MV31 X and MV35 X only)
- 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

Set the main switch, located on the rear of the machine, to ON. 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. Selecting the programs and setting up the parameters

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 Start (3), for models MV31 X and MV35 X. Press Stop (8) for model MV26 X. 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 = 1,3÷1,5	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 1,6 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

6.1.4. 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.

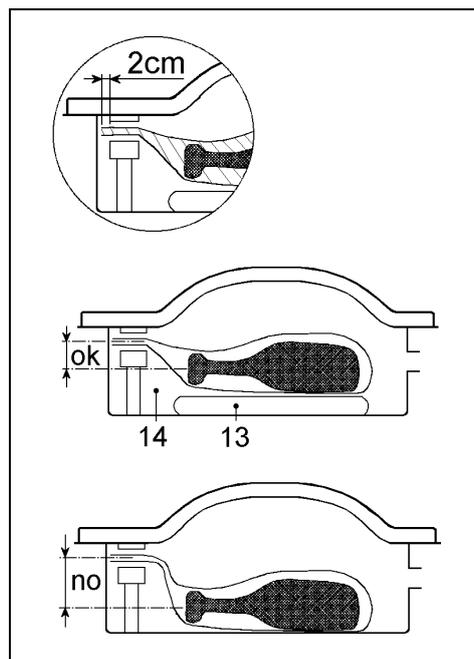
Close the upper Plexiglas cover.

Model MV26 X: the packaging cycle starts when the cover is closed.

Models MV31 X and MV35 X: Once the cover has been closed, press the Start button (3) to run the packaging cycle.

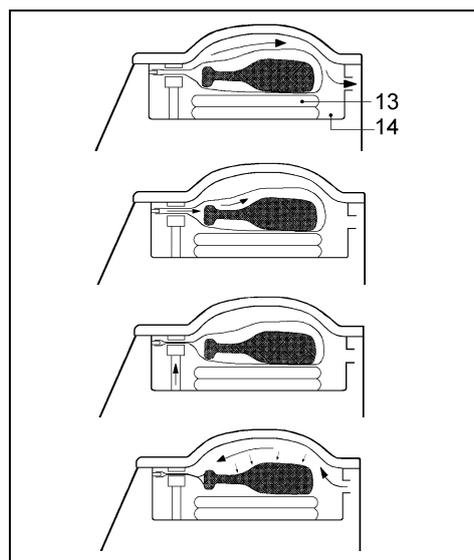
Note: When the product dimensions allow, we recommend using some tables (13) as shimming the product facilitates positioning the pouch in relation to the sealing bar.

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.



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.

6.1.5. 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.
- EAA:** The machine did not generate the vacuum within the defined maximum time (90 seconds).
Check that the cover is closed correctly.
To reset this alarm, switch the machine off and on again.
- FLA:** The power supply voltage is low.
Contact the technical service department.

7.1. Precautions for ordinary maintenance interventions

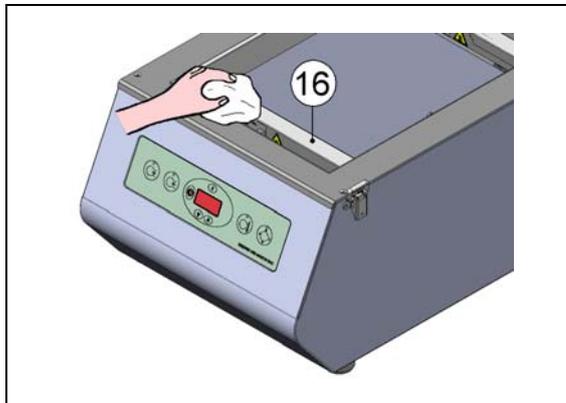
ORDINARY MAINTENANCE, MUST BE EXECUTED BY QUALIFIED STAFF APPROPRIATELY TRAINED.



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

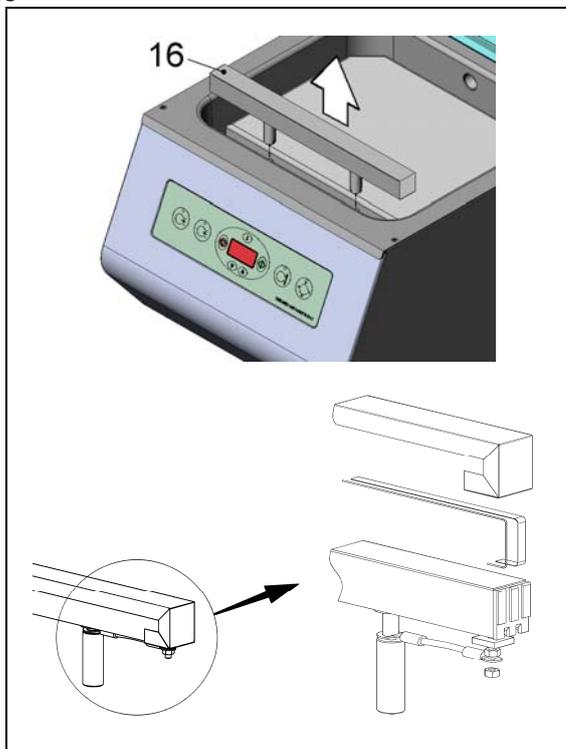
Use a dry cloth to remove any film residue on the sealing bar (16).



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.

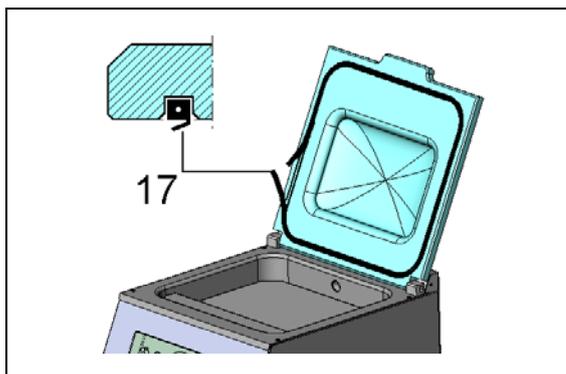
- Remove the sealing bar (16) from its seat
- Remove the Teflon adhesive tape
- Unscrew the nuts fastening the blades to each end of the sealing bar
- Tighten the new blades. Make sure they are tight enough before blocking them
- Use the Teflon adhesive tape to cover the sealing blades
- Place the sealing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



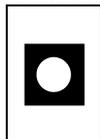
7.4. Replacement of the cover gasket

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.

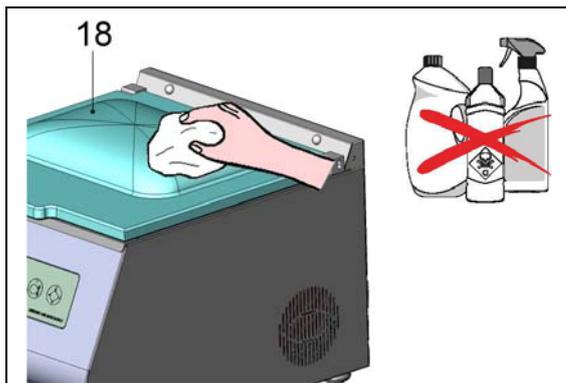


7.5. Cleaning machine



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.
- 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.

7.6. 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.

7.7. 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.

7.8. Wiring diagram**MV26 X (230V / 120V ETL)** (page 100).

B0	Limit switch
B1	Gas pressure switch
C1	Vacuum pump condenser
ER1/2	Sealing blade
K1	Power board
F1	Line fuse
F2	Line fuse
M1	Vacuum pump motor
Q1	Main switch
QV1	Air re-immission valve
QV2	Gas injection airvalve
QV3	Sealing airvalve
S1	Membrane keyboard
T1	Sealing transformer
X1	Power supply plug

MV31 X (230V / 120V ETL) – MV35 X (230V) (page 101).

B1	Gas pressure switch
C1	Vacuum pump condenser
ER1	Sealing blade
F1	Line fuse
F2	Line fuse
M1	Vacuum pump motor
Q1	Main switch
QV1	Air re-immission valve
QV2	Gas injection airvalve
QV3	Sealing airvalve
SK1	Electronic board
T1	Sealing transformer
X1	Power supply plug

MV35 X (120V ETL) (page 102).

B1	Gas pressure switch
C1	Vacuum pump condenser
ER1	Sealing blade
F1	Line fuse
F2	Line fuse
M1	Vacuum pump motor
Q1	Main switch
QF1	Magneto-thermal switch
QM1	Sealing blade contactor
QV1	Air re-immission valve
QV2	Gas injection airvalve
QV3	Sealing airvalve
SK1	Electronic board
T1	Sealing transformer

7.9. Pneumatic diagram (page 103).

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:

- 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. 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:

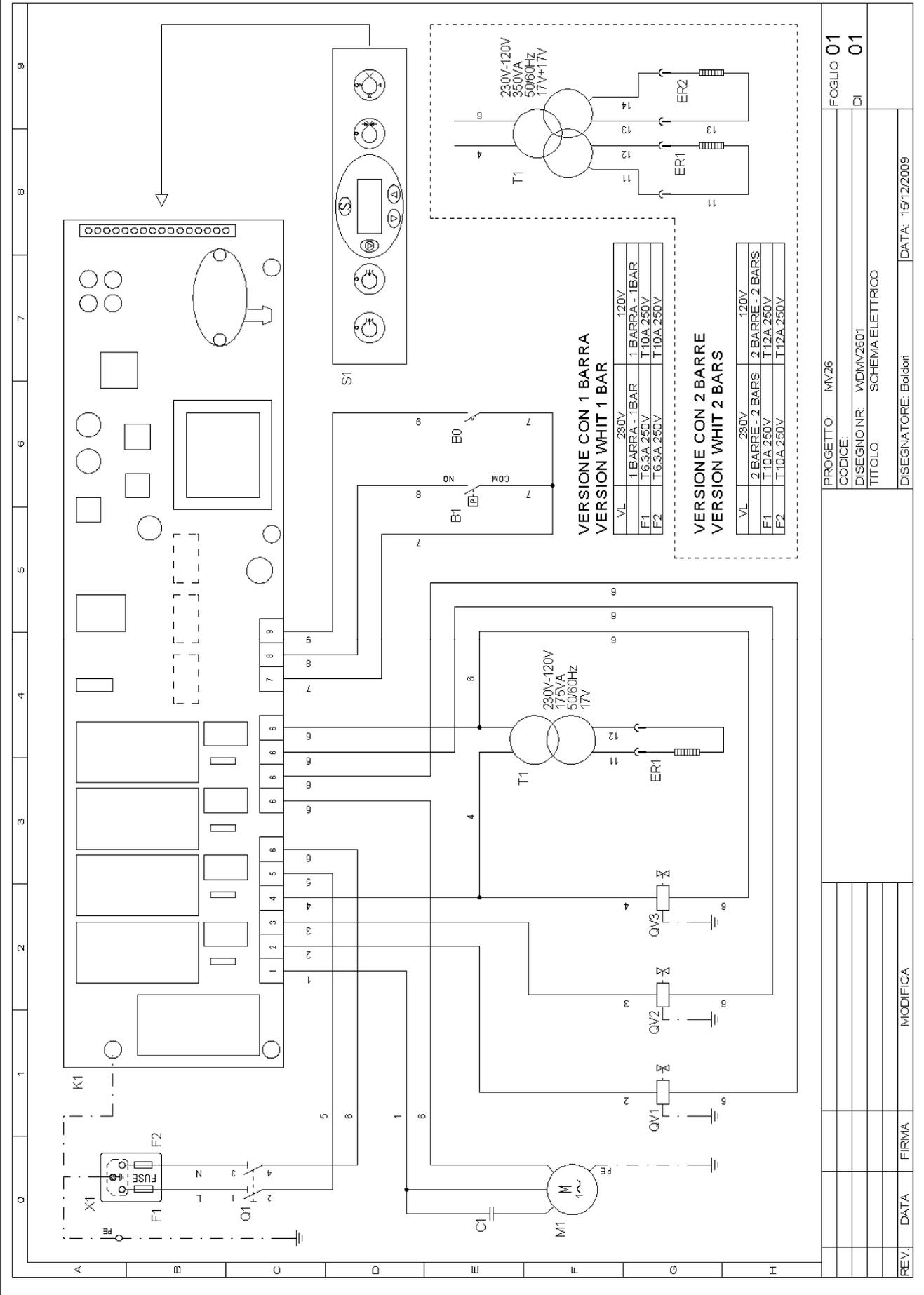
- in case of failure to mail the CERTIFICATE OF GUARANTEE, duly filled in and signed, with in 20 days after the date of purchase
- in case of inappropriate installation, power supply, misuse and mishandling by unauthorised persons
- in case of changes made to the machine without prior agreement in writing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

The manufacturer 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. MV26 X (230V / 120V ETL)

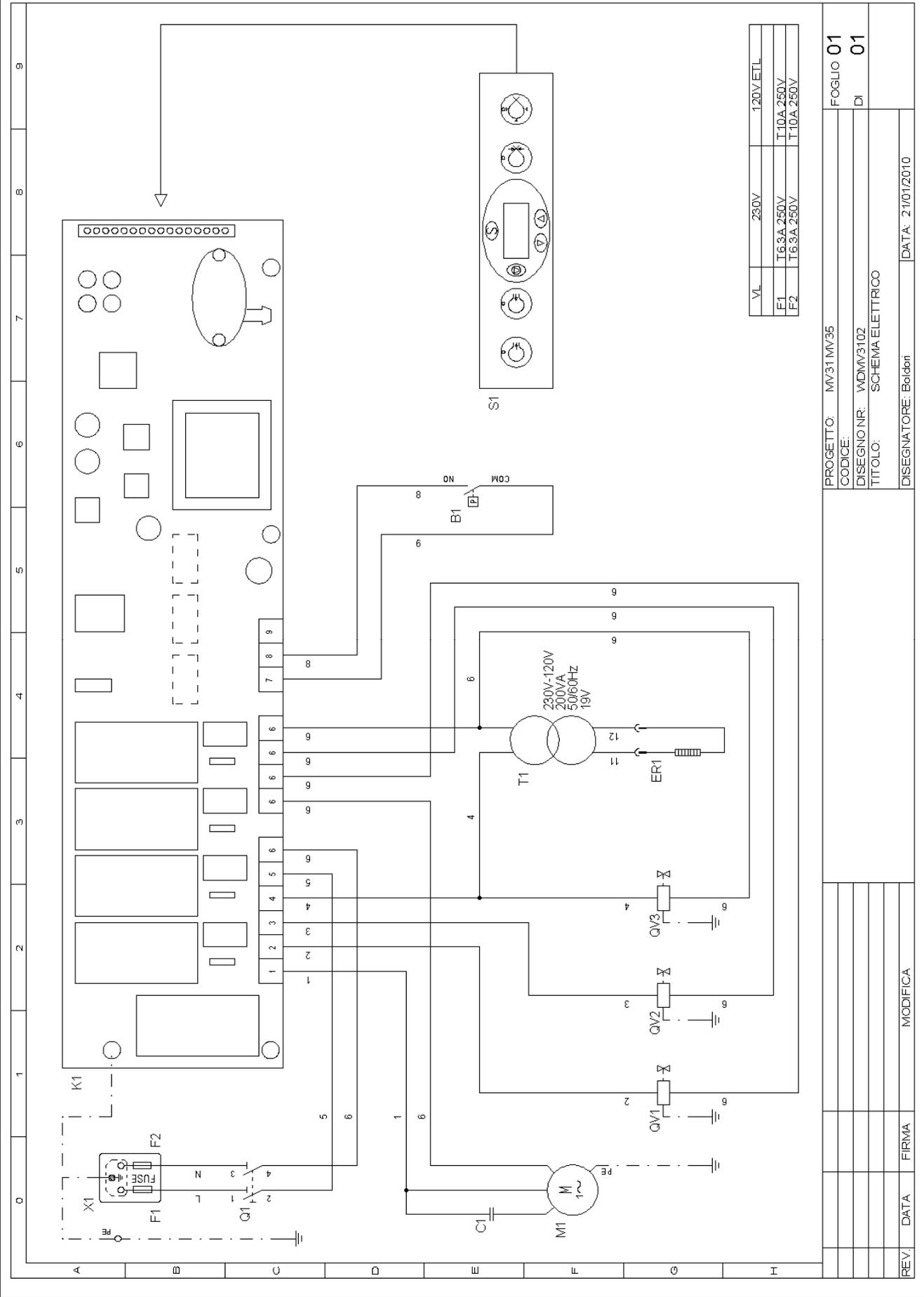


PROGETTO: MV26
 CODICE:
 DISEGNO NR: WDMV2601
 TITOLO: SCHEMA ELETTRICO
 DATA: 15/12/2009

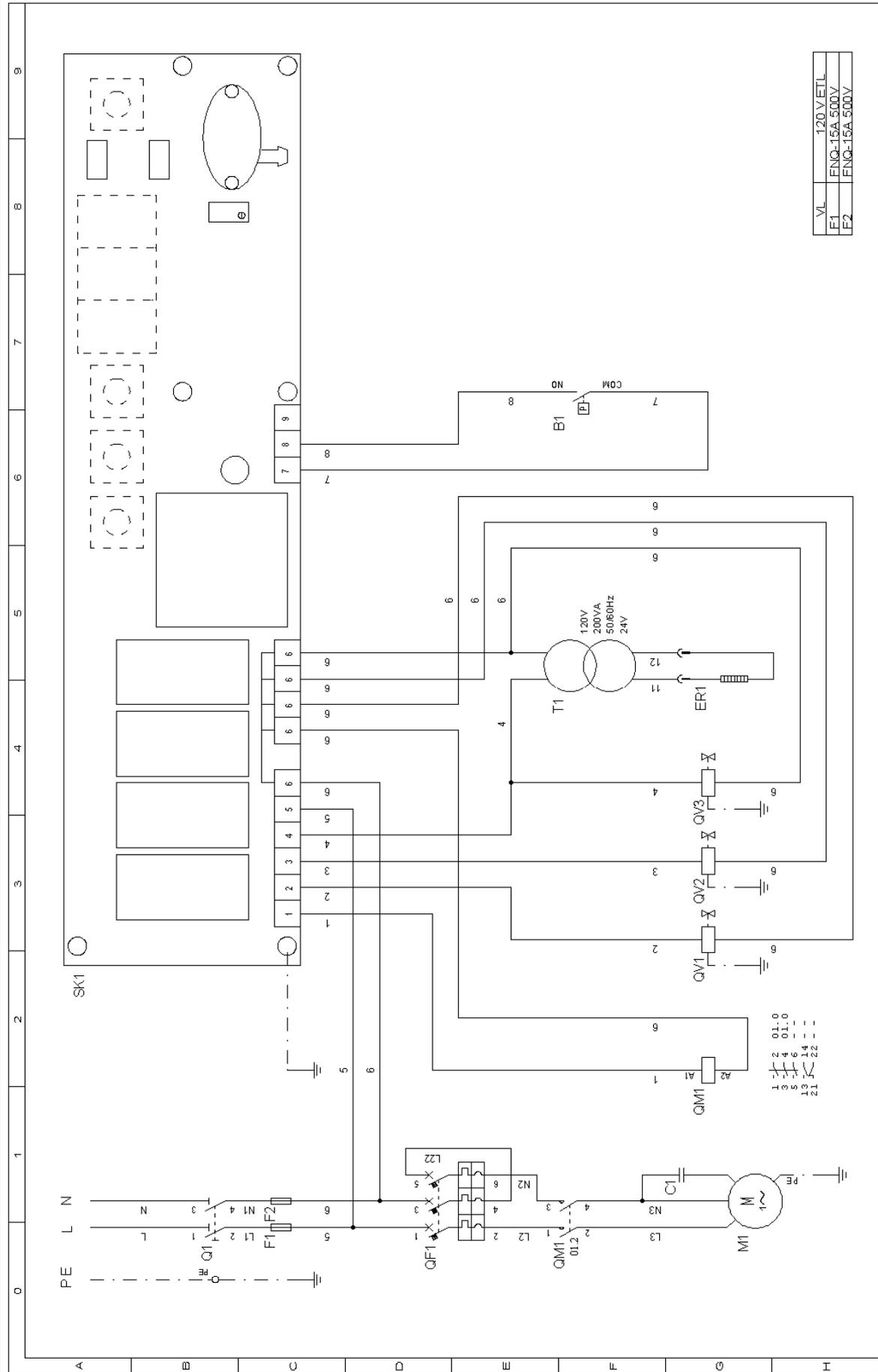
REV	DATA	FIRMA	MODIFICA

FOGLIO 01
 DI 01

7.8. Mod. MV31 X (230V / 120V ETL) – MV35 X (230V)



7.8. Mod. MV35 X (120V ETL)

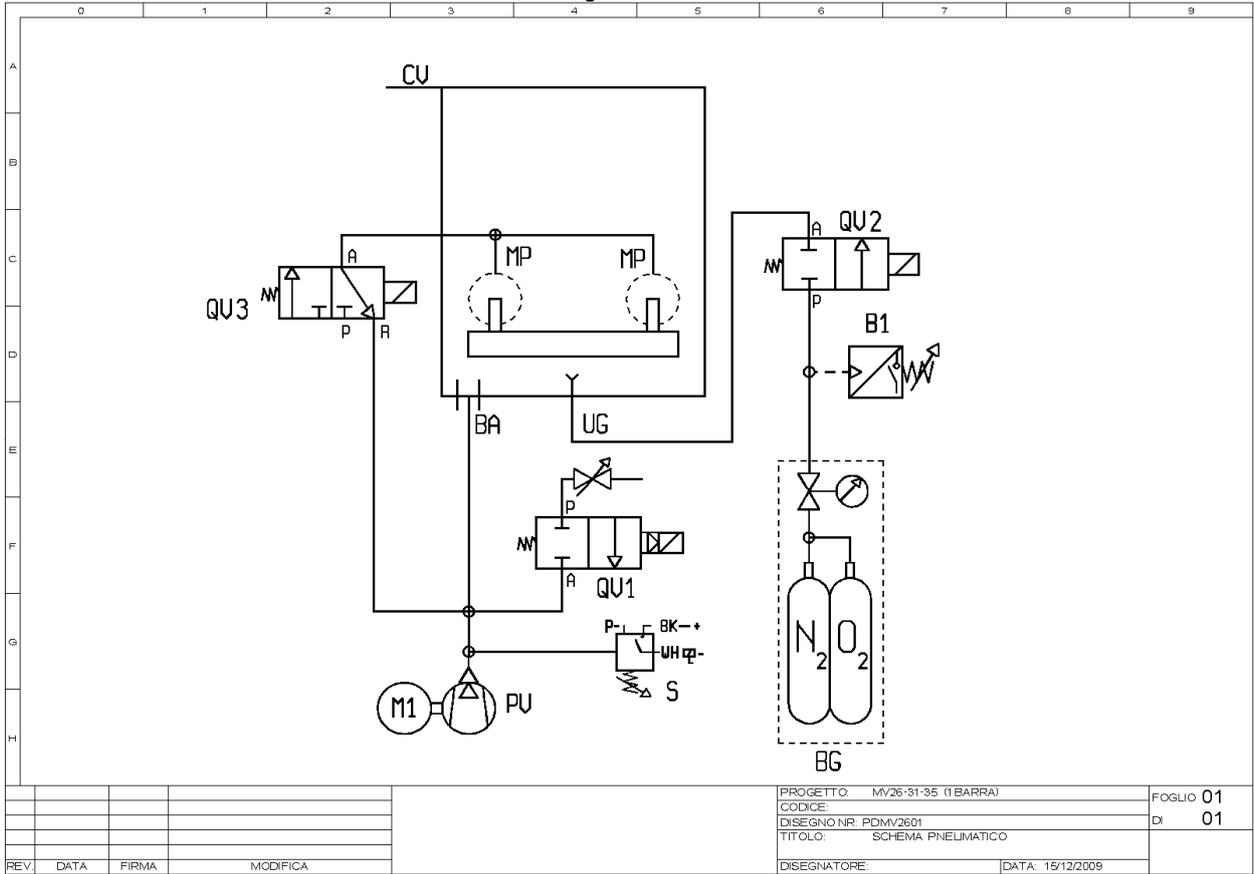


PROGETTO:	MV35	FOGLIO	01
CODICE:		DI	01
DISGNO NR:	WDMV3502	SCHEMA ELETTRICO	
TITOLO:			
DISGNATORE:	DATA: 04/06/2007		

REV.	DATA	FIRMA	MODIFICA

7.9.

Versione con 1 barra saldante / Version with 1 sealing bar



Versione con 2 barre saldanti / Version with 2 sealing bars

