

Vacuum packaging machines

Mod. 300301



*INSTRUCTIONS FOR INSTALLATION,
USE AND MAINTENANCE*

This installation and use instruction book refers to the vacuum packaging machines 300301 model. These machines are used for the vacuum or controlled atmosphere packaging of food thus eliminating any possible contact with oxygen, chemical and biological contaminants present in the environment. These results are achieved thanks to the possibility of obtaining the desired vacuum degree by the almost complete air extraction from inside the packaging. In this way the product maintains its characteristics of colour, taste, flavour, etc., for a longer time. The rating plate is positioned at the rear of the machine and contains all necessary data for the installation : type, consumption, voltage, etc.

INSTRUCTION FOR INSTALLATION

▪ DRAWING OF THE EQUIPMENT

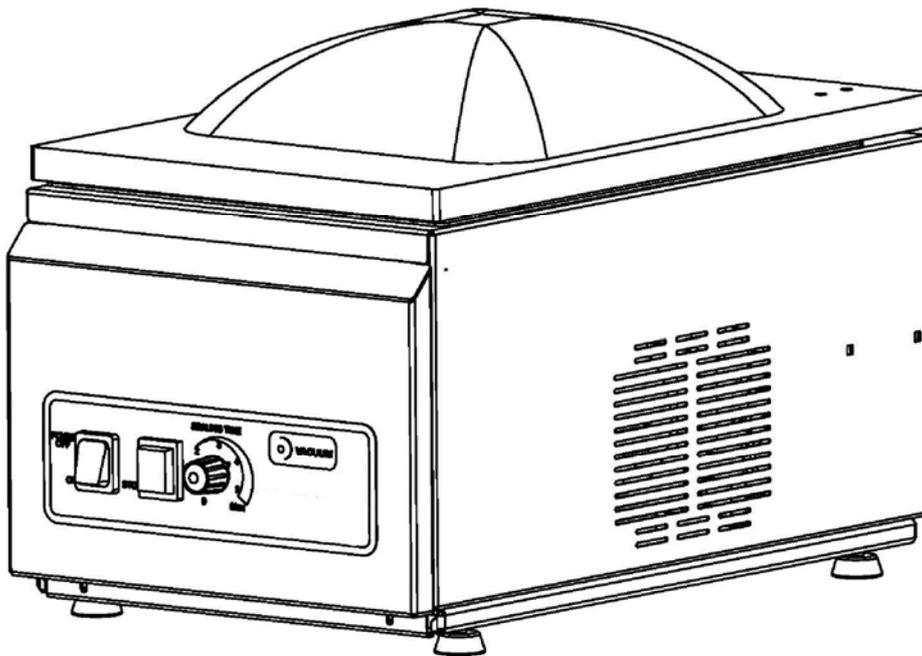


Fig. 1

▪ TECHNICAL DATA

Model	External dimensions	Chamber dimensions	Sealing bar	Voltage	Power	Vacuum pump
	LxPxH (mm)	LxPxH (mm)	mm		W	m ³ /h
300301	306x512x265	256x370x125	250	230V~	500	8

▪ **INSTALLATION**

Installation, assembly and troubleshooting must only be performed by skilled personnel strictly in accordance with the following instructions :

- Remove the machine from the packing and throw away the protection pieces.
- Remove the protection film from the equipment and the strap from the cover.
- Keep a minimum distance of 10 cm. all around the machine in order to allow adequate cooling of the pump during running (the machine could have difficulties to reach the desired vacuum).
- Set the machine perfectly straight by adjusting the supporting feet until the correct position has been reached. A wrong alignment of the machine could affect the performance during running.
- For the installation of the machine an omnipolar switch must be mounted between the power network and the equipment and it must have a minimum contact distance of at least 3mm per pole. Allow easy access to the switch.
- The rating plate is on the rear of the machine. From the plate can be checked if the equipment is set to run with the available line voltage. Check that the available power voltage matches the one printed on the rating plate.
- During running of the machine the voltage must be within +/- 10% of the correct rating.
- Earthing the equipment is mandatory in order to avoid damaging the electronic board.
- It is strictly mandatory to comply with the fire regulations!

▪ **DIRECTIONS**

ATTENTION : To avoid spilling oil from the pump which could damage the equipment never turn the machine upside down or incline it.

THE EQUIPMENT MUST BE PLACED IN A WORKING ENVIRONMENT WITH AN AMBIENT TEMPERATURE NOT LESS THAN 12°C.

▪ **LEGAL REGULATIONS, TECHNICAL RULES AND DIRECTIVES**

During the installation the following rules and regulations must to be observed :

- Legal regulations in force (to be defined Country by Country)
- Accident protection requirements and laws in force (to be defined Country by Country).

▪ **ELECTRICAL CONNECTION**

See enclosed wiring diagrams.

Check the power supply and voltage with the rating on the plate. The machine is supplied with cable and plug.

▪ **REPLACING OF THE CONNECTING CABLE**

In case of cable replacement check the electrical scheme.

The replaced cable must not be less than type H05 RN-F in quality and shall have a minimum wire section of 3x1,5 mm² .

During connection carefully make sure that the earth wire is longer than the others. In case of an unexpected strong pull on the cable or in case the cable clamp breaks the earth wire must be the last to disconnect from power.

The machine can only be started after having checked that all these safety precautions have been carefully observed.

▪ **STARTING OPERATION**

In the function of the machine 4 different phases can be distinguished which take place in sequence after closing the lid. Now the machine starts its operation :

- Suction phase : At the beginning of the operating cycle the pump creates the vacuum by sucking the air from the chamber and from the bag containing the food to be preserved.
- Sealing phase (sealing of the bag containing the food to be packaged) : the sealing bar has one sealing strips for the airtight seal of the bag. Depending on the thickness of the bags used, the sealing temperature has to be increased or decreased.
- Air intake phase : Air re-enters the chamber bringing again the atmospheric pressure conditions in the chamber. A valve allows the air intake into the chamber.

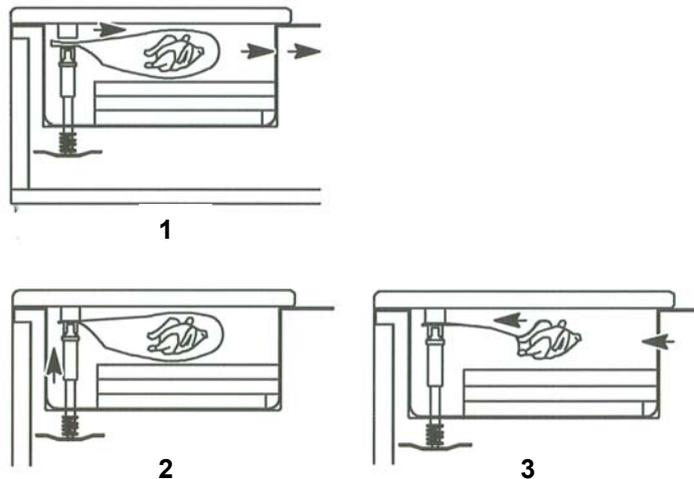


Fig. 2

▪ **OPERATOR INFORMATION**

Train the operator on the equipment with the help of the instruction book. Always hand over the instruction book to the operator.

Suggest the operator contracts for the maintenance service.

USE AND MAINTENANCE

The vacuum packaging machines are for general use and therefore must be operated only by qualified staff. All installation and connection work must be performed only by qualified staff and in accordance with this instruction book.

During use the machine must be attended.

Never clean and wash the machine by means of direct pressure water jet.

▪ **POSITIONING OF THE BAG IN THE CHAMBER**

The bags normally used for vacuum packaging are as a rule made from two layers of nylon externally and food grade polyethylene internally with thickness from 90 to 140 microns, depending on the type of product to be packaged.

For the positioning of the bag inside the equipment see fig. 3.

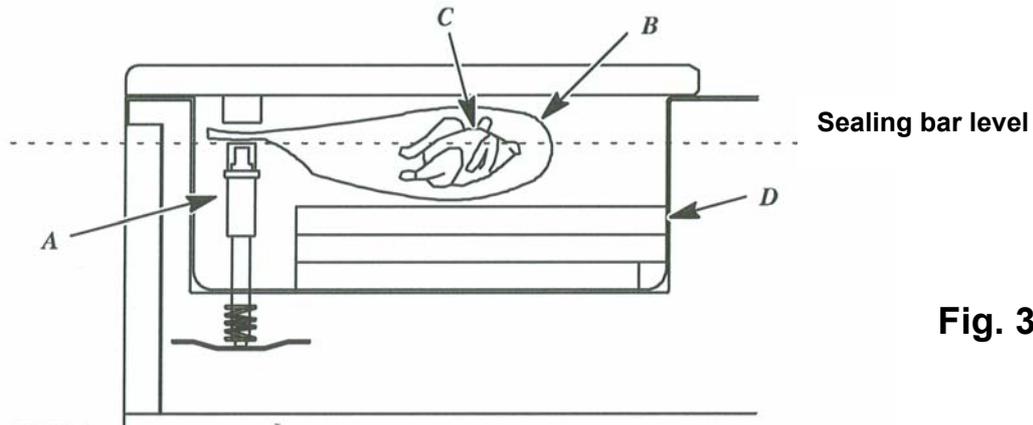


Fig. 3

The product C must be perfectly in line with the sealing bar A, this is achieved by regulating the trenchers D (these trenchers allow in fact the lining up of the product and the filling up of the chamber for a quicker vacuum effect).

The bag B must be carefully placed on the sealing bar A in order to avoid folds which could affect the sealing.

The bag must never be bent at the back of the sealing bar.

The bag B must have a surplus of at least 2 cm beyond the sealing bar A.

▪ **INSTRUCTIONS**

Plug into the socket paying attention not do damage the cable by squashing under the equipment

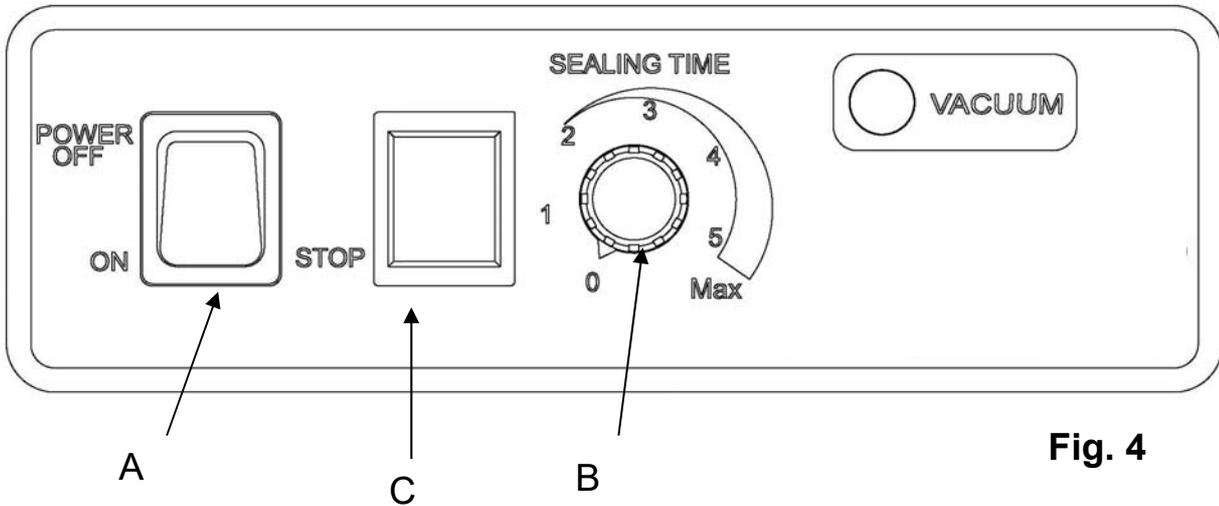


Fig. 4

- Push the main switch ON/OFF (A).
- Set the sealing time (about 3 seconds for embossed bags with a thickness of 90 micron) by turning the potentiometer B.
- Position the bag, with relative product to be vacuum packed, as per fig. 2.
- Lower the machine lid and keep it pushed down for a few seconds until the bag completely wraps the product : the machine will automatically carry out the vacuum packaging and relative sealing of the bag (during the vacuum pahse, the warning light VACUUM lightens).
- The lid automatically lifts up at the end of cycle.
- In case you want to interrupt the cycle without sealing, it is necessary to push the main switch ON/OFF (A).
- In case you want to vacuum pack the product with a lower vacuum degree and seal the bag, it is necessary to push the button STOP (C) and wait for a few seconds until the cover lifts up.

▪ **NOTICE**

Do not touch the wires of the sealing bar right after the sealing process (they are still hot).
 Do not proceed to seal if the sealing bar is damaged and immediately replace it.
 Do not run the equipment if the chamber is wet or damp.
 During packaging of liquid products make sure that the liquid will not be sucked by the pump.
 Should any malfunction be noticed, shut down the equipment, disconnect the power and call the maintenance service.

▪ **PRESERVATION TIME**

It is not easy to define the precise preservation time because of the many different parameters that have to be considered, i.e. nature of the product, freshness of the product at the moment of packaging, temperature of the product, the environment and storage after packaging, real vacuum achieved in the bag, hygienic conditions of the tools used, etc. .

▪ **LIMITATIONS AND CONDITIONS OF USE**

ATTENTION : It is absolutely forbidden to package the following products in order to avoid damaging the machine and risk accidents to the operator :

- flammable or explosive materials and gas pressure bottles
- loose powders and volatile products (flour, sugar, etc.)

If liquid products are frequently packaged the oil must be checked frequently and replaced. In fact the vapors, produced by the liquids under vacuum conditions, mix with the oil reducing its lubricating characteristics.

▪ **TROUBLESHOOTING**

Following are few of the common troubles that can be solved without calling the maintenance service.

Trouble	Cause	Action
Nothing is shown on the display	The main switch is OFF	Main switch ON
	Plug not in the socket	Plug in
	Cable damaged	Check the cable and replace it if necessary
The pump does not work	The oil is spoiled	Controllare l'olio della pompa ed eventualmente sostituirlo
	The room temperature is lower than 12°C	Place the equipment in a room with a temperature higher than 12°C
The bar does not seal	Sealing time not long enough	Reset the sealing time
	Electrical terminals of the sealing bar are not connected	Connect the electrical terminals of the sealing bar
The machine cycle stops at 97% and does not run further	Humidity of the air (this happens rarely)	Put the equipment in a dry environment
		Reduce the vacuum down to 97%
		Proceed with manual sealing (key STOP)
The lid doesn't close properly	Lid gasket is damaged	Change the gasket
	Problem with the hinges of the lid	Call the service

Should it not be possible to solve the problem after having checked the above suggestions call the maintenance service.

▪ **VACUUM PUMP MAINTENANCE**

Check periodically the oil level indicator of the pump (on the rear of the equipment) : an oil level over the allowed maximum could cause clogging of the filter.

An oil level too low could cause a poor vacuum level and damage the pump.

Every 200 pump operating hours or at least every 6 months it is advisable to change the oil.

The pumping of pollutant compounds may require more frequent oil changes.

If the oil appears dark, turgid or thick, the oil has lost its lub properties and needs to be changed immediately.

▪ **CLEANING AND MAINTENANCE**

ATTENTION : never use direct pressure water jet for cleaning.

Before any maintenance disconnect the machine from the power source.

- Cleaning can be started only when the equipment has cooled down. Cleaning the equipment is very important. Good cleaning ensures the smooth operation of the machine and gives a good impression to the customers.
- Pay attention not to spill any liquids over the electrical contacts of the sealing bar.
- Make sure that dust, waste or liquids are not in the chamber suction pipe.
- The stainless steel parts must be cleaned with water and appropriate detergent (do not use abrasive products). Do not use metal brushes, their use could rust the equipment. Do never and for no reason use acid containing detergents.
- Using a dry cloth remove any film slops which remain on the sealing bar. This operation should be carried out right after the sealing in such a way that the film slops, still hot and can easily be removed.
- The sealing bar can be removed by slightly pushing the bar upwards. Attention when replacing the sealing bar : install it with the flat wire turned towards the inside of the chamber.
- For cleaning of the Plexiglass lid use a wet chamois-type cloth or similar. **IN ORDER NOT TO DAMAGE THE LID NEVER USE OTHER DETERGENT PRODUCTS.**
- Before any long stand-by of the machine proceed carefully with the cleaning as described above.

▪ **REPLACEMENT OF THE SEALING BAR TEFLON**

Disconnect the equipment from the power network and wait for the bar to cool down.

Remove the sealing bar from the seating and disconnect the electrical terminals.

Remove the Teflon tape, clean the sealing bar with a cloth dipped in a detergent "with nitre" and replace the Teflon tape paying attention not to bend the wire of the sealing bar.

Re-connect the electrical terminals and re-install the sealing bar in the seating.

▪ **REPLACEMENT OF THE LID GASKET**

When the lid gaskets looks spoiled or damaged it is good practice to replace it in order not to compromise the efficiency and the speed of the machine.

After removing the old gasket replace the new one in the appropriate lid seating paying attention that the two ends of the gasket are tightly joined together.

No gap should be left otherwise the vacuum will not be achieved.

Do not stretch the gasket when fitting-in into the appropriate lid seating.

▪ **RESIDUAL RISKS**

The residual risks that employees may be exposed to are:

Employee task carried out	Danger and potential risk	Possible harm	Residual risk assessment		
			P	D	R
Using machines	Direct or indirect contact with live parts	Electric shock	1	3	3
	Squashing fingers during manual closing of tray	Contusion	1	1	1
	Contact with hot surfaces (edges of trays)	Burns	1	1	1
Maintenance: oil change pump	Contact with oils	Dermatitis	1	1	1

The residual risks that cannot be avoided must be considered when selecting personal protective equipment and/or can thereby be reduced. Residual risks and personal protective equipment are listed in the user and maintenance manual that is supplied to the customer.

▪ **INDIVIDUAL PROTECTIVE MEASURES**

The purpose of the use of personal protective equipment and clothing is to protect a certain part of the body from specific risks in connection with operational work.

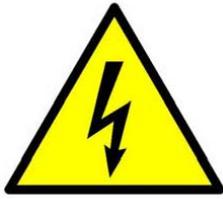
In principle, it should only be used if primary measures to eliminate the risks are no longer adequate to ensure the complete avoidance of harmful substances and therefore the health and safety of the worker.

The use of the machines requires the use of the following protective equipment:

Activity	Suitable individual protective equipment	Standard guideline
Maintenance: oil change pump	Gloves against chemical risks (e.g. made of rubber, neoprene or nitrile)	EN 374
Mechanical maintenance	Gloves against mechanical risks	EN 388
	Safety glass	EN 166

Depending on the conditions of the working environment in which the machine is installed, the list above does not exclude the possible need to use other personal protective equipment.

- **SAFETY LABELING:** the device provides various safety indications:



TENSIONE ELETTRICA
VOLTAGE
TENSION
SPANNUNG
VOLTAJE ELÉCTRICO



CAUTION
HOT
SURFACES

- **WARNING**

- Get rid of the machine in a proper way following the national disposal rules.
- Always protect the machine from the intervention of not authorized persons.



VACUUM PACKAGING IN THE FOOD SECTOR

With the vacuum packaging two main results for better preservation are achieved :

- no air in the packaging bag
- reduction of air in the product to be preserved

Thanks to vacuum packaging the product does not oxidize and does not decompose and can be preserved longer.

The preservation time can be enhanced by combining a freezing process with the vacuum process.

In this case the results are exceptional.

USING IN CATERING AND RESTAURANTS

Preparation of dishes in restaurants during peak hours is critical. During these hours all working plans of the restaurant have to be overruled. In these circumstances the prepared dishes normally suffer poor quality.

Vacuum packaging represent an important aid for the restaurants and the chef. In fact the preparation of juices, sauces and other products frequently used in kitchens can be done in advance and the products can be stored "ready to use".

VACUUM PACKAGING AND PRE-COOKED FOOD

During the cooking process the food gets in contact with the air and partially oxidizes, thus losing taste and part of the nutrient properties.

Cooking the food in vacuum packaging eliminates this trouble because the product is protected in a heat-resistant bag and therefore maintains its organoleptic properties.

VACUUM COOKING

In Italy as well as in France and in Germany the vacuum packaging of previously cooked food is becoming more and more normal practice.

In this way the taste and the nutrient characteristics of the food can be preserved satisfying every requirements (also during peak hours in restaurants).

Heating up the vacuum packaged product at the desired temperature is all that is required.

VACUUM PACKAGING AND SLAUGHTERING

One of the major problems of the slaughtering process is the maturing (seasoning) of the meat that normally takes place in refrigerated rooms. This operation involves loss of weight due to the oxidation process and superficial drying of the meat.

With the vacuum packaging the maturing process of the fresh meat becomes longer, the meat remains tender and taste is better. Thanks to the absence of air in the bag, vacuum packaged meat looks better and does not decompose.

VACUUM PACKAGING AND RETAIL STORES

Thanks to the type of package, the extended preservation time and the perfectly hygienic conditions, the vacuum packaged products are very well seen and accepted by the consumers.

**THE MANUFACTURER DECLINES TO TAKE ANY RESPONSIBILITY IF
THE RULES WRITTEN IN THIS INSTRUCTION BOOK HAVE NOT BEEN
STRICTLY OBSERVED.**