

Manuale d'istruzione  
Operating and service manual  
Mode d'emploi et d'entretien  
Bedienungs- und Wartungshandbuch  
Manual de uso y mantenimiento

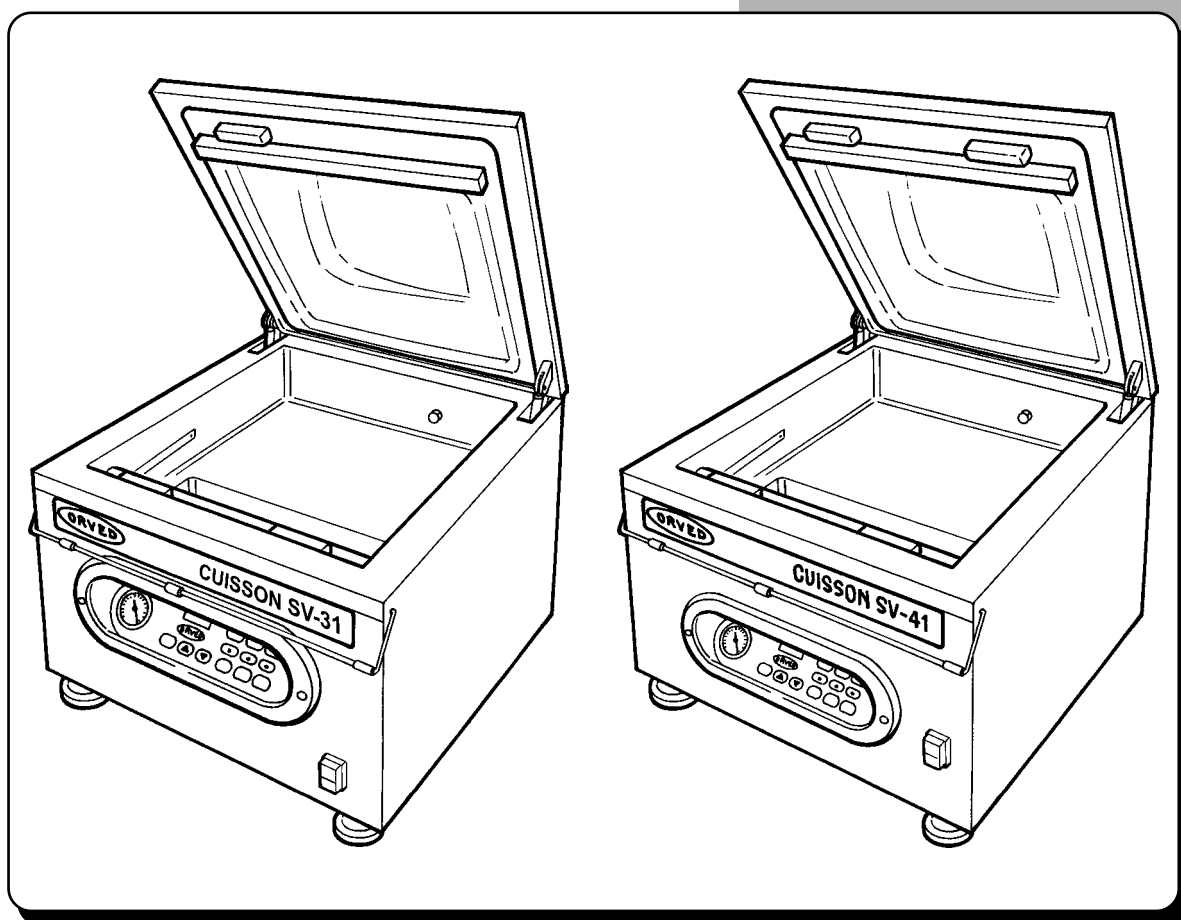


REV. 01  
Ed. 11 - 2008

Cod.: 1500288

CONFEZIONATRICI SOTTOVUOTO A CAMPANA CON COMANDI DIGITALI - MARCATURA BUSTE CON DATA E LOTTO - INIEZIONE GAS.  
VACUUM PACKER WITH DIGITAL CONTROLS - BAG PRINTING: DATE AND BATCH NUMBER - GAS INJECTION  
CONDITIONNEUSES SOUS VIDE À CLOCHE AVEC COMMANDES NUMÉRIQUES - MARQUAGE SACHETS AVEC DATE ET LOT - INJECTION GAZ  
KAMMER-VAKUUM-VERPACKUNGSMASCHINEN MIT DIGITALEN STEUERUNGEN - BEUTELBEDRUCKUNG MIT DATUM UND LOSNUMMER - BEGASUNG  
ENVASADORAS AL VACÍO DE CAMPANA CON MANDOS DIGITALES - MARCADO DE BOLSAS CON FECHA Y Nº DE LOTE - INYECCIÓN DE GAS

IT  
EN  
FR  
DE  
ES



# CUISSON SV-31

# CUISSON SV-41



AZIENDA CON  
SISTEMA DI GESTIONE  
PER LA QUALITÀ  
CERTIFICATO DA DNV  
=UNI EN ISO  
9001:2000=

COMPANY WITH  
QUALITY MANAGE-  
MENT SYSTEM  
CERTIFIED BY DNV  
=UNI EN ISO  
9001:2000=

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## L'INDUSTRIA DEL SOTTOVUOTO

THE VACUUM PACKAGING INDUSTRY  
L'INDUSTRIE DU SOUS VIDE  
DIE VAKUUMVERPACKUNGSINDUSTRIE  
LA INDUSTRIA DEL VACIO

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**EN** In thanking you for the preference shown, the Manufacturer welcomes you among our customers and trusts that you will be fully satisfied with the machine.

This Operator's Manual serves as a reference and guide for correct and rapid identification of the machine in all its parts and versions.

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**DE** Die Herstellerfirma dankt Ihnen für Ihre Wahl und freut sich, Sie zu ihren treuen Kunden zählen zu dürfen. Wir sind überzeugt, daß Sie der Gebrauch dieser Maschine voll zufriedenstellen wird.

Die vorliegende Bedienungsanleitung dient als Bezugspunkt für einen korrekten Gebrauch und eine rasche Identifizierung der Maschine in allen ihren Teilen und Versionen. Die Zeichnungen, Tabellen und der sonstige Inhalt der vorliegenden Bedienungsanleitung sind vertraulicher Natur, und die Informationen dürfen daher ohne Genehmigung der Herstellerfirma, die deren ausschließlicher Eigentümer ist, weder vollständig noch teilweise reproduziert oder an Dritte weitergegeben werden.

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El presente Manual de Uso sirve como referencia para una guía correcta y una rápida identificación de la máquina, y de todas sus piezas y versiones.

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|  |         |
|--|---------|
| <b>1. PREFACE</b>                                      | 30      |
| 1.1 INTRODUCTION                                       | 30      |
| 1.2 IMPORTANT  | 30      |
| 1.3 PRESERVATION                                       | 30      |
| <b>2. GENERAL INFORMATION</b>                          | 31      |
| 2.1 MANUFACTURER'S IDENTIFICATION                      | 31      |
| 2.2 APPLIANCE IDENTIFICATION                           | 31      |
| 2.3 TECHNICAL SERVICE                                  | 31      |
| 2.4 GENERAL SAFETY REGULATIONS                         | 32      |
| <b>3. PRELIMINARY INFORMATION</b>                      | 34      |
| 3.1 TECHNICAL DATA                                     | 34      |
| 3.2 FIELD OF USE                                       | 36      |
| <b>4. HANDLING AND UNPACKING</b>                       | 36      |
| 4.1 GENERAL WARNINGS                                   | 36      |
| 4.2 UNPACKING  | 36      |
| 4.3 HANDLING AND STORAGE                               | 36      |
| <b>5. INSTALLATION</b>                                 | 36      |
| 5.1 APPLIANCE DESCRIPTION                              | 36      |
| 5.2 POWER SUPPLY VOLTAGE                               | 38      |
| 5.3 APPLIANCE OVERHEATING PROTECTION SAFETY DEVICE     | 39      |
| 5.4 GENERAL INSTRUCTIONS FOR USE                       | 39      |
| 5.5 CONTROL PANEL                                      | 41      |
| 5.6 DEFINITIONS OF FUNCTIONS                           | 41      |
| <b>6. USING THE MACHINE</b>                            | 43      |
| 6.1 PREPARATION  | 43      |
| 6.2 OPERATION AND PROGRAMMING                          | 45      |
| <b>7. MAINTENANCE</b>                                  | 48      |
| 7.1 GENERAL WARNINGS                                   | 48      |
| 7.2 PROGRAMMED MAINTENANCE                             | 48      |
| 7.3 CARE AND CLEANING OF THE VACUUM PACKAGING MACHINES | 48      |
| 7.4 ROUTINE MAINTENANCE                                | 50      |
| 7.5 TROUBLESHOOTING                                    | 53      |
| <b>8. DISPOSAL OF THE MACHINE AND ITS PARTS</b>        | 54      |
| 8.1 DISPOSAL OF PNEUMATIC SPRINGS                      | 54      |
| <b>9. SPARE PARTS- GENERAL WARNINGS</b>                | 54      |
| <b>10. FROM THE MANUFACTURER</b>                       | 54      |
| <b>11. SPARE PARTS</b>                                 | 133-134 |

## 1. PREFACE

### 1.1 INTRODUCTION

This document has been prepared and checked carefully to provide reliable information;  
The manufacturer declines all responsibility, whether implicit or explicit, for eventual errors and omissions.

The descriptions and images in this Manual are not binding; the Manufacturer reserves the right to modify the documentation and technical features of the appliance at any moment and without any prior notice.

### 1.2 IMPORTANT

This document, prepared by ORVED S.r.l. , provides all the information necessary for use, preservation and disposal of the appliance.

In case of doubt, contact:

**ORVED Srl Soc. Unipersonale** - Via dell'Artigianato, 30 - 30024 MUSILE DI PIAVE (VE) ITALY  
Tel.: ++39 0421 54387 / Telefax: ++39 0421 333100  
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This document forms an integral part of the appliance and as such must be preserved throughout its life and use; if the appliance is passed on to third parties, this document must also be handed over to the new owner.



**Read this Manual entirely before carrying out any operation on the appliance.**

ORVED will provide all the clarification necessary for use, maintenance and preservation of your Appliance.



**The Buyer must make sure the operators concerned with use and maintenance of this appliance read this Manual entirely; it must always be readily available for consultation.**

It is the Buyer's responsibility to make sure, all amendments, updates or technical modifications communicated by the manufacturer are incorporated into the Manual.



**Follow all the recommendations and directives given in this Manual because safe operation and preservation of the appliance depend on the correct use and application of the suggestions given below.**

**The manufacturer declines all responsibility for damage to persons, objects and animals deriving from failure to observe the recommendations given in this Manual, the safety warnings, and modifications made on the appliance without authorization, tampering with the appliance and the use of non original spare parts.**

### 1.3 PRESERVATION

This document must be used without damaging the contents.

Do not remove, tear or rewrite any parts of the Manual; while consulting it, do not use, greasy or dirty hands to turn the pages to avoid affecting the quality and life of the Manual.

After use, put the Manual back in a safe protected place easily accessible to operators involved in appliance use and maintenance.

If the Manual is lost or stolen or damaged, request a copy by sending a copy of the purchase order to ORVED, specifying the version, edition, revision and the name of the appliance. This information is indicated on every page of the document.

Date of publication of this Use and Maintenance Manual: 11.2008.  
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Unauthorized use is forbidden.

The manufacturer reserves the right to make technical modifications at any moment without prior notice.

## 2. GENERAL INFORMATION

### 2.1 MANUFACTURER'S IDENTIFICATION

Head Office:

**ORVED Srl Soc. Unipersonale** - Via dell'Artigianato, 30 - 30024 MUSILE DI PIAVE (VE) ITALY

Tel.: ++39 0421 54387 / Telefax: ++39 0421 333100

E-mail: orved.ve@tin.it - Internet: www.orved.it

### 2.2 APPLIANCE IDENTIFICATION

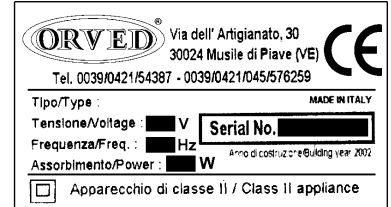
The appliance is identified by means of a rating plate (see image) applied on the back, which bears the following information:

#### General data:

- Manufacturer's Name and Address:  
Orved Srl - Via Dell'Artigianato, 30 - 30024 MUSILE DI PIAVE (VE)
- Model and CE marking

#### Technical features:

- Rated voltage, frequency and power



**WARNING:** It is absolutely forbidden to tamper with, engrave, alter, or remove the nameplate from the appliance. Do not cover it with adhesive tape or other such material as it must always be clearly visible.

**WARNING:** If the nameplate is found to be damaged for any reason whatsoever, (detached from the machine, damaged or only partly legible) notify the manufacturer immediately.

### 2.3 TECHNICAL SERVICE

#### 2.3.1 WARRANTY

All ORVED products are normally subjected to severe quality and functional checks before installation to ensure safety and in the interests of our Clients.

##### 2.3.1.1 COVER

All ORVED products are covered by a warranty for manufacturing and machining defects, and we undertake to replace parts found to be defective by the manufacturer free of charge.

##### 2.3.1.2 DURATION

ORVED products come with a twelve-month warranty from the date indicated on the purchase document.

##### 2.3.1.3 GENERAL CONDITIONS

According to the ORVED warranty:

- The warranty gives exclusive rights for free replacement of components acknowledged as defective by ORVED or our authorized representative.
- ORVED's responsibility is limited exclusively to replacing parts found to be defective; we shall not acknowledge claims for any other kind of damage.
- The Client is entirely responsible for returning disputed and/or defective parts to the ORVED office, and all transport charges for delivering the parts.
- Parts subject to normal wear are excluded from the warranty.
- Repairs, if any, do not in any manner lead to extension of the warranty.

##### 2.3.1.4 TERMINATION

Apart from the normal validity period, the warranty will immediately lapse in the following cases:

- Appliance nameplate tampered with, altered in any manner or removed without informing the manufacturer immediately.
- Modifications on the appliance or its parts without written authorization from the manufacturer. Tampering with the appliance or its parts, apart from invalidating the warranty, will free ORVED of all liability for all damage to persons, animals or objects.
- Failure to respect the indications in this Manual.
- Using the appliance for purpose other than that specified in this Manual.
- Damage or accident to the appliance deriving from outside factors.
- Conduction, repair and/or maintenance operations carried out by untrained personnel.

#### 2.3.2 NOTIFYING DEFECTS OR FAULTS

**WARNING:** Defects and faults must be notified to the area dealer or directly to the manufacturer.

#### 2.3.3 ORDERING SPARE PARTS

**WARNING:** Spare parts must be ordered from the area dealer or directly from the manufacturer, indicating the article code (See SPARE PARTS Chapter).

2.4 GENERAL SAFETY REGULATIONS

ORVED has analyzed the fundamental operations regarding use and maintenance for the design and construction of the appliance; the operating methods are studied and described in this Manual to allow safe operation.

**CAUTION:** Failure to observe these regulations can be extremely hazardous for safety of the appliance and persons.

2.4.1 SYMBOLS

Symbols and texts in different styles have been used in this Manual to highlight certain situations involving risk for the appliance or operator safety, particularly important regulations, recommendations, warnings and precautions to be taken during use and Maintenance. The personnel involved in the use and maintenance of the appliance must understand these symbols before carrying out any operation on it.

| SYMBOL | SIGNAL              | MEANING   |
|--------|---------------------|---|
|        | ELECTRIC HAZARD!    | Indicates <b>immediate danger</b> for the person's life and health. Failure to observe these warnings may lead to serious damage to health, or even mortal injury.  |
|        | DANGER!             | Indicates <b>probable danger</b> for the person's life and health. Failure to observe these warnings may lead to serious damage to health or even mortal injury.  |
|        | ATTENTION!          | Indicates <b>possible danger</b> . Failure to observe these warnings may lead to minor wounds and material damage.  |
|        | RISK OF BURNS       | Indicates <b>immediate danger</b> in case of contact with very hot surfaces.  |
|        | WARNING!            | Indicates a <b>possible damage situation</b> . Failure to observe these warnings may lead to material and environmental damage.   |
|        | IMPORTANT!          | Indicates <b>recommendations for use</b> and other useful <b>information</b> .  |
|        | INFORMATION SERVICE | The presence of this symbol alongside the text implies the <b>obligation to inform</b> the manufacturer of a particular situation or the possibility of requesting information regarding a certain topic. |

2.4.2 WARNINGS AND HAZARDS DERIVING FROM USE OF THE MACHINE

2.4.2.1 HAZARDS DERIVING FROM USE OF THE MACHINE

**DANGER!** The machines are designed and constructed according to the latest technology available and conform to applicable safety standards. In spite of this, they may be a source of hazard, especially if the safety instructions given in this Manual are not observed. Immediately eliminate all faults and problems that can affect safety!

2.4.2.2 MACHINE OPERATORS

**DANGER!** The machine must be used only by trained operators. Such operators must be familiar with the safety standards and operating instructions given in this Manual.

This appliance is not suitable for use by persons (including children) with reduced physical, sensory and mental capacities, or who are unskilled, unless they are supervised and trained regarding use of the appliance by a person responsible for their safety. Children must not be allowed to play with the appliance.

2.4.2.3 PROTECTIVE AND SAFETY DEVICES

**DANGER!** Before starting up the machine, check to ensure that all the safety and protective devices are present and in perfect working order.

2.4.2.4 ELECTRIC HAZARDS

**ELECTRIC HAZARD!**  
 - Only qualified personnel are permitted to work on the electric system and access live parts of the machine.  
 - Check the machine's electric system regularly.  
 - Remove and/or replace slackened connections or burnt wires immediately (replacement must be done exclusively by qualified personnel).  
 - Use only plugs and sockets suitable for the electrical features shown on the machine's nameplate.  
 - Do not insert objects in the machine's air vents: danger of electric shock!  
 - Do not use running water, water jets and/or steam in the machine installation area: danger of electric shock!

2.4.2.5 MACHINE MAINTENANCE, SERVICING AND REPAIR

**DANGER!**  
 - Remove the plug from the power socket before carrying out any operation.  
 - Carry out all machine maintenance and servicing operations punctually.  
 - Damage, if any, must be repaired exclusively by qualified personnel.

## 2.4.2.6 MODIFYING THE APPLIANCE



**DANGER!**

- Do not make any modifications or changes on the machine without the manufacturer's permission.
- Replace all deteriorated, worn or damaged parts immediately (replacement must be done by a qualified technician).
- Use only genuine spare parts.

## 2.4.2.7 FIRE PREVENTION



**DANGER!**

- Keep the air vents clear (distance from surrounding parts at least 10 cm).
- Do not place the machine near inflammable products.



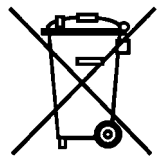
- DANGER! Danger of burns: if alcohol-based or inflammable products are used for disinfecting, air the area. Do not use naked flames near the machine! Do not smoke!**

## 2.4.2.8 CLEANING AND DISMANTLING THE MACHINE



**CAUTION!**

- Clean the machine regularly by following the instructions given in this Manual.
- Use and handle cleaning products according to the manufacturer's instructions.
- Scrapping and disposal of the machine, parts and products used for cleaning the machine must be done strictly in compliance with the applicable standards.



## 2.4.2.9 HAZARDS DERIVING FROM PNEUMATIC SPRINGS APPLIED ON THE PLEXIGLAS COVER



**DANGER!**

- Never open the pneumatic springs, as the pressure inside them is extremely high (about 180 bar).
- Before scrapping the machine, discharge the pneumatic springs. Request instructions for disposal.

## 2.4.2.10 HAZARDS DERIVING FROM USE OF GAS.



**DANGER!**

- Use only nitrogen  $N_2$  or carbondioxide  $CO_2$  or nitrogen+carbondioxide mixture  $N_2-CO_2$ .
- Detonation hazard! Do not use oxygen  $O_2$  or other explosive or inflammable gases.
- Observe the gas producer's instructions strictly for correct use of gas cylinders and gas pressure reducers!

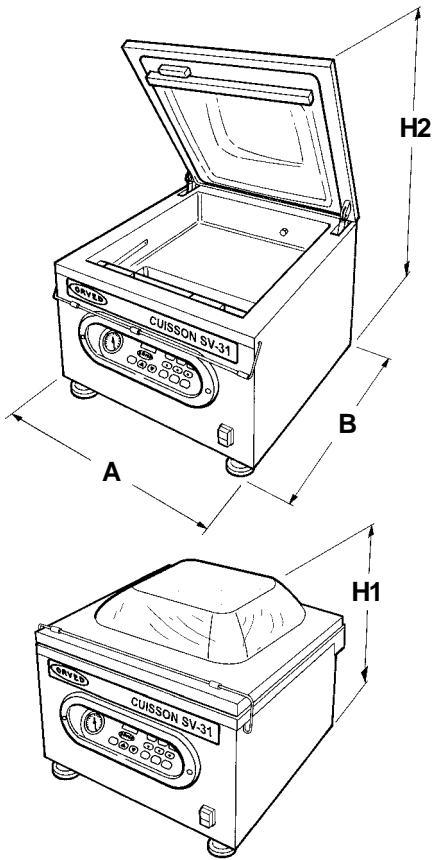
## 3. PRELIMINARY INFORMATION

## 3.1 TECHNICAL DATA

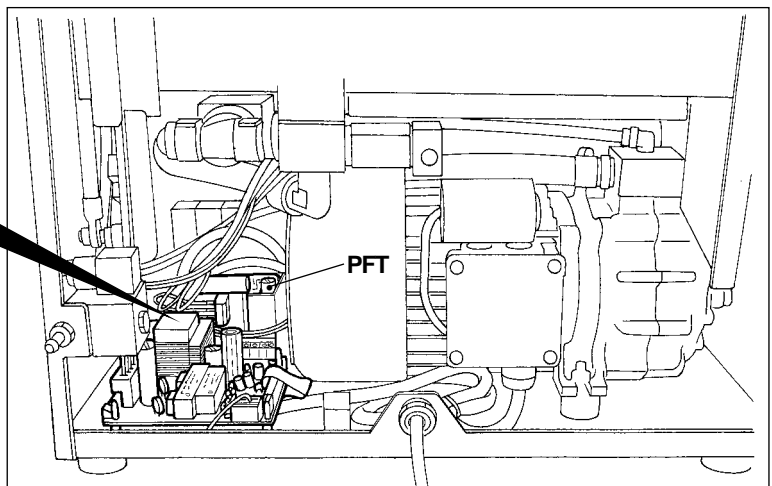
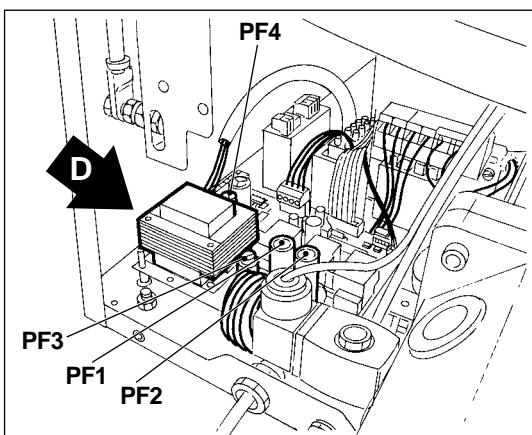
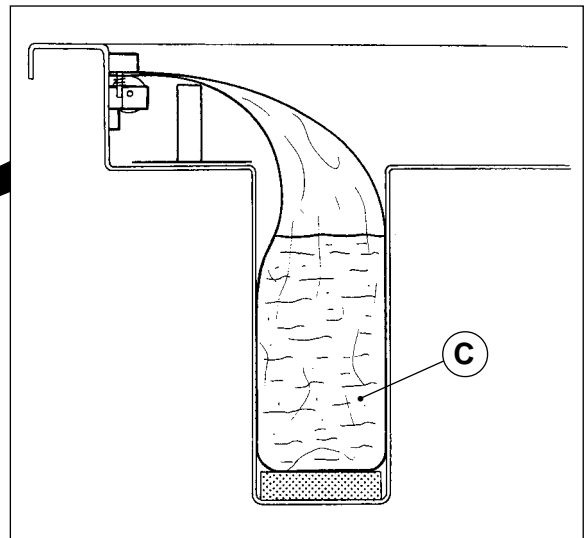
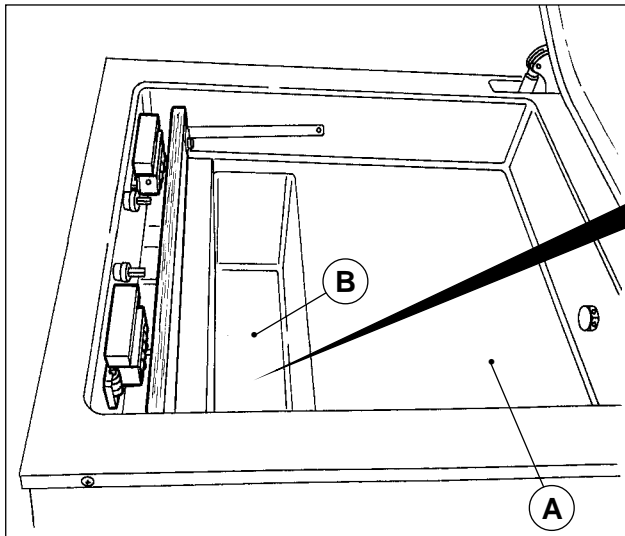
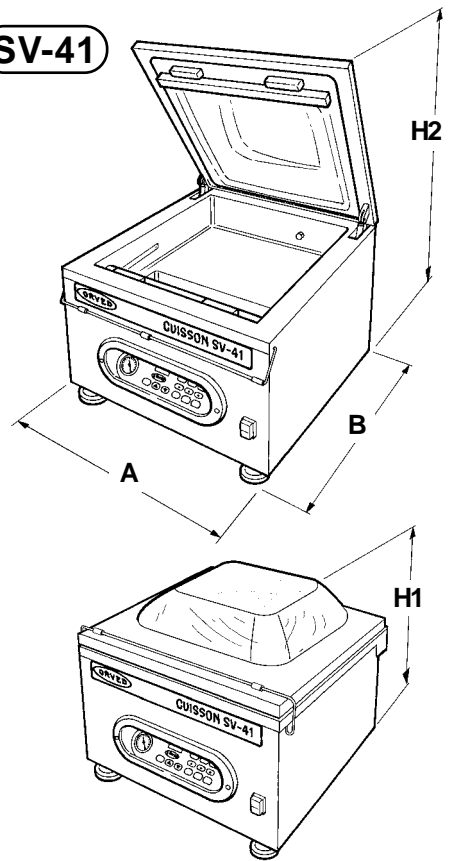
| DESCRIPTION   | SV-31  | SV-41  |
|---|--|--|
| WEIGHT (kg)   | KG 58,40   | KG 100,00  |
| DIMENSIONS (mm)   | A=440 mm<br>B=615 mm (PUMP INCLUDED)<br>H1=430 mm<br>H2=740 mm   | A=555<br>B=620<br>H1=455<br>H2=820   |
| POWER SUPPLY VOLTAGE (V)<br>FREQUENCY (Hz)  | Standard: 220-240 V/1Ph+N+PE/50-60Hz<br>Special: 110-120 V/1Ph+N+PE/60Hz<br>Special: 110-115V/1Ph+N+PE/60Hz  | Standard: 220-240V/1Ph+N+PE/50-60Hz<br>Special: 110-115V/1Ph+N+PE/60Hz   |
| VACUUM CHAMBER DIMENSIONS (mm)  | Horizontal compartment: 330x432xH100 (Rif. A)<br>Vertical compartment: 280x105x190 (Rif. B)  | Horizontal compartment: 435x500xH110 (Rif. A)<br>Vertical compartment: 385x105xH190 (Rif. B)   |
| LID   | Plexiglas – dome H60mm   | Plexiglas – dome H70mm   |
| LENGTH OF SERVICEABLE SEALING EDGE (mm)   | 310  | 415  |
| MAXIMUM BAG SIZE (mm)   | 300x450  | 400X550  |
| MAXIMUM LIQUID PRODUCT VOLUME<br>WHICH CAN BE PACKED IN THE VERTICAL<br>COMPARTMENT (DENSITY=1) (lt) (Ref. C) | 5  | 5  |
| PUMP FLOW (m³/h)  | 12 (14 a60Hz)  | 25   |
| FINAL PRESSURE (millibar)   | 2  | 0,5  |
| MAXIMUM ABSORBED POWER (VA)   | 750  | 1200   |
| PROTECTION FUSES (A)<br>230V MONOPHASE VERSION (Rif. D)   | Pump fuse (PF1): 8 delayed<br>Sealing fuse (PF2): 2,5 delayed<br>Power board fuse (PF3): 1<br>Power board fuse (PF4): 4<br>Dater safety timer (PFT): 3,15                                | Pump fuse (PF1): 10<br>Sealing fuse (PF2): 2.5<br>Power board fuse (PF3): 1<br>Power board fuse (PF4): 4<br>Dater safety timer (PFT): 3,15         |
| PROTECTION FUSES (A)<br>110V MONOPHASE VERSION (60Hz)   | Pump fuse (PF5): 16 delayed<br>Sealing fuse (PF2): 5<br>Power board fuse (PF3): 2<br>Power board fuse (PF4): 4<br>Dater safety timer (PF1): 3,15<br>Dater safety timer (PF2): 200mA Time | Pump fuse (PF5): 20 (ceramic)<br>Sealing fuse (PF2): 5<br>Power board fuse (PF3): 1<br>Power board fuse (PF4): 4<br>Dater safety timer (PFT): 3,15 |
| TYPE OF OIL PUMP OIL LOAD (lt.)   | SW40 0,30 Lt   | ORV60 (FDA certified – class ISO 68)   |
| ENVIRONMENT OPERATING CONDITIONS  | Temperature: 12-40°C<br>Humidity: 10-80%   | Temperature: 12-40°C<br>Humidity: 10-80%   |
| NOISE EMISSIONS (dB)  | 50Hz= 60 60Hz=62   | 50Hz= 60 60Hz=62   |
| FREQUENCY OF OIL CHANGE<br>(in work cycles)/hours   | 12500/100  | every 100 working hours  |
| CONTROLS  | Digital 10 programmes  | Digital 10 programmes  |
| STANDARD FEATURES   | Vacuum sensor<br>Gas injection system with 1 nozzles<br>1 daters for printing date / batch no.   | Vacuum sensor<br>Gas injection system with 2 nozzles<br>2 daters for printing date / batch no.   |
| OPTIONS   | Yars   |  |



SV-31



SV-41



### 3.2 FIELD OF USE

The Vacuum packaging machine is designed and constructed for creating vacuum in bags and rigid containers. The machine must not be used in other ways or for purposes other than that indicated by the manufacturer in this Manual. Conforming use of the machine also involves abiding by and understanding the warnings and notices in this instruction Manual, as well as prompt checking, maintenance and cleaning operations.

**! DANGER!** *The manufacturer declines all responsibility for damage to persons, animals and objects deriving from non conforming use of the machine.*

## 4. HANDLING AND UNPACKING

### 4.1 GENERAL WARNINGS

Pay attention to metal tips, nails, rivets, sharp edges and everything else that could be a potential source of risk on the packing. On receiving the machine, the Client must check to make sure it is intact, and inform the haulage contractor, or the transport personnel immediately of problems, missing parts or evident damage; this must be done before proceeding with other handling or unpacking operations.

**☎ WARNING:** *Damage, if any, on the packing may mean possible damage to the machine or its parts; in case of doubt regarding the actual condition of the machine following transport, contact the manufacturer for information, before carrying out any other operation.*

**📄 WARNING:** *The packed machine must be kept in a safe, dry place, covered and protected from environmental agents. The storage area temperature must be between 5°C and 40°C and the relative humidity not more than 80%.*

### 4.2 UNPACKING

After removing the packing, check to make sure the machine is intact; do not use it if in doubt and contact the dealer immediately. The packaging materials (plastic bags, etc.), must be kept out of the reach of children, and not dumped in the environment. Keep the packaging materials for future handling or storage of the machine.

**📄 WARNING:** *Disposal of the packing materials must be done in accordance with the Directives on the matter applicable in the country in which the machine is installed.*

### 4.3 HANDLING AND STORAGE

- In case of transport within the installation area, the machine must *always be kept in the horizontal position* to avoid oil leaks from the pump. The sealing bars and insertion plates must be fixed to prevent their shifting inside the vacuum chamber.

- In case of storage:

The machine must be stored in a safe place, suitable for the purpose, dry, ventilated, covered, and sheltered from atmospheric agents. The storage area temperature must be between 5°C and 40°C with a relative humidity value not higher than 80%. The installation area must be free of water and water vapour.

**📄** *If a machine has remained unused for long periods, change the pump oil before re-using it, by following the instructions given in the "MAINTENANCE" chapter.*

## 5. INSTALLATION

### 5.1 APPLIANCE DESCRIPTION

CUISSON domed vacuum packer machines are suitable for packing to pack both dry and/or seasoned products, as well as liquids, thanks to the shape and structure of the vacuum chamber which allows bags containing liquid products to be positioned vertically. Furthermore it can print the bag with the date and batch number. The appliance is equipped with digital controls with vacuum sensor control and has ten programmes which can be set by the user.

The machine is made up of the following main parts:

- a stainless steel compartment **(A)** (vacuum chamber or "cave"), equipped with a vertical compartment for packing bags containing liquids **(B)**, inside of which the vacuum is created and sealing of the bag is performed by a sealing bar **(C)**. The vacuum chamber is equipped with a transparent openable, Plexiglas lid **(D)**, through which the work phases can be observed. The internal depth of the horizontal and vertical compartments can be adjusted using special plastic shelves **(E)**. The compartment is also equipped with a device (dater) **(F)** for printing the date and batch number on the bags.
- a stainless steel body **(G)**. The control panel and power switch are located on the front of the body while the rear is closed by a stainless steel panel **(H)**. Pump oil can be topped up through the left-hand side panel **(I - SV-41)** and the rear of the machine **(SV-31 Fig. 1)**. The union for connecting the gas canisters is located on the rear of the unit (left-hand side) **(L - SV-41 Fig. 2)** and in the centre **(SV-31 Fig. 1)**;
- a high-performance, 25-m<sup>3</sup>/h vacuum pump **(M)** with recirculating oil and an inspection window **(N)** for checking the oil level.
- an air suction system made up of connectors, tubes and solenoid valves which connect the vacuum chamber to the pump and components which regulate and/or control the system;
- an electrical system including an electronic power board with fuse holders, control and connection board **(O)**. All functions are controlled by a microprocessor.

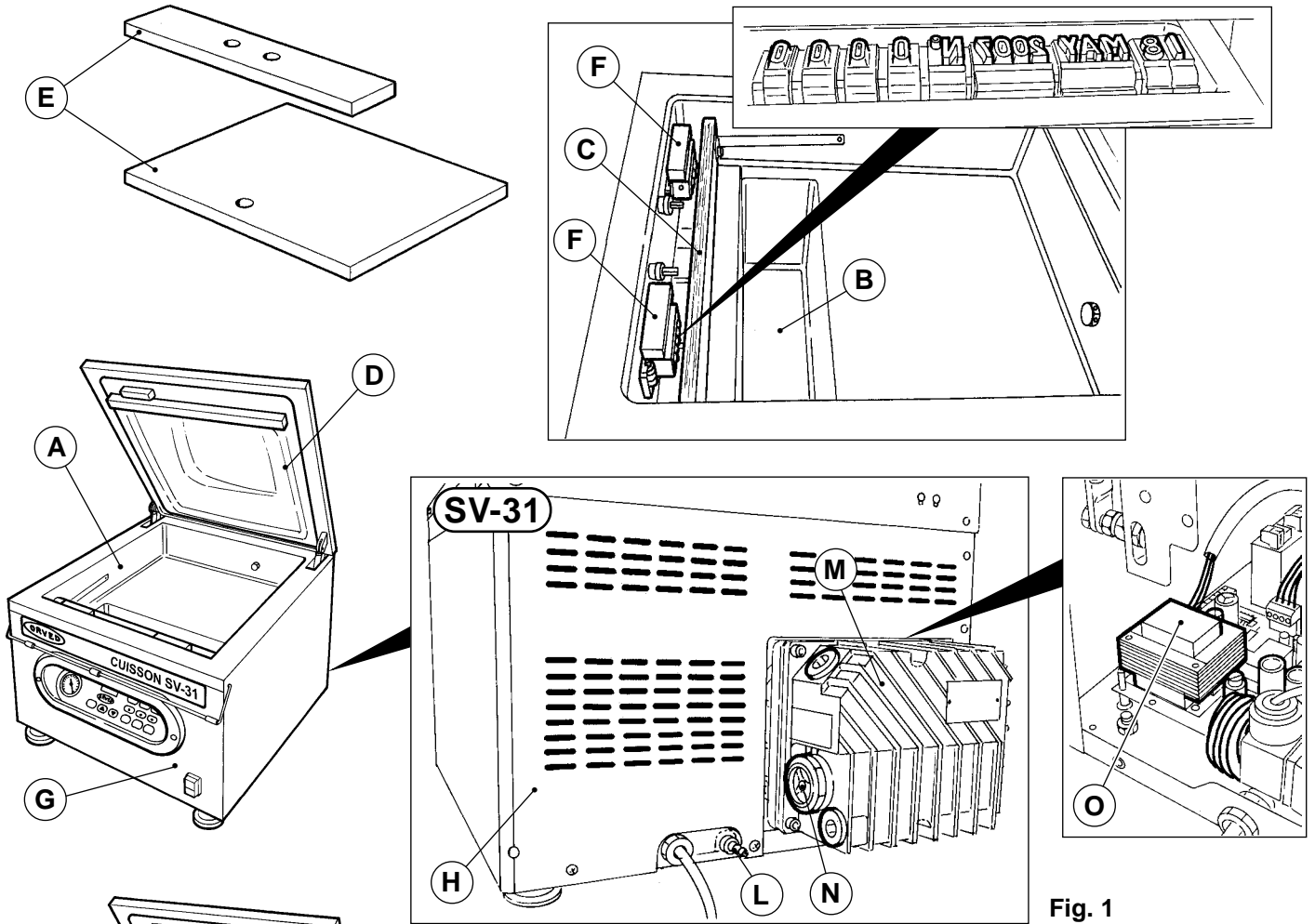


Fig. 1

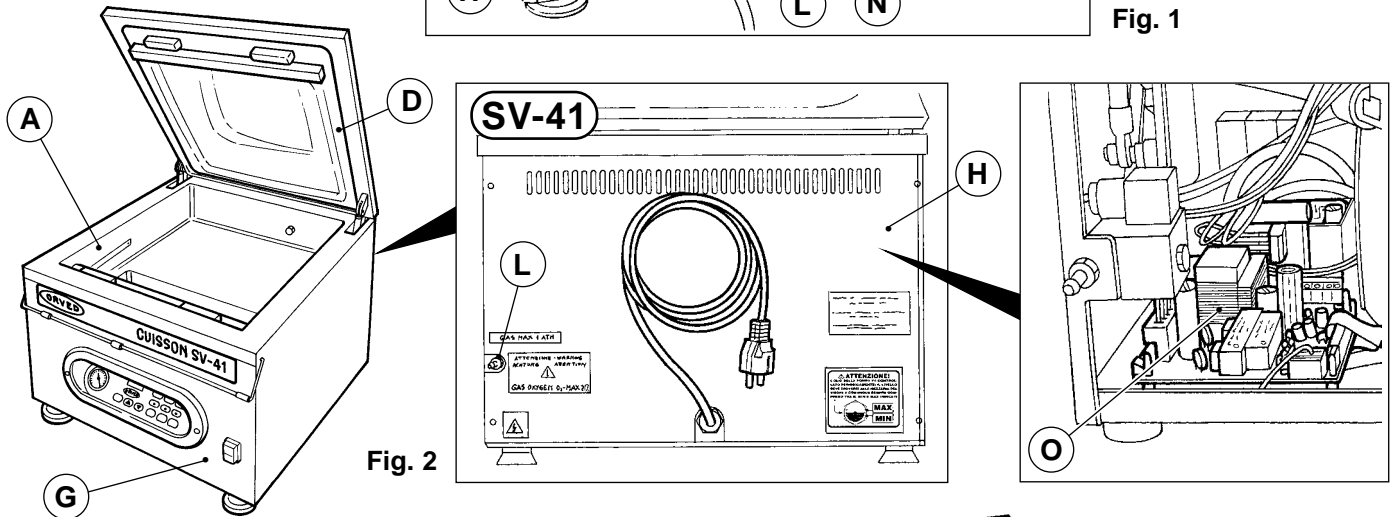
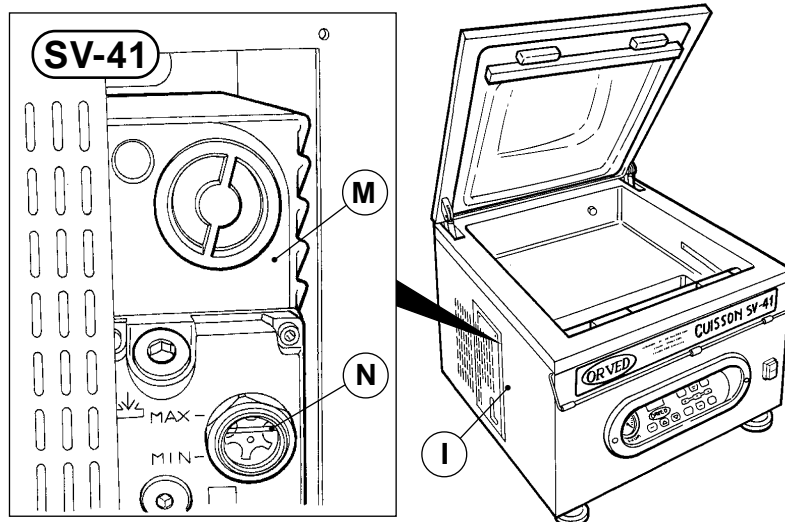


Fig. 2

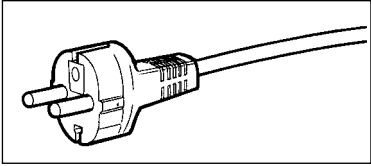


5.2 POWER SUPPLY VOLTAGE

5.2.1 230V SINGLE-PHASE POWER SUPPLY (STANDARD)

For connection to the power supply, the appliance is equipped with a standard large two-pin plug, 2P+T-10/16A. Insert the plug in compatible socket connected to the mains supply in the installation area.

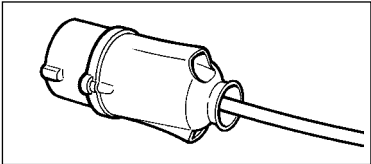
**ELECTRIC HAZARD!** Before making the connection, always check to make sure the electrical features of the system in the installation area are suitable.



5.2.2 400V THREE-PHASE SUPPLY VOLTAGE

For connection to the power supply, the appliance is equipped with a CEE 3P+T/16A plug. Insert the plug in a compatible socket connected to the mains supply of the installation area.

**ELECTRIC HAZARD!** Before making the connection, always check to make sure the electrical features of the system in the installation area are suitable and check the direction of pump rotation.



5.2.3 CHECKING THE DIRECTION OF PUMP ROTATION IN THE THREE-PHASE VERSION

Procedure:

- a) Check to make sure the voltage indicated on the machine nameplate corresponds to that of your mains supply (Fig. 1).
- b) Insert the plug in the socket with the machine Off.
- c) Check the oil level in the pump through the glass window provided on it (Fig. 2).  
If the level is insufficient, follow the instructions described in the "CHANGING THE PUMP OIL" Chapter.
- d) Regulate the 'VAC' function on the control panel to the maximum value of 99% (Fig. 3).
- e) Lift the plexiglas lid after lowering the lid holder (A).
- f) Switch the machine On by means of the main ON/OFF (B) switch provided on the front of the machine.
- g) Lower the lid to close it: the machine starts up automatically. With the pump rotating in the correct direction, the lid will remain lowered to create vacuum (or an underpressure) inside the chamber; otherwise, the lid will lift up since air is blown in as opposed to extracted from the chamber. In this case, switch the machine off immediately and have a specialist technician invert the power supply phases.

**Check the direction of pump rotation every time the three-phase socket is changed!**

**ELECTRIC HAZARD!** Only specialist technicians must be allowed to invert the power supply phases.

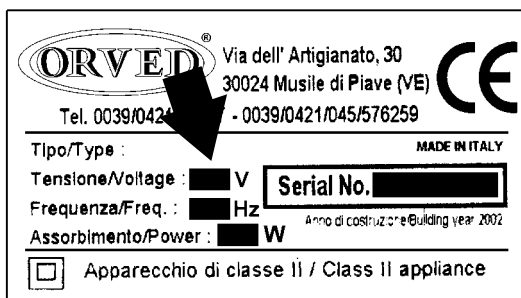


Fig. 1

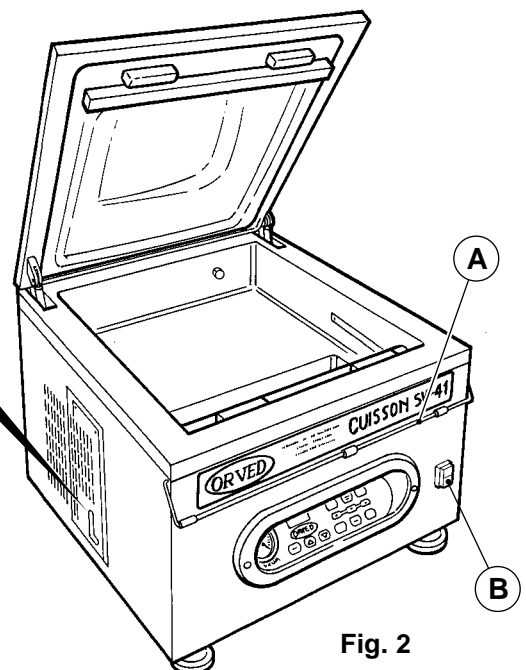
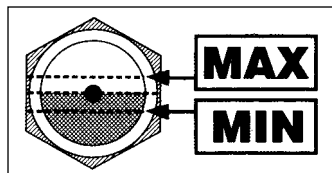


Fig. 2

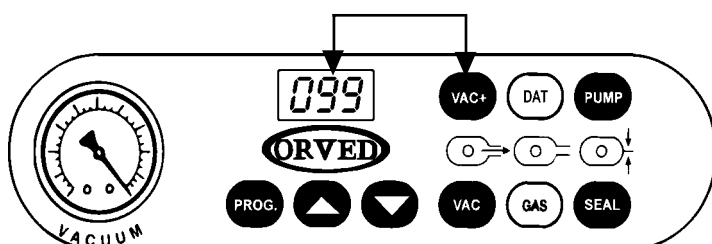


Fig. 3

## 5.3 APPLIANCE OVERHEATING PROTECTION SAFETY DEVICE

In accordance with updates of safety standards which came into force at the end of 2007, your vacuum packer is fitted with a double protection system which, thanks to special temperature sensors and relative control software, eliminates the risk of fire hazards caused by overheating of the sealing bar or the vacuum pump. This safety device is fitted as an addition to the presence of safety fuses, making this an avant-garde appliance in terms of protecting persons and things from the risk of fire hazards.

### THE FOLLOWING TWO CASES MAY OCCUR:

#### A – OVERHEATING OF THE SEALING BAR OR THE VACUUM PUMP

The appliance ends the set operating cycle but does not seal or the vacuum pump is not activated, depending on which of the two components is the subject of overheating. The vacuum chamber is not decompressed and consequently the lid remains closed for the entire duration of the period required for the overheated element to cool down. During this period the appliance is in “alarm status” which is indicated as follows:

the word flashes on the display

#### WHAT TO DO:

Once the cooling phase has been completed, the vacuum chamber is decompressed and it is possible to recommence operations.

#### B – CONTROL CIRCUIT FAULT:

When the appliance is turned on, or during functioning, if the system registers a fault in the safety control circuit the machine immediately goes into “alarm status”.

The operating cycle underway is concluded except for sealing or pump operation, the chamber is decompressed and the lid opens.

Should this occur switch off the appliance. If, when the appliance is switched back on, after a 10 – 15 minute wait, the control panel still indicates an alarm status, switch it back off, unplug it from the mains and contact an authorized technical assistance centre.

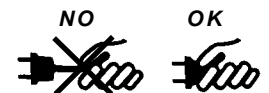
#### WHAT TO DO:

Should this occur switch off the appliance. If, when the appliance is switched back on, after a 10 - 15 minute wait, the control panel still indicates an alarm status, switch it back off, unplug it from the mains and contact an authorized technical assistance centre.

## 5.4 GENERAL INSTRUCTIONS FOR USE

**ELECTRIC HAZARD!** First check the voltage indicated on the nameplate to make sure it corresponds to that of your mains supply. **ELECTRICAL SAFETY OF THIS MACHINE IS ONLY ENSURED BY CONNECTING IT CORRECTLY TO AN EFFECTIVE EARTHING SYSTEM, AS ENVISAGED BY SAFETY STANDARDS. THE MANUFACTURER DECLINES ALL RESPONSIBILITY FOR DAMAGE CAUSED BY THE ABSENCE OF EARTHING OF THE ELECTRICAL SYSTEM.**

**ELECTRIC HAZARD!** Insert and disconnect the plug in the power socket always with the machine switched off; pull out the plug, not the cable.



Only qualified personnel are allowed to accede to powered parts.

**WARNING!** Position the machine on a solid, safe level horizontal work table.

**WARNING!** The appliance must be positioned in such a manner as to allow access from all sides. This will also ensure necessary ventilation of the machine. In any case, there must be a clearance of at least 10 cm around the machine.

**WARNING!** Anchoring the gas cylinders to the wall is recommended. After using the machine, and after switching it off, also close the cylinder valve and pressure reducer valve.

**DANGER!** IT IS FORBIDDEN TO USE GAS MIXTURES CONTAINING OXYGEN OR OTHER EXPLOSIVE GASES OR FUELS. The gas mixture must be factory-set at the manufacturer's or adjusted by authorized personnel in the place where the machine is used. Gas cylinder supply and installation must be handled by the supplier's qualified personnel.

**CAUTION!** When the vacuum parameters and the sealing time of the work cycle are set to maximum, at least 30 seconds must elapse between the end of one cycle and the beginning of the following one.

**CAUTION!** Stop the machine immediately if there is gas leakage caused by defective or rusty unions or damaged pipes.

Contact your nearest Service Centre for replacement of damaged parts.

**WARNING!** THE PUMP OIL MUST BE CHANGED PERIODICALLY; THE FREQUENCY OF OIL CHANGES INCREASES PROPORTIONALLY WITH THE WORK LOAD THE APPLIANCE IS SUBJECTED TO. THE OIL MUST BE CHANGED EVERY 20,000 FUNCTIONING CYCLES (EQUAL TO APPROXIMATELY 100 SERVICE HOURS SV-41) OR 12,500 CYCLES (SV-31). THE OIL FILTER (A - Fig. 1) MUST ALSO BE CHANGED EVERY TWO OIL CHANGES.

The frequency of oil and filter changes increases when liquid or damp products are dealt with on a regular basis. It is also important to change the oil if the appliance has not been used for a period of one month or more. If the oil appears whitish and cloudy or dark and transparent it means respectively, that the oil has been contaminated by liquids/ humidity or is old.

The control panel is equipped with a signalling system to indicate when an oil change is due: once the appliance has executed 20,000 work cycles (SV-41) or 12,500 cycles (SV-31) an 'oil alarm' signal will appear on the display at every start-up and at the end of each cycle. The number of cycles which have been executed can be called up on the display at any time using the buttons on the control panel (See pag. 41).

**CAUTION!** As the sealing bar reaches very high temperatures, avoid touching it after sealing bags. (Fig. 2).

**WARNING!** Do not remove the Teflon cover on the sealing bars; do not use knives or other sharp tools to remove residue from the sealing bar: always wait for the bars to cool down before using blunt tools.

**WARNING!** Clean the machine thoroughly after use; clean the Plexiglas lid using a damp cloth, never use detergents or solvents. Use any special product available on the market for cleaning the stainless steel parts. Do not use jets of water or steam as this can damage the machine's electrical equipment.

**WARNING!** When you wish to use only one of the daters, it is advisable to remove the one not in use by lifting it off its support; this will avoid unnecessary wear on the stamp (Fig. 3).

For all problems (defective working or technical assistance) please contact our Customer Service.

**WARNING!** To avoid increase in oil density which could affect regular working of the pump, make sure that the environmental temperature never falls below 12°C.

**WARNING!** The pump oil must be checked every time the machine is used through the level glass provided on the side of the machine's rear panel (Before each start up). The oil level must be between the MINIMUM and MAXIMUM level. The oil must be golden coloured and clear.

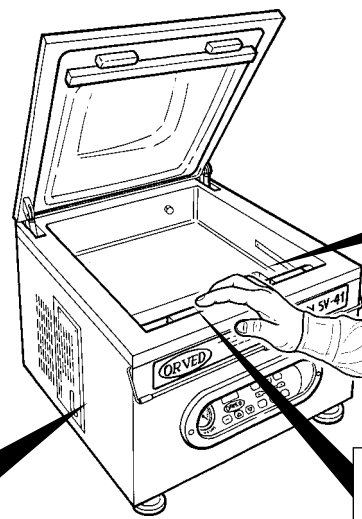
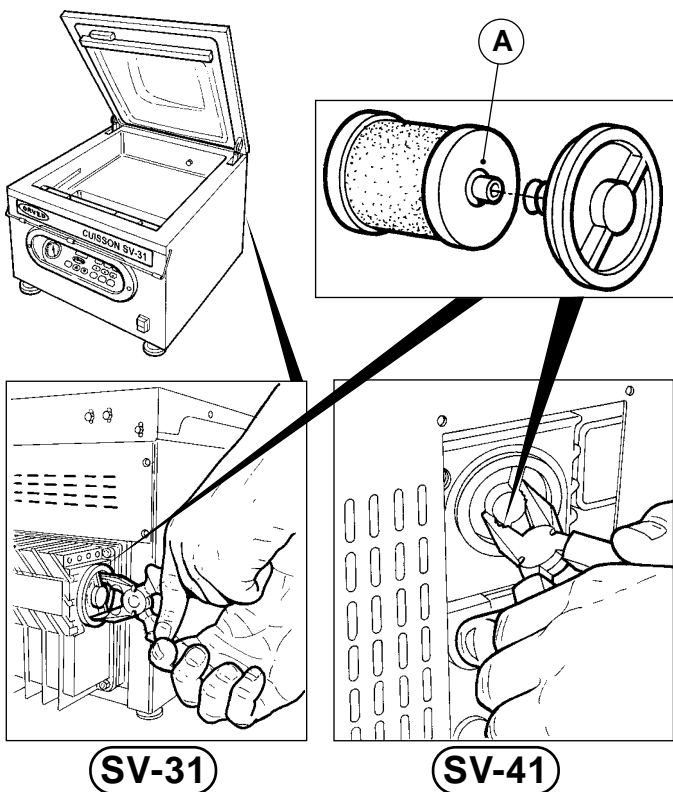
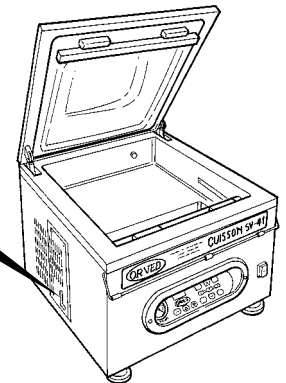


Fig. 2

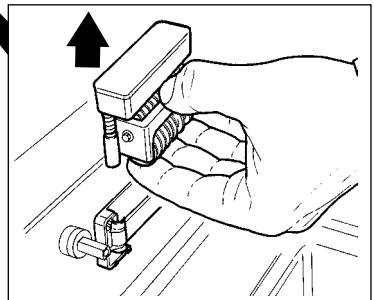
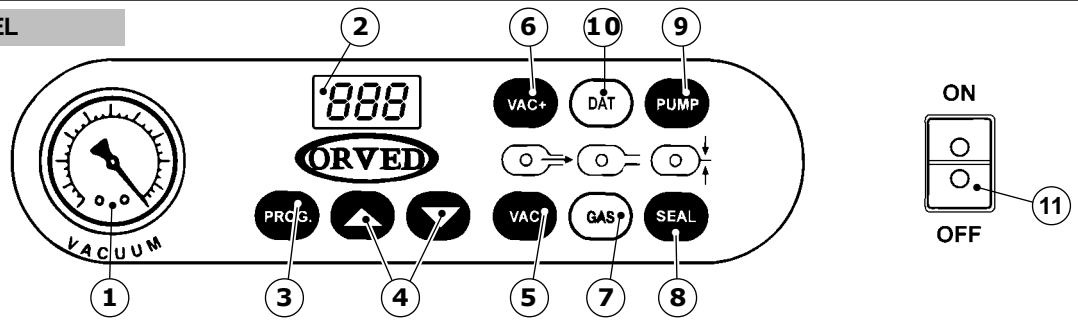


Fig. 3

SV-31

SV-41

## 5.5 CONTROL PANEL



- ① **VACUUM GAUGE:** Measures the level of vacuum in the vacuum chamber.
- ② **THREE-DIGIT DISPLAY:** 1st DIGIT TO THE LEFT: Indicates the program number entered.  
2nd AND 3rd DIGIT: Indicate the value relative to the function activated.
- ③ **PROG PROGRAMMING KEY:** When this key is pressed, the first digit on the left indicating the number of the program inserted flashes. When one of the functions, **VAC**, **VAC+**, **GAS** or **SEAL** is selected, the corresponding LED flashes: in this phase, it is possible to change the value by means of cursors
- ④ **CURSOR KEYS:** • Program selection.  
• Used for increasing/decreasing the value of the function selected, in the programming phase.
- ⑤ **VAC VACUUM FUNCTION KEY:** • Displays percentage vacuum value set (0 to 99%).  
• Allows programming of the function by means of
- ⑥ **VAC+ SUPPLEMENTARY VACUUM FUNCTION KEY:** • Displays supplementary vacuum value expressed in seconds (0 to 250 sec.) if **VAC** is programmed at 99%.  
• Allows programming of the function by means of
- ⑦ **GAS GAS FUNCTION KEY:** • Displays gas filling percentage value (0 to 99%).  
• Allows programming of the function by means of
- ⑧ **SEAL SEALING FUNCTION KEY:** • Displays the established sealing time in seconds (0 to 9.9 sec.).  
• Allows the active phase to be interrupted.  
• Allows programming of the function by means of
- ⑨ **PUMP START PUMP/JARS FUNCTION KEY:** Allows the start-up of pump functioning in continual mode.
- ⑩ **DAT DATER PROGRAMMING KEY:** Allows access to the dater programming function and displays the value.
- ⑪ **MAIN SWITCH.**



## 5.6 DEFINITIONS OF THE FUNCTIONS

### 5.6.1 VACUUM FUNCTION (VAC)

The appliance is equipped with a sensor which measures the level of vacuum created in the chamber: this value is expressed as a percentage. The maximum level which can be reached is 99%. The parameter is set using the **VAC** key. Once the maximum vacuum level has been reached, it is possible to add a supplementary vacuum time, expressed in seconds, using the **VAC+** key; this is useful for achieving the maximum vacuum possible, especially for extracting air from the heart of the product.

THE **VAC+** FUNCTION CAN ONLY BE ACTIVATED IF THE **VAC** PARAMETER HAS BEEN SET TO 99%.

#### Packaging liquid products.

Great care must be taken when packaging liquid products or products containing a high degree of humidity: in fact, as the percentage of vacuum increases, the boiling point of the liquid decreases.

When the boiling point has been reached, it is possible to observe bubbles beginning to form in the liquid.

If the resulting water vapour is aspirated by the pump, the life-expectancy of the pump itself is reduced.

**WARNING !** Set the pump running approximately 2 minutes before beginning to package liquid products; this function is activated by the **PUMP** key.

Increase the frequency of pump oil changes, following the instructions given in the 'MAINTENANCE' section.

In the event of liquid leaking from the bag, stop the work cycle immediately. The packaging of liquids must be executed by placing the bags in the special vertical compartment.

## 5.6.2 VAC+ FUNCTION VAC+

Once maximum vacuum has been obtained, a supplementary vacuum value (**VAC+**) can be set between 0 - 250 seconds; for normal applications, a (**VAC+**) value between 3 and 5 seconds provides a final pressure of approximately 2 mbar. For certain applications, where a vacuum approaching the absolute value is required, the (**VAC+**) function can be set between 15 and 30 seconds. For specific applications involving vacuum pack cooking, where air must be removed from the heart of the product, this value can be increased to up to 250 seconds.

## 5.6.3 GAS FUNCTION GAS

The **GAS** option is for packaging delicate products to prevent them from being crushed by the difference in pressure. To compensate for this difference in pressure, the air is substituted by a controlled mixture of antioxidant gases, usually made up of 30% carbon dioxide and 60% nitrogen. It also allows antioxidant gas mixtures to be used which help to prolong the shelf-life of the product. When choosing a gas mixture, consult the relative brochures issued by the best gas producing companies.

The maximum percentage of gas allowed is 60%. This percentage refers to the volume of the chamber occupied by the gas. If the value exceeds 60%, the pressure applied by the sealing bar (**C**) on the bag may not be sufficient and hence sealing could be imperfect. If the lid lifts during the cycle, reduce the gas injection time. The length of the bag must be such that the opening (**A**) can be inserted in the dater (**B**), so that the bag itself is held fast during the gas injection phase.

## 5.6.4 SEAL FUNCTION SEAL

Once the vacuum operation has been completed and any gas injection carried out, the appliance proceeds to seal the bag using the relative sealing bar (**C**) equipped with an electric resistance. Sealing times vary depending on the quality of the bags, room temperature and the quantity of work to be carried out. The seal line on the bag must always be uniform, distinct and without any melting. Set a sealing time which is suitable to the thickness of the bag between approximately 2 and 4 seconds.

## 5.6.5 DATE FUNCTION DAT

The appliance is equipped with two daters (**D**) for heat printing the date (**E**) and a 4-digit batch number (**F**) on the package. Printing times vary between 6 and 9 seconds depending on the thickness of the bag. The date and batch number are set manually by extracting the stamp holder (**G**) from the support (**H**).

## 5.6.6 PUMP / JARS FUNCTION PUMP

This function is used for preheating the pump before executing particularly demanding work, in order to improve performance and prolong the life-expectancy of the pump. Furthermore, this function can be used for carrying out packaging on the outside of the appliance (**Fig. 1**), using embossed bags with a length exceeding the maximum length specified for the dimensions of the vacuum chamber (JARS function).

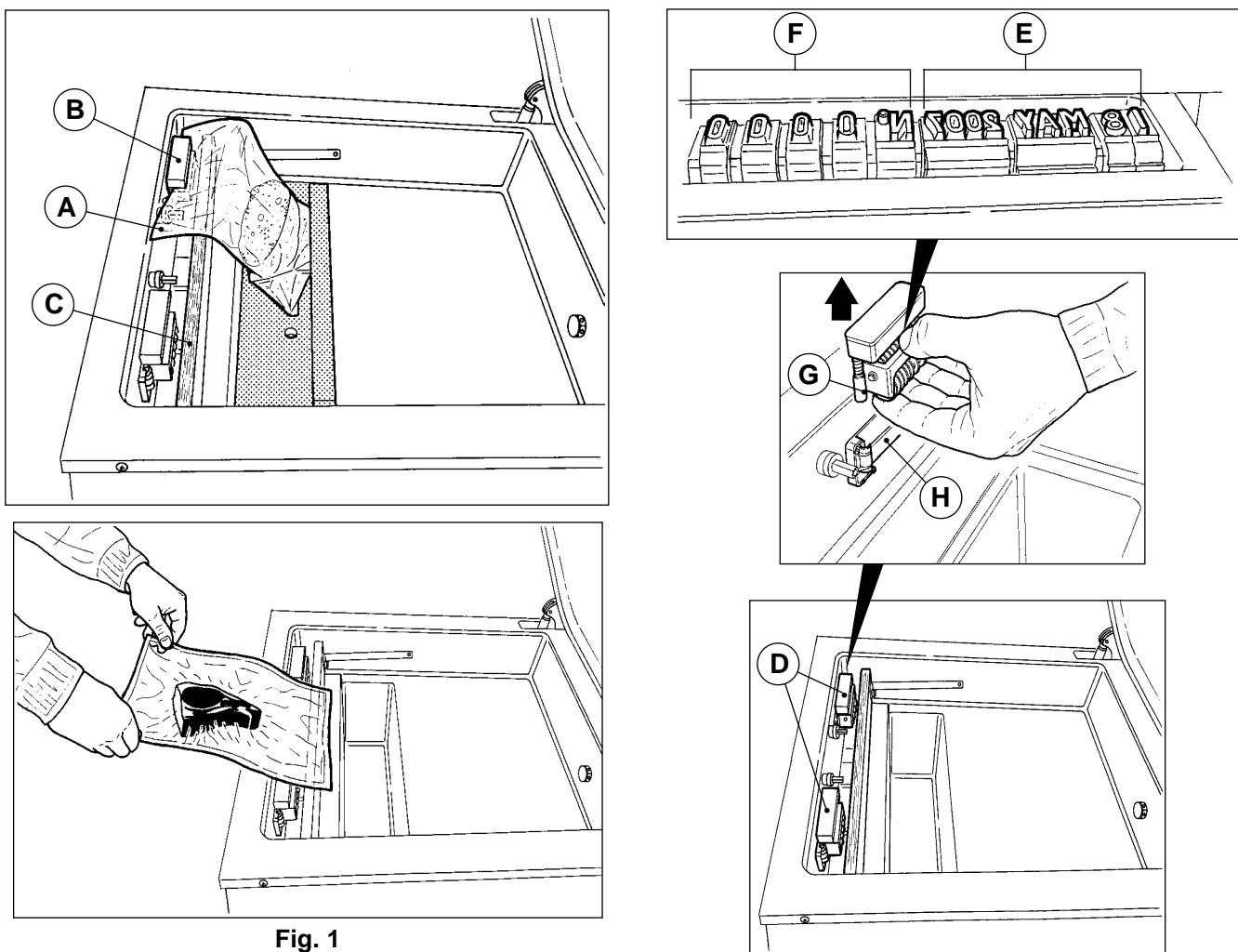


Fig. 1



### 6. USING THE MACHINE

#### 6.1 PREPARATION



**WARNING!** Maximum vacuum can only be achieved with dry, cold products and decreases if there is an increase in humidity in the product or in the vacuum chamber. Soft products may be damaged by the effects of compression applied by the bag on completion of the cycle. The bag format must be selected depending on the expected shelf-life of the product, its volume, and in the case of liquid products, its density.

#### PRELIMINARY CALIBRATION



When used for the first time, the vacuum sensor must be calibrated according to the atmospheric pressure (depending on the altitude of the place), as follows:

- Switch On the machine keeping the **PROG** key pressed simultaneously. The display shows **888**.
- Lower the lid (H) with both hands, pressing the corners slightly. The machine will start calibration which will end automatically after about two minutes with air returning to the chamber and consequent opening of the lid.



**WARNING!** The procedure must be repeated only if the machine is moved to a place at a different altitude.

#### 6.1.2. USING BAGS IN THE HORIZONTAL POSITION

- 1) Lower the lid securing device (A - Fig. 2): the cave's Plexiglas lid (B) opens.
- 2) Place all the shelves in the vertical compartment (C) and position the maximum number of shelves (D) that the chamber can hold in relation to the product to be packaged.
- 3) Select a bag which is suitable for the product to be packaged (the product must fill approximately 2/3 of the bag's serviceable volume). Place the bag containing the product to be packaged inside the vacuum chamber, ensuring it is lying over the sealing bar (E) and the dater stamp (F). If the GAS function is activated, ensure that the nozzle (G) is inside the bag. Two bags can be packaged simultaneously (Fig. 3) or one single bag at a time (Fig. 4), in this case, it is recommended to remove the dater which is not being used (Fig. 5).

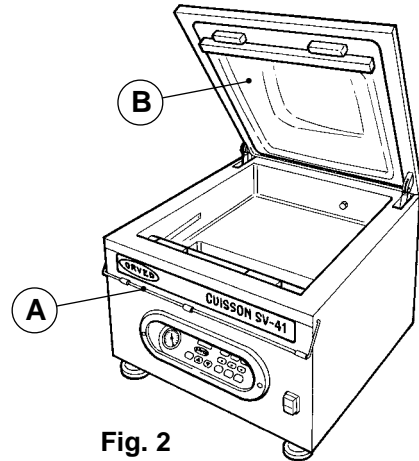


Fig. 2

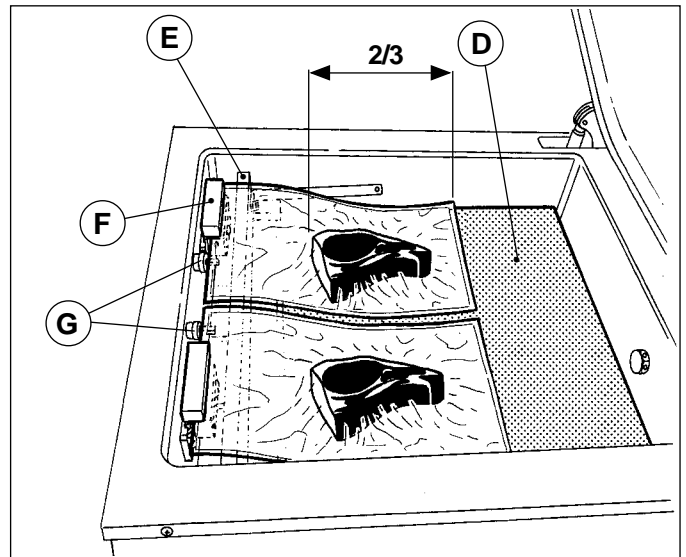


Fig. 3

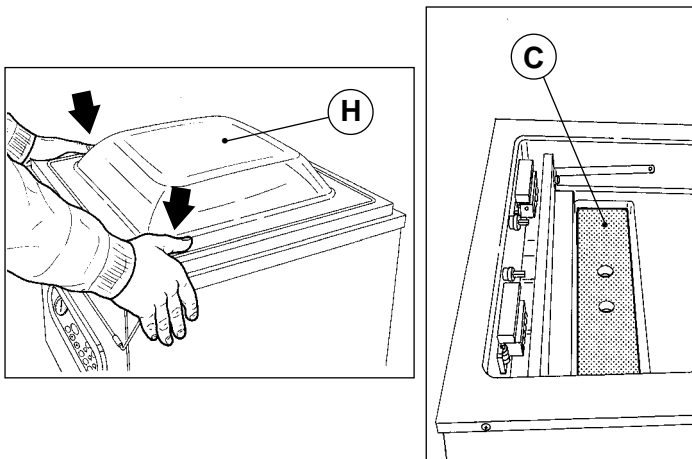


Fig. 5

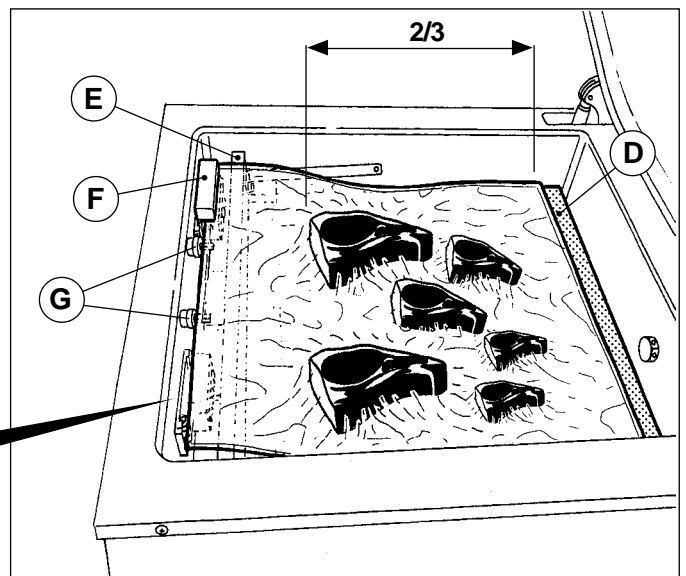
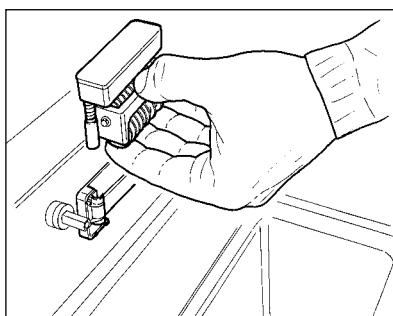


Fig. 4

## 6.1.3. USING BAGS IN THE VERTICAL POSITION

- 1) Lower the lid securing device (A- Fig.1): the dome's Plexiglas lid (B) opens.
- 2) Position the shelves (C) in the vertical compartment, depending on the volume occupied by the bag; the remaining shelves (D) can be placed in the horizontal compartment of the vacuum chamber.

## 3) Packaging of bags containing liquid products:

The vertical compartment can be used for packaging up to 5 litres of liquid product at a time: in this case the bag used must be wide enough to fill the entire width of the compartment. The level of the liquid product must not exceed  $\frac{3}{4}$  of the compartment's height (H). The remaining part of the bag must protrude from the compartment enough to ensure that the opening of the bag itself can be inserted in the dater (E). For smaller bags position the shelves (C) in such a way as to be able to insert the bag opening in the dater (E - Fig. 1).

It is possible to package one bag at a time (Fig. 1) or two bags simultaneously; or a single large-format bag (Fig. 2); in this case it is recommended to remove the dater which is not being used (F).

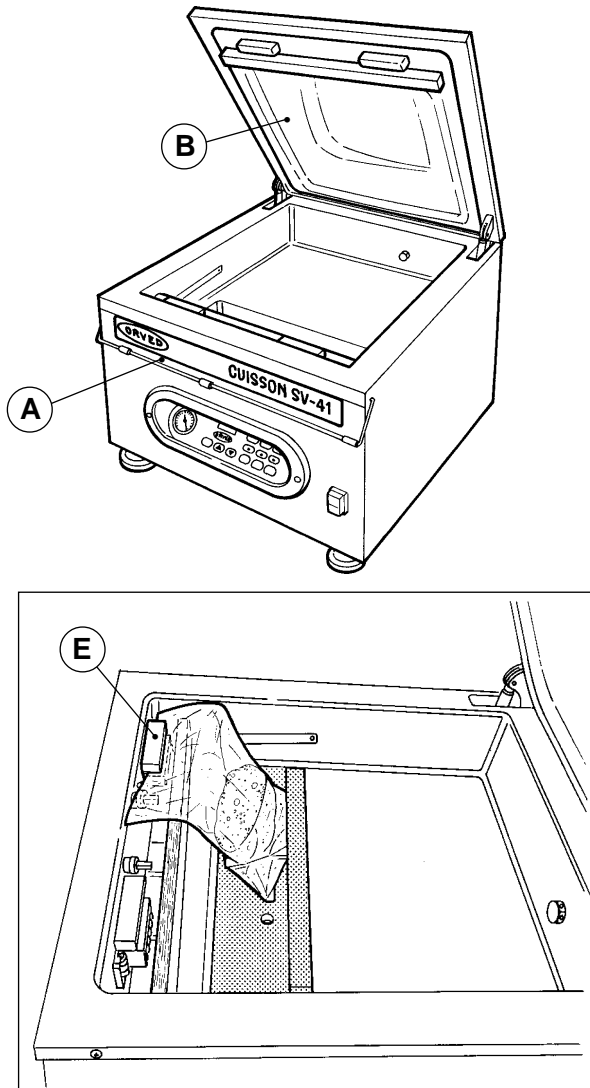


Fig. 1

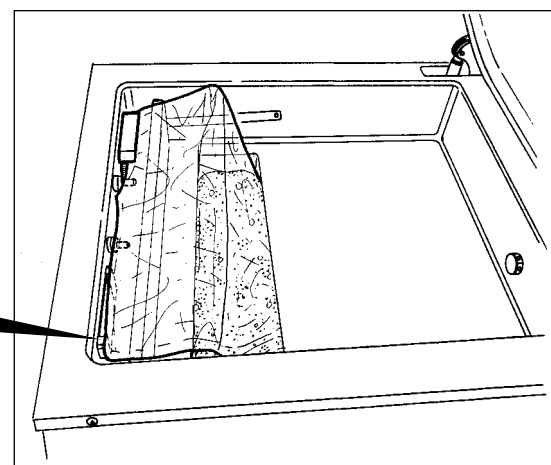
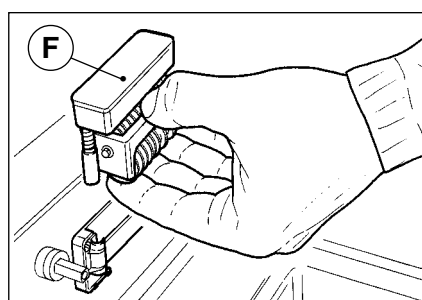
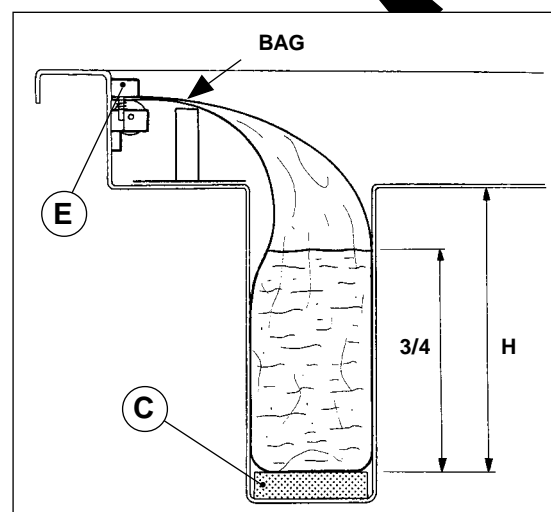
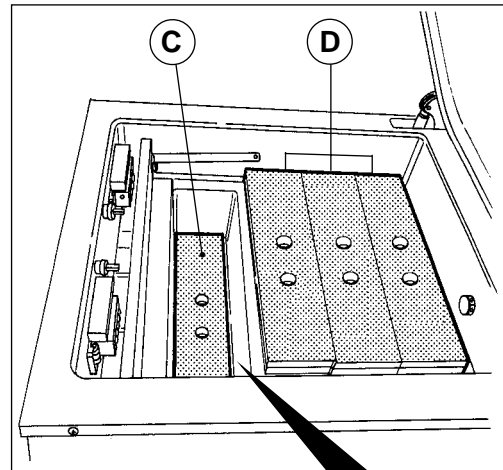


Fig. 2

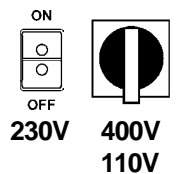
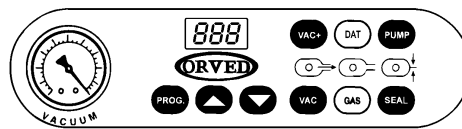
### OIL CHANGE ALARM AND WORK CYCLES DISPLAY

Once the appliance has completed the maximum limit of 20,000 cycles, on start-up and at the end of every work cycle, the words "ALL and OIL" flash alternately on the display to indicate that it is time to change the pump oil. Proceed with the oil change as indicated in the section "CHANGING THE PUMP OIL". The number of cycles already completed can be called up on the display by pressing in sequence the **PROG** and **PUMP** keys. The figure which appears must be multiplied by one hundred, e.g. the figure "048" indicates that  $48 \times 100 = 4800$  work cycles have been completed. To reset the value, once you have pressed in sequence the **PROG** and **PUMP** keys, press the two keys simultaneously.

## 6.2 OPERATION AND PROGRAMMING

**Caution:** the appliance is supplied with 3 basic programmes set by the manufacturer. The user must set the remaining programmes to meet his own personal operating requirements, depending on the type and quantity of product to be packed.

### PROGRAMMING THE VAC, GAS, SEAL AND DATE FUNCTIONS



#### 1 SWITCHING ON

Turn the **ON/OFF** main switch on the front of the machine to ON; the display shows the initials of the available options for three seconds; then the programme number is displayed by the first digit to the left.

#### 2 PROGRAM SELECTION

Select the programme (from 0 to 9) using the arrows . Scrolling through the programmes, the LEDs indicating the functions light up.

#### 3 SELECTING THE VAC FUNCTION (See pag.41)

Enter the program by pressing **PROG**; the digits on the display start flashing. Select the **VAC** function: the VAC function LED starts flashing. Set the required value using arrows and confirm by means of **PROG**, or proceed with the programming by pressing the key for the required function. To obtain maximum vacuum set the **VAC** value to "99".

#### 4 PROGRAMMING THE VAC+ FUNCTION (See pag.41)

Select the **VAC+** function; the relative LED starts flashing. Set the required value using arrows and confirm by pressing **PROG**, or proceed with the programming by pressing the required function key.

#### 5 PROGRAMMING THE GAS FUNCTION (See pag.41)

Select the **GAS** function; the relative LED starts flashing. Set the required value using arrows and confirm by pressing **PROG**, or proceed with the programming by pressing the required function key.

#### 6 PROGRAMMING THE SEAL FUNCTION (See pag.41)

Select the **SEAL** function; the relative LED starts flashing. Set the required value using arrows and confirm by pressing **PROG**, or proceed with the programming by pressing the required function key.

#### 7 PROGRAMMING THE DATE FUNCTION (DATER) (See pag.41)

Select the **DAT** function; the relative LED starts flashing. Set the required value using arrows and confirm by pressing **PROG**. It is now possible to proceed with setting other programs or proceed with the packaging.

- press **PROG**

or:

- wait for approx.10 seconds and the programme is automatically saved in the memory.

- 8 WORK CYCLE START-UP :** Lower the lid **using both hands** pressing it down lightly at the corners. The appliance will start the work cycle according to the set parameters.
- 9 WORK CYCLE END:** The appliance automatically ends the cycle after the sealing bar phase and re-entry of air in the chamber with consequent opening of the lid. Remove the packed product and check the seal; it must be uniform, well marked and without melted points. Adjust the preset values, if necessary, and proceed with the second cycle.

### INTERRUPTING THE WORK CYCLE

Activate the **SEAL** button; the work cycle can be interrupted at any moment; interruption is immediate with air re-entering the chamber. The work cycle can also be interrupted by means of the **ON/OFF main switch**: when the appliance is switched off, the cycle is interrupted but air does not return to the suction cup: the lid therefore remains closed.

When the appliance is switched on again, the cycle is reset, air returns to the chamber and the lid opens.

### ACTIVATING AND DEACTIVATING THE GAS FUNCTION

#### ACTIVATION

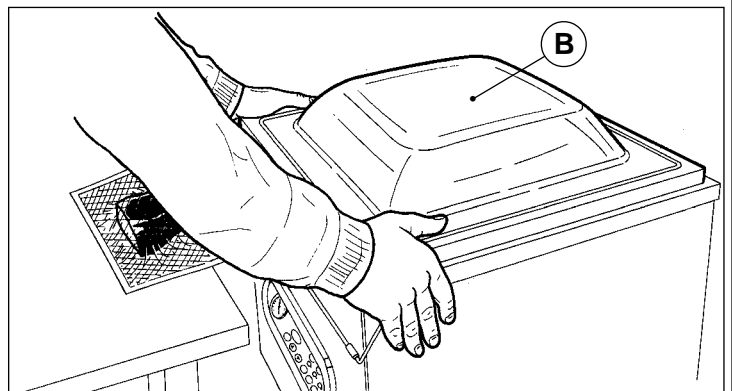
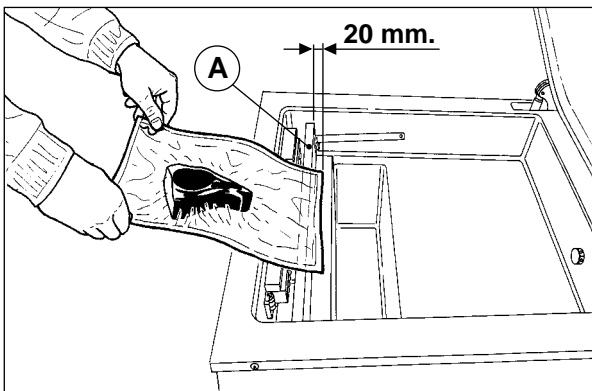
- Press the **PROG** key.
- Press the **GAS** key, the display flashes alternately with **"GAS"** or **"SI"**; a few seconds later, the value set is displayed.
- Change the value using the cursor keys and/or confirm by means of **PROG**; the LED remains On and the function is activated.

#### DEACTIVATION

- Press the **PROG** key.
- Press the **GAS** key, the set gas percentage appears on the display.
- Press the **GAS** key again; the words **"GAS"** and **"NO"** flash alternately on the display; a few seconds later, the LED and the function are deactivated.

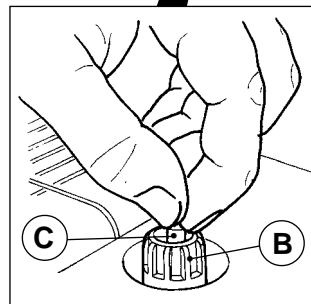
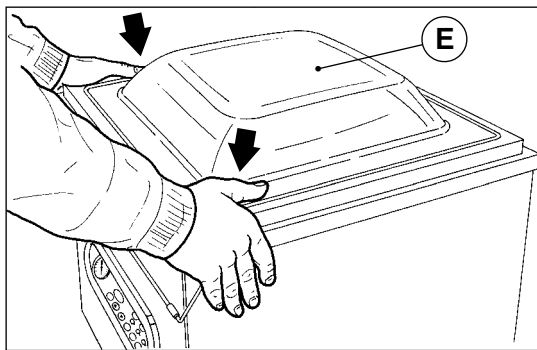
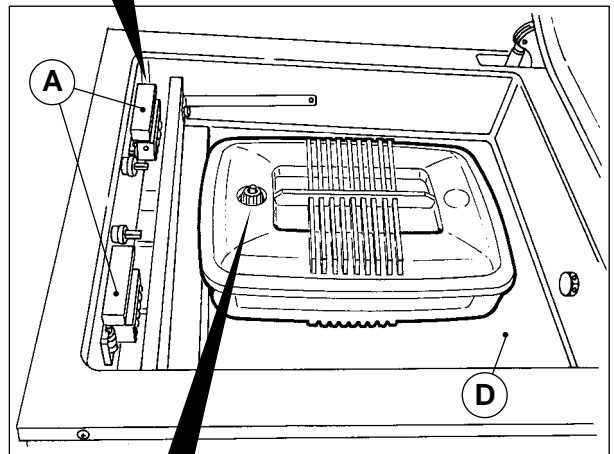
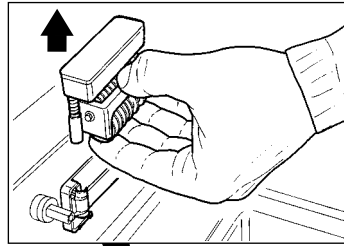
### PROGRAMMING THE "PUMP" FUNCTION FOR VACUUM PACKING EMBOSSED BAGS OUTSIDE THE VACUUM CHAMBER

- 1** Turn on the appliance and set the sealing value in accordance with the thickness of the bag to be used; deactivate the GAS function.
- 2** Press the **PUMP** key; the words **"JAR"** and **"SI"** flash alternately on the display. Position the bag about 20mm beyond sealing bar **(A)**, then start the cycle by lowering the lid **(B)**.
- 3** When vacuum formation has been completed inside the bag, press **SEAL**. The appliance will proceed to the bag sealing phase. The cycle ends when air returns to the chamber and the lid opens.



## VACUUM PACKING GOODS IN A RIGID CONTAINER (VACUUM BOX)

- 1 Switch on the appliance and zero the sealing time.
- 2 Deactivate the GAS function and remove both the dater stamp holders (A).
- 3 Prepare the lid of the container equipped with a valve by slightly unscrewing the valve sealing ring (B) so that the plug it contains (C) is mobile.
- 4 Position the shelves (D) to suit the dimensions of the container (vacuum box).
- 5 Programme the **VAC** functions and the **VAC+** functions if required.
- 6 **WORK CYCLE START-UP:**  
Lower the lid (E) using both hands, pressing it down lightly at the corners.  
The appliance will start the work cycle according to the set parameters.
- 7 **WORK CYCLE END:**  
The lid opens automatically when the cycle ends. Remove the container and quickly tighten the valve sealing ring (B) to stop air from entering the container.



### WARNINGS!

- **SELECT BAGS OF A FORMAT AND THICKNESS WHICH BEST SUIT THE SIZE, RIGIDITY AND ANGULARITY OF THE PRODUCT. WHEN USING THE VERTICAL COMPARTMENT, THE BAG MUST BE BIG ENOUGH TO ENSURE THAT THE OPENING CAN BE INSERTED IN THE DATER.**
- **WHEN THE GAS FUNCTION IS ACTIVATED, THE LENGTH OF THE BAG MUST BE SUFFICIENT TO ENSURE THAT THE OPENING CAN BE INSERTED IN THE DATER; THIS PREVENTS THE BAG FROM MOVING AWAY FROM THE SEALING BAR WHEN THE GAS IS INJECTED.**
- **CARRY OUT PRELIMINARY SETTINGS BEFORE STARTING THE APPLIANCE.**
- **WHEN VACUUM PACKING A RIGID CONTAINER PLACED IN THE VACUUM CHAMBER, ZERO THE SEALING TIME, DEACTIVATE THE GAS FUNCTION AND REMOVE THE DATER STAMP HOLDERS FROM THEIR SUPPORTS.**
- **THE WORK CYCLE CAN BE STOPPED AT ANY MOMENT BY PUSHING THE **SEAL** KEY.**
- **IF THE LID OPENS DURING THE GAS FLUSHING CYCLE, REDUCE THE GAS FLUSHING TIME.**
- **WHEN CARRYING OUT NUMEROUS SUCCESSIVE WORK CYCLES, REDUCE THE SEALING TIME TO AVOID THE APPEARANCE OF MELTING POINTS ALONG THE BAG'S SEALING LINE.**
- **FOR A CORRECT CHOICE OF THE GAS MIXTURE TO BE USED DEPENDING ON THE FOODS TO BE PRESERVED, REFER TO THE LEAFLETS DISTRIBUTED BY THE GAS PRODUCERS.**
- **USE OF GAS MIXTURES CONTAINING OXYGEN OR OTHER EXPLOSIVE GASES IS SEVERELY PROHIBITED.**
- **AVOID LIQUIDS FROM LEAKING OUT OF BAGS BY SELECTING A BAG FORMAT WHICH IS SUITABLE FOR THE VOLUME OF PRODUCT TO BE PACKAGED. THE HIGHER THE DENSITY OF THE PRODUCT (SAUCES, DRESSINGS ETC.), THE LOWER THE VOLUME WHICH CAN BE PACKAGED. (MAX. 5 LT FOR PRODUCTS WITH A DENSITY SIMILAR TO THAT OF WATER, MAX. 4 LT FOR SAUCES AND DRESSINGS).**
- **IF THE APPLIANCE OVERHEATS IT MAY ASSUME ALARM STATUS AS SHOWN BY THE FLASHING MESSAGE "ALL". FOLLOW THE STEPS ILLUSTRATED ON PARAGRAPH 5.3.**

7. MAINTENANCE

7.1 GENERAL WARNINGS

**ELECTRIC HAZARD!**  
Maintenance and/or repair operations on any of the appliance components must be done only after disconnecting the power supplies (Disconnecting the plug from the mains).

**CAUTION!**  
Only qualified personnel must be allowed to carry out maintenance operations or access powered parts of the machine.

**ELECTRIC HAZARD!**  
Disconnect the electric current before carrying out cleaning or maintenance.

For repairs, if necessary, contact a Service Centre authorized by the manufacturer. Use and demand genuine spare parts.

7.2 PROGRAMMED MAINTENANCE

| FREQUENCY   | MACHINE PART                            | ACTION   |
|---|---|--|
| Before each start up  | Pump                                    | Check the oil colour and level; top up the level, or change it completely if the colour is dark or whitish.  |
|   | Power cable                             | Check to make sure it is intact, replace if damaged (Contact a specialist Service Centre).                   |
|   | Plexiglas cover                         | Check to make sure it is intact; if cracks or streaks are present, contact Customer service for replacement. |
|   | Red silicone and Plexiglas cover gasket | Check to make sure they are inserted properly in their seats; replace if damaged.                            |
|   | Machine and vacuum chamber              | Clean to remove impurities, oil and grease.  |
| Weekly  | Sealing bar                             | Clean the upper part with a damp cloth.  |
|   | Pump                                    | Run the pump for about 30 minutes (using the Pump function) to allow removal of water from the pump oil.     |
| Every 12,500 operating cycles (approx. 50 hours for Mod. SV-31).<br>Every 20,000 operating cycles (approx. 100 hours for Mod. SV-41). | Pump                                    | Change the pump oil (call a specialist Service Centre).  |
| Every two oil changes   | Pump                                    | Change the pump exhaust filter (A) (call a specialist Service Centre).                                       |
| Every 6 months  | Pump                                    | Change the pump oil. (call a specialist Service Centre).   |

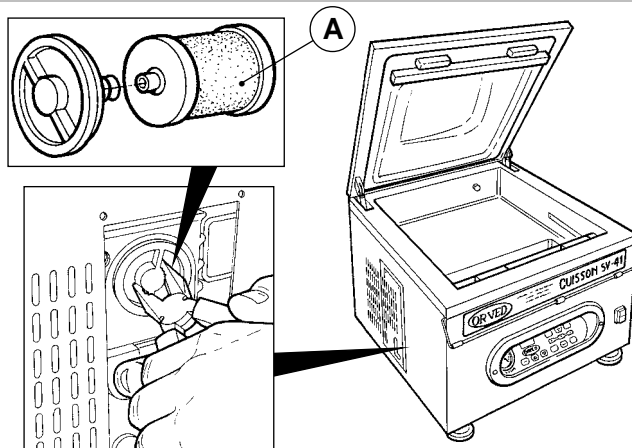
7.3 CARE AND CLEANING OF THE VACUUM PACKAGING MACHINE

**ELECTRIC HAZARD!**  
Danger of electric shock ! Remove the machine plug from the power socket. Do not use water or steam jets.

**DANGER!** Danger of burns: if alcohol-based or inflammable disinfectant products are used, ventilate the area. Do not use naked flames near the machine! Do not smoke!

**CAUTION!** Danger of injury! Use personal protective equipment. Do not use caustic products, acids or aggressive products such as muriatic acid. Read the instructions on the detergent product or disinfectant pack carefully.

**WARNINGS!** Use alcohol-based disinfectants. The machine must be cleaned and disinfected every time after use.



### 7.3.1 CLEANING THE PLEXIGLAS LID

- Wipe using a cloth made damp with water or a detergent specially meant for Plexiglas (maximum temperature 40°C).
- Do not use other types of detergents.
- Dry the lid thoroughly.

### 7.3.2 CLEANING THE SEALING BARS

**CAUTION!** Burning hazard! Do not start cleaning operations when the sealing bars are hot.

- Clean the upper part of the sealing bar using a damp cloth (water only).

### 7.3.3 CLEANING THE VACUUM CHAMBER

- 1) Switch the machine off by means of the ON/OFF main switch and disconnect the plug from the mains socket.
- 2) Lift the sealing bar by rotating it upwards (A - Fig. 1).
- 3) Extract the/two dater/s (B) to facilitate the following operations.
- 4) Take hold of the sealbag and pull it upwards (C - Fig. 2).
- 5) Insert the safety cap (D) in the central opening as shown in (Fig. 3).
- 6) Using a cloth soaked in detergent and/or a disinfectant solution, clean the bottom and sides of the vacuum chamber (Fig. 4); after cleaning, refit the parts by repeating the above operations in reverse order.

### 7.3.4 DISINFECTING THE MACHINE

- Switch the machine off by means of the ON/OFF main switch and disconnect the plug from the mains socket.
- Spray the machine's stainless steel surface with an alcohol-based disinfectant. Do not spray on the electrical parts or in the machine's air vents.
- Leave the disinfectant to act for a few minutes.
- Wipe with a cloth soaked in clean water, then dry thoroughly with a clean cloth.

### 7.3.5 CLEANING THE DATER CONTACTS.

- Remove the dater (E) from its seat on the appliance.
- Clean the lower part of the contact (F) using a cloth dampened with a little alcohol.

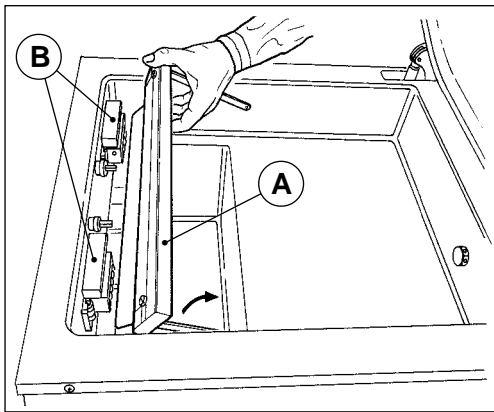


Fig. 1

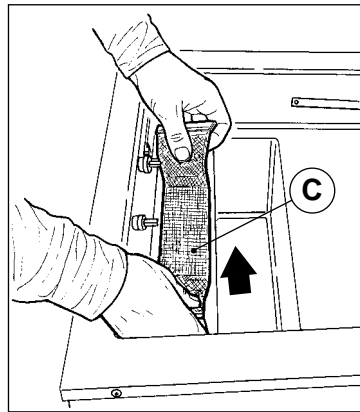


Fig. 2

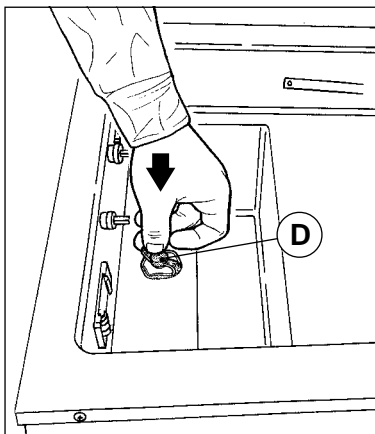
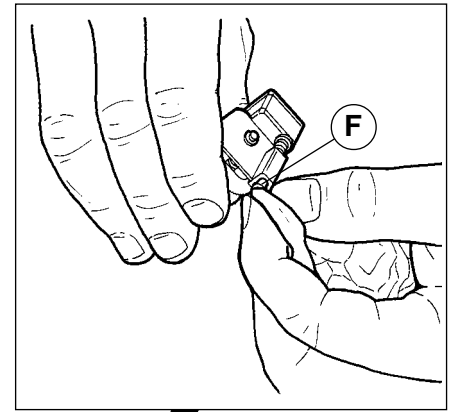


Fig. 3

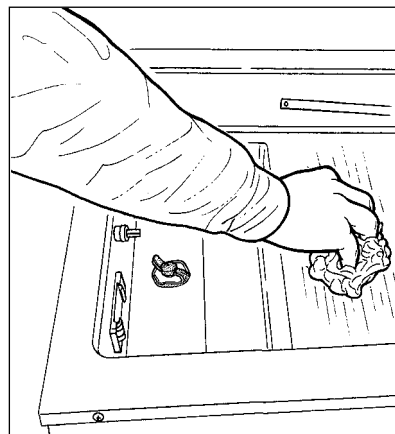
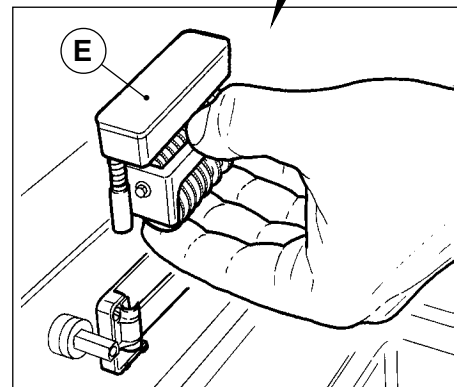


Fig. 4



## 7.4 ROUTINE MAINTENANCE

## 7.4.1 REPLACING THE SEALING BAR COVER TEFLON BAND

After a long period of use, a black mark starts appearing on the sealing bar cover Teflon band, so it must be replaced.

To do so, proceed as follows:

- 1) Switch the machine off by means of the ON/OFF main switch and disconnect the plug from the mains socket.
- 2) Lift the sealing bar by rotating it upwards (A - Fig. 1).
- 3) Detach the brown Teflon cover (Fig. 2).
- 4) Wipe the sealing bar with alcohol (Fig. 3).
- 5) Fit a new band (Fig. 4) cutting the excess length at the two ends (Fig. 5).

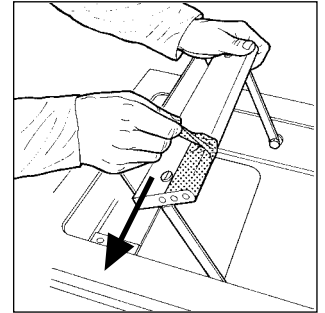
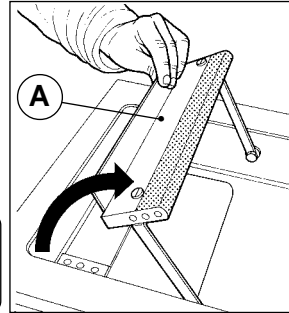
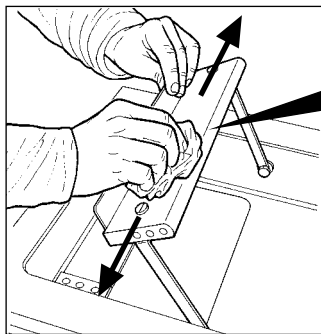


Fig. 1

Fig. 2

**CAUTION!**

**Burning hazard! Do not start Teflon band replacement when the sealing bars are hot.**



ALCOHOL

Fig. 3

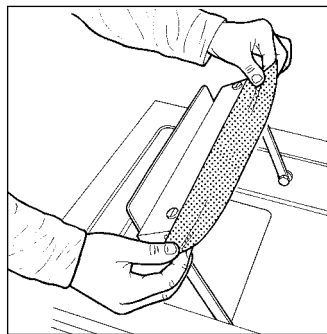


Fig. 4

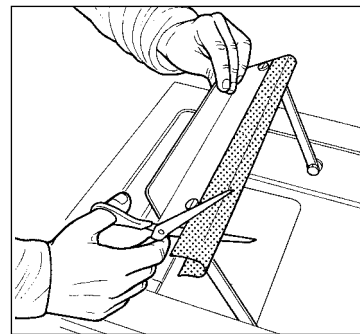


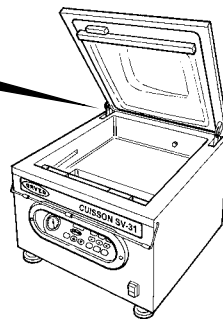
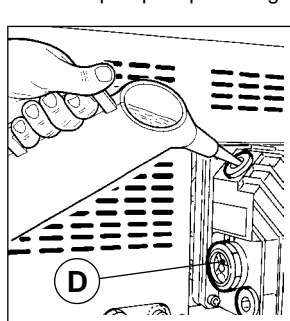
Fig. 5

## 7.4.2 CHANGING THE PUMP OIL

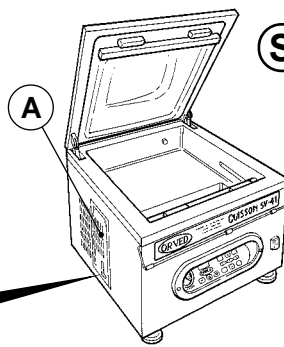
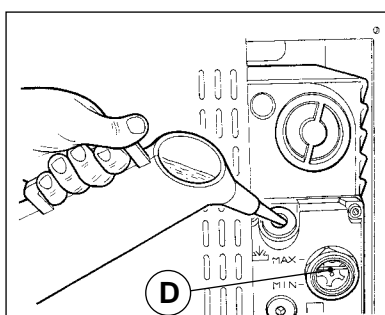
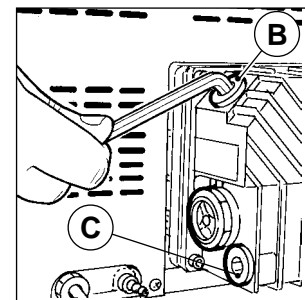
**WARNING: This operation must be carried out by qualified personnel.**

For correct oil change, disconnect the pump from the power supply. The pump must be at normal functioning temperature with the vacuum chamber at normal atmospheric pressure (no vacuum).

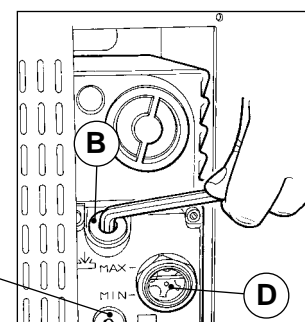
- 1) Run the pump for about 10 minutes so that the oil becomes fluid, by activating the (PUMP) function.
- 2) Stop the pump by pressing SEAL.
- 3) Switch off the machine using the ON/OFF main switch and remove the plug from the power socket.
- 4) Unscrew the oil filling screw as follows:
- 5) Remove the stainless steel side (A), then unscrew screw (B) using an Allen key;
- 6) Get hold of a suitable container for collecting the displaced oil approximately 0.3 liters (SV-31) and 1.2 liters (SV-41) and unscrew the drainage plug (C) located on the lower section of the pump. Allow the oil to drain out for approximately 10 minutes.
- 7) Refit the oil drainage plug (C) and top up with oil type ORV 40 for (SV-31) or ORV 60 for (SV-41) until it reaches a level which just exceeds the halfway point on the pump inspection glass (D).



SV-31



SV-41

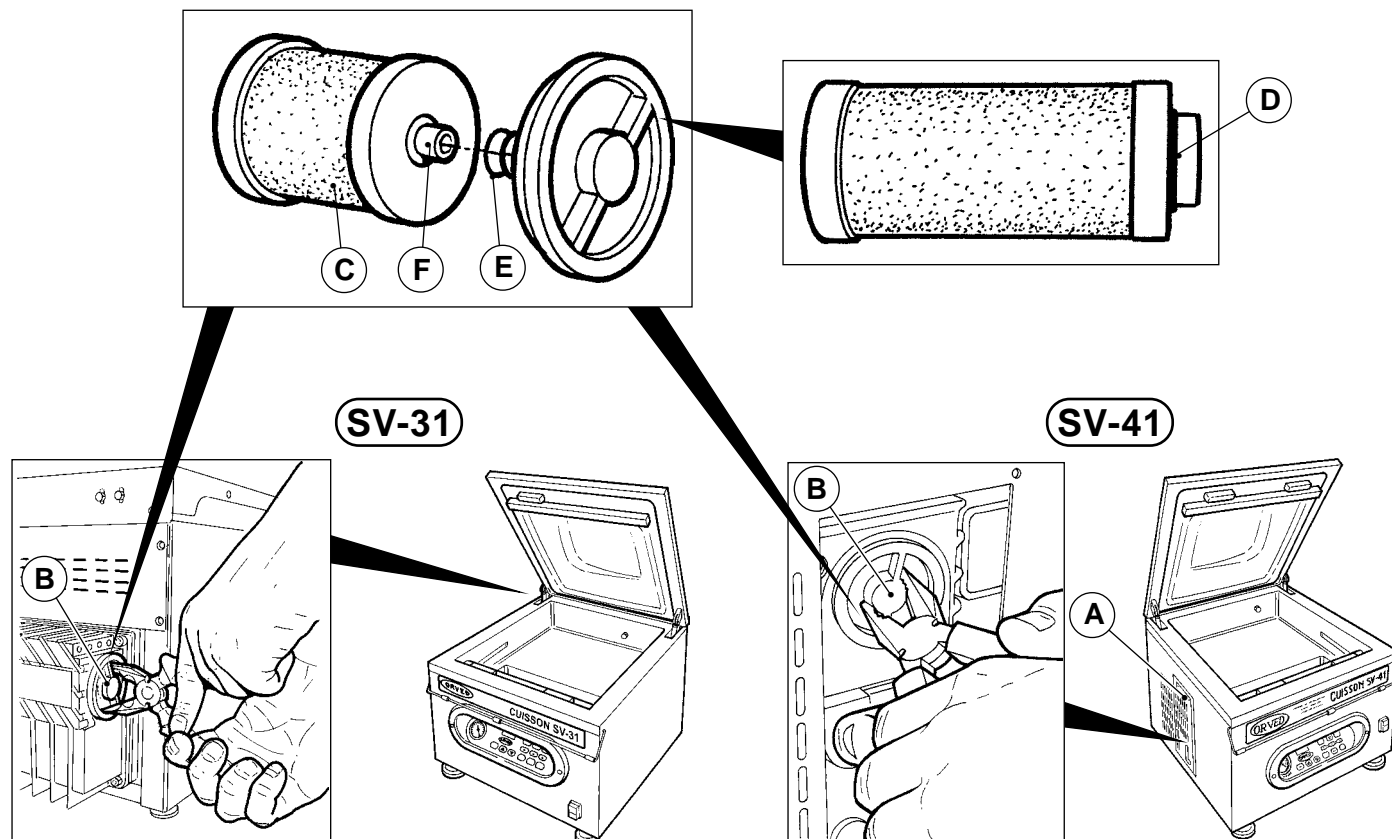




## 7.4.3 CHANGING THE PUMP OIL FILTER

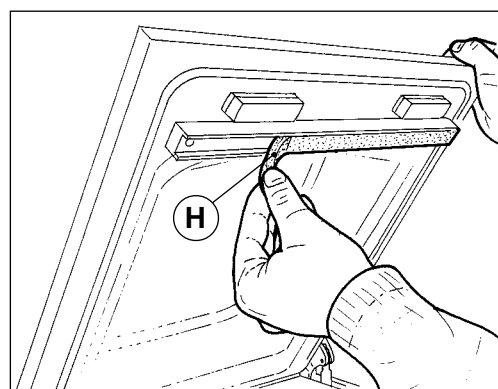
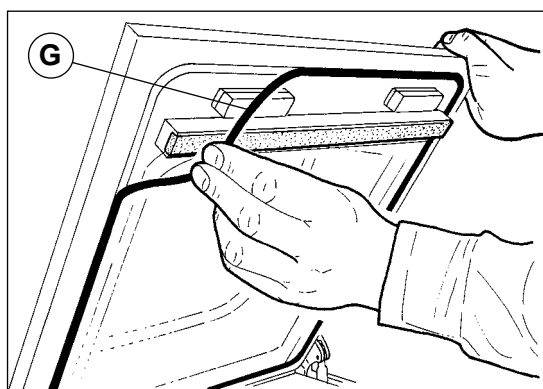
**WARNING:** This operation must be carried out by qualified personnel.

- 1) Remove the stainless steel side panel (A) from the appliance (SV-41).
- 2) Unscrew plug (B) on the pump body using pliers.
- 3) Remove the filter (C) from its seat.
- 4) Insert the new filter after checking to make sure the 'O-ring (D) is in the correct position.
- 5) Refit the cover by fixing spring (E) on the filter projection (F).



## 7.4.4 CHANGING THE LID GASKET AND RED SILICONE

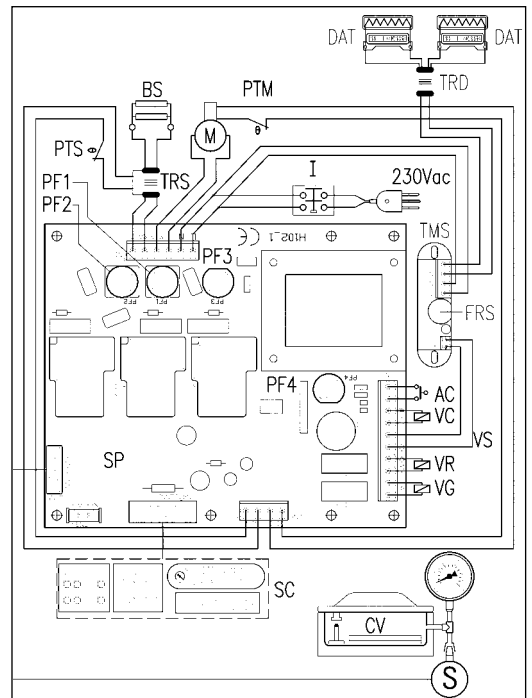
- 1) Open the plexiglas lid.
- 2) Remove lid gasket (G) or the red silicone strip (H) and clean the seats to remove any dirt.
- 3) Insert the new gasket pushing it firmly into the cavity.
- 4) Run a loadless cycle so that the gasket fits into its seat correctly.



7.4.5 WIRING DIAGRAMS

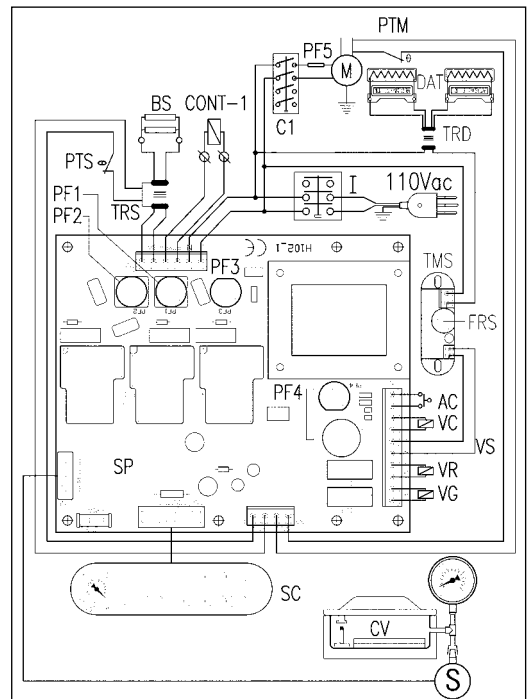
7.4.6.1 WIRING DIAGRAMS 230V

- TRS Sealing Transformer
- BS Sealing bar
- M Vacuum pump
- I Main switch
- PF1 Fuse holder with 2/6.3/8/10A vacuum pump fuse
- PF2 Fuse holder with 2.5-8/2.5-10A sealing fuse
- PF3 Fuse holder with 1A power board fuse
- PF4 Fuse holder with 4A power board fuse
- AC Machine work cycle start-up
- VC Sealbag valve
- VS Dater power supply impulse
- VR Vacuum chamber return air valve
- VG Optional gas function valve
- SC Digital control board
- SP Power board H 102\_1
- CV Vacuum chamber
- S Vacuum sensor
- PTM Pump motor thermal protector
- PTS Sealing Transformer thermal protector
- FRS Dater safety timer fuse
- TRD Dater power supply transformer 0-230-380/0-4.4V
- DAT Dater
- TMS Dater power supply safety timer



7.4.6.2 WIRING DIAGRAMS 110V

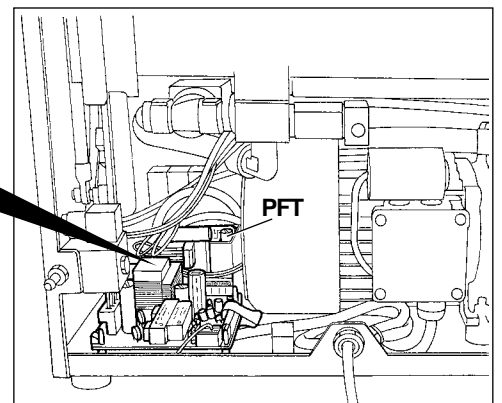
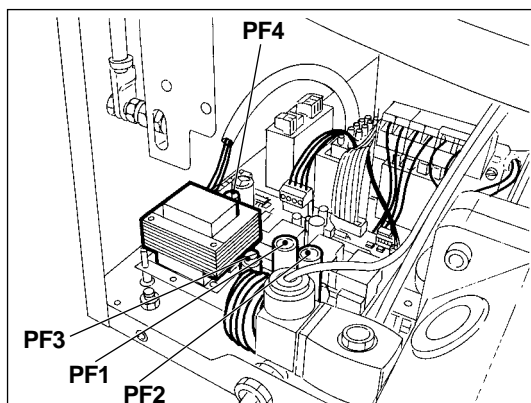
- TRS Sealing Transformer
- BS Sealing bar
- M Vacuum pump
- I Tripolar Main switch
- PF1 Fuse holder with 2/6.3/8/10A vacuum pump fuse
- PF2 Fuse holder with 2.5-8/2.5-10A sealing fuse
- PF3 Fuse holder with 1A power board fuse
- PF4 Fuse holder with 4A power board fuse
- AC Machine work cycle start-up
- VC Sealbag valve
- VS Dater power supply impulse
- VR Vacuum chamber return air valve
- VG Optional gas function valve
- SC Digital control board
- SP Power board H 102\_1
- CV Vacuum chamber
- S Vacuum sensor
- PTM Pump motor thermal protector
- PTS Sealing Transformer thermal protector
- FRS Dater safety timer fuse
- TRD Dater power supply transformer 0-110/0-4.4V
- DAT Dater
- TMS Dater power supply safety timer
- C1 Pump electromagnetic switch coil 110V (includes CONT-1)



7.4.6 REPLACING FUSES

**WARNING:** This operation must be performed only by qualified personnel.

- 1) Disconnect the plug from the mains socket.
- 2) Remove the rear panel and remove the fusebox capsule by rotating it anticlockwise through half a turn and replace the burnt fuse with a new fuse having identical features (See Technical Data Table page 34).



## 7.5 TROUBLESHOOTING

| PROBLEM  | POSSIBLE CAUSES  | SOLUTION  |
|--|--|---|
| <b>Machine not working.</b>  | <b>Machine Off.</b>  | Switch on the machine using the ON/OFF main switch.   |
|  | <b>No power supply.</b>  | Insert the plug in a socket (check the voltage!).<br>Check power cable to make sure it is intact.<br>Check fuses PF3 and PF4 on the power board to make sure they are intact and inserted correctly.                |
|  | <b>Machine damage.</b>   | Contact a Service centre.   |
| <b>The appliance terminates the programmed work cycle but without sealing the bag or without activating the vacuum pump.</b>   | <b>Vacuum pump or sealing transformer overheating.</b>                             | Wait approximately 15 or 20 minutes for the appliance to cool; at the end of this period the vacuum chamber will be depressurised and the work cycle can be resumed.  |
| <b>The appliance enters "alarm status" when it is powered on. The work cycle in progress is terminated without sealing the bag or without operation of the vacuum pump; the vacuum chamber is depressurised and the lid reopens.</b> | <b>Appliance overheating.</b>  | Switch off the appliance and then switch it on again after an interval of between 15 and 20 minutes.  |
|  | <b>Safety control circuit fault.</b>   | Contact an authorised service centre.   |
| <b>Insufficient vacuum in chamber.</b>   | <b>Set vacuum percentage is insufficient.</b>                                      | Increase the vacuum percentage up to 99%. Add supplementary vacuum using the VAC+ key.  |
|  | <b>Vacuum pump performance insufficient.</b>                                       | Check oil.<br>Check pump exhaust filter.  |
|  | <b>Cover gasket worn.</b>  | Replace cover gasket.   |
| <b>Machine does not create vacuum in chamber.</b>  | <b>Pressure exerted on Plexiglas cover during appliance start up insufficient.</b> | Lower cover with both hands, exerting more pressure.  |
|  | <b>Gas function activated.</b>   | Deactivate the gas function.  |
|  | <b>Pump not working.</b>   | Change pump fuse PF1 on the power board. (Contact a Service Centre.)  |
| <b>PLexiglas cover does not close.</b>   | <b>Cover gasket worn.</b>  | Change the gasket.  |
|  | <b>Hinges out of alignment.</b>  | Adjust the cover hinge. (contact a Service Centre).   |
| <b>Insufficient vacuum in bag/ bag does not maintain vacuum.</b>   | <b>Bag positioned incorrectly.</b>   | Position the bag centrally in relation to the sealing bar. Ensure the bag protrudes by 20 mm over the bar. Cycle with gas activated: fix the bag opening in the dater. Bag too small for the volume to be packaged. |
|  | <b>Bag perforated.</b>   | Choose a thicker bag and wrap the product with cling film or soft paper.  |
|  | <b>Sealing insufficient.</b>   | Increase the sealing time.  |
|  | <b>Bag defective.</b>  | Change the bag.   |
|  | <b>Dirty bag open.</b>   | Use a new bag and avoid smearing the opening with oil, grease, etc.   |
| <b>Bag too big or too small in relation to product size.</b>   | Choose a bag size suitable for product dimensions.                                 |   |
| <b>Seal seam shows burns and bubbles.</b>  | <b>Sealing time too long.</b>  | Decrease the sealing time.  |
| <b>Narrow irregular sealseam.</b>  | <b>Sealing time too short.</b>   | Increase the sealing time.  |
| <b>The machine does not seal.</b>  | <b>Sealing bar connection dirty.</b>   | clean the contacts with contact-spray.  |
|  | <b>Sealing Bar wire broken.</b>  | Change wire (Contact a Service Centre).   |
|  | <b>Gas quantity more than 60%.</b>   | Reduce gas percentage.  |
|  | <b>Sealing bar fuse blown.</b>   | Change PF2 fuse on power board.   |
|  | <b>Seal bag perforated.</b>  | Change seal bag.  |

| PROBLEM                                   | POSSIBLE CAUSES  | SOLUTION  |
|---|--|---|
| <i>Date and numbering are illegible</i>   | <i>Timer fuse cut out.</i>                             | <i>Replace the timer fuse. (PFT - pag. 52)</i>                        |
|   | <i>Insufficient printing time.</i>                     | <i>Increase the printing time using the PROG and DAT keys.</i>        |
|   | <i>Dirty contact.</i>                                  | <i>Clean the contacts and the guide pins (SEE FIG PAG. 49).</i>       |
| <i>Poor sealing.</i>                      | <i>Sealing bar dirty.</i>                              | <i>Clean sealing bar.</i>   |
|   | <i>Sealing time insufficient for bag basic weight.</i> | <i>Increase sealing time using</i>                                    |
|   | <i>Teflon cover worn.</i>                              | <i>Change Teflon cover.</i>   |
|   | <i>Red silicone worn.</i>                              | <i>Change red silicone.</i>   |
| <i>Gas quantity in bags insufficient.</i> | <i>Gas flushing time insufficient.</i>                 | <i>Increase gas percentage</i>  |
|   | <i>Gas cylinder pressure insufficient.</i>             | <i>Adjust pressure on cylinder reducer to 1 bar.</i>                  |
|   | <i>Gas nozzle not inserted in bag mouth.</i>           | <i>Reposition bag by inserting gas nozzle in the bag opening.</i>     |
|   | <i>Cylinder valve or pressure reducer closed.</i>      | <i>Open cylinder valves and adjust pressure reducer to 1.0 bar.</i>   |
| <i>Lid opens during GAS cycle.</i>        | <i>Gas percentage too high.</i>                        | <i>Reduce gas percentage</i>  |
| <i>Vacuum not created in containers.</i>  | <i>Cover not placed correctly.</i>                     | <i>Reposition then create vacuum by pressing slightly on the lid.</i> |

## 8. DISPOSAL OF THE MACHINE AND ITS PARTS



*For disposing of the VACUUM PACKAGING MACHINE or its components, do not dump these in city waste bins: scrapped appliances are not useless waste!*

The machine does not contain components that are hazardous for humans or the environment; it is made of materials that can be recycled completely or disposed of normally.



*For disposal operations, contact specialist, authorized Companies. Before starting dismantling operations, make sure there is enough clearance around the machine to carry out the operations easily.*

In any case, make sure, every part of the machine is disposed off in accordance with the legislation applicable in the country of use.

### 8.1 DISPOSING PNEUMATIC SPRINGS



***DANGER!** Danger of serious injury: the pneumatic springs are loaded at about 180 bar, therefore they must not be cut or damaged as they can burst throwing off splinters. The disposal of these parts must be done exclusively by qualified personnel.*

## 9. SPARE PARTS: GENERAL WARNINGS

For ordering spare parts, always indicate the following data:

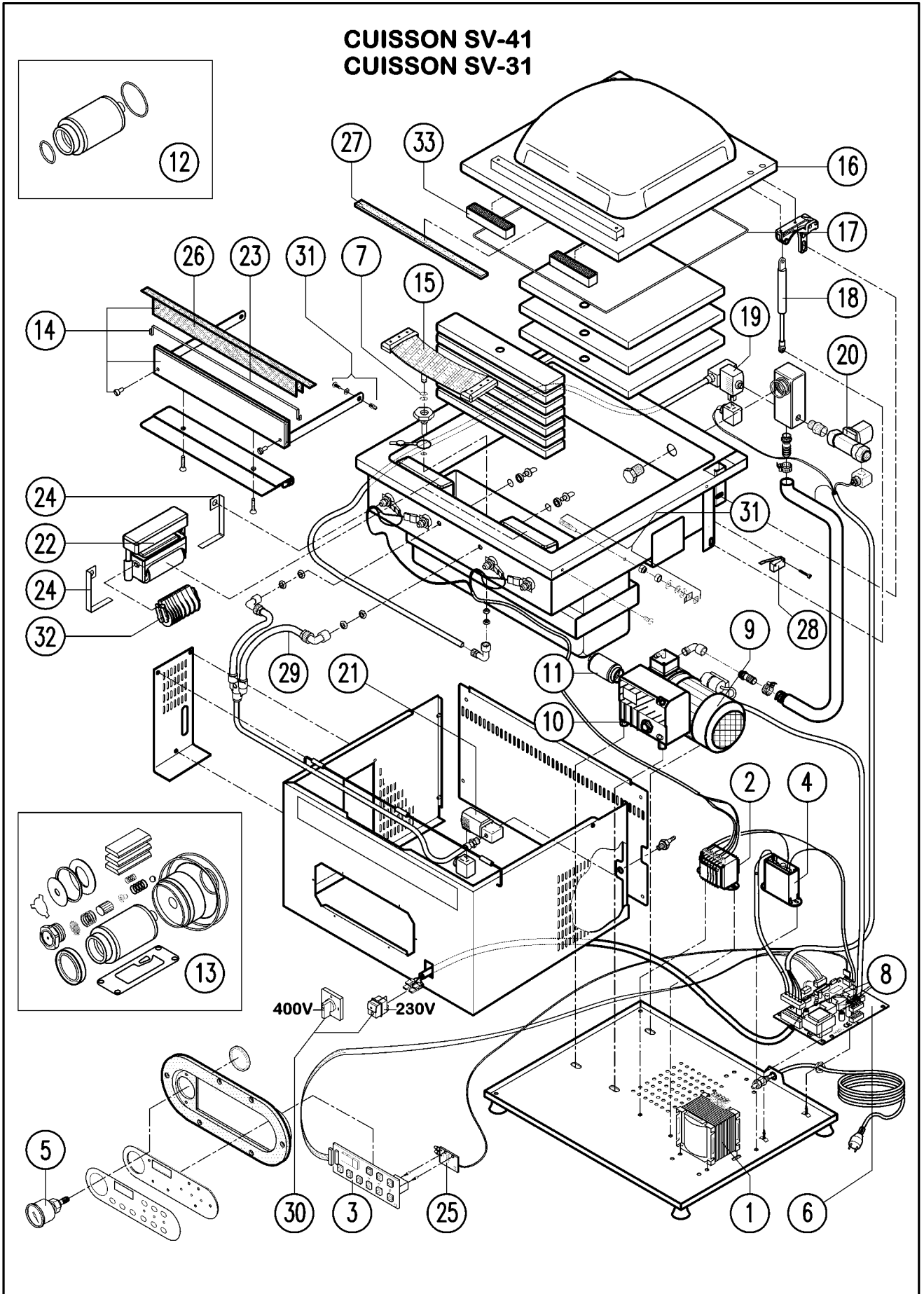
- MACHINE SERIAL NUMBER (see CE plate on the back of the machine)
- SPARE PART CODE (see Table)

## 10. THE MANUFACTURER

Thank you for your trust.

The manufacturer reserves the right to make technical and/or aesthetic modifications to our products at any moment, without any prior notice.

11. RICAMBI PRINCIPALI / MAIN SPARE PARTS / PIÈCES DE RECHANGE PRINCIPALES / HAUPTERASTZTEILE / PIEZAS DE REPUESTO PRINCIPALES



| NR.<br>DIS | Ricambio - Spare Part - Pièce de<br>Rechange - Ersatzteil - Repuesto   |                | SV31                           | SV41                           |
|------------|--|----------------|--------------------------------|--------------------------------|
| 1          | Trasformatore saldatura / Sealing transformer / Transformateur de soudure / Schweißstrafo<br>Transformador de sellado  |                | 1400269                        | 1400372                        |
| 2          | Trasf.datario / Dater transf./Transform.dateur<br>Datierer-trafo / Transf.de fechador  |                | 230V: 1400600<br>110V: 1400602 | 230V: 1400600<br>110V: 1400602 |
| 3          | Tastiera comandi / Command board / Pilotage électronique / Bedienungselektronik /<br>Panel de control  |                | 1400224                        | 1400224                        |
| 4          | Timer relé per datario / Timer relay for Dater<br>Relais timer pour dateur / Timer-Relais für Datierer<br>Relé timer para Fechador   |                | 1400603                        | 1400603                        |
| 5          | Vuotometro / Vacuum gauge / Vacuümètre<br>Vakuometer / Vacuómetro  |                | 1100165                        | 1100165                        |
| 6          | Scheda elettr. potenza H102.1<br>Power board H102.1/Platine de<br>p.ce H102.1/Steuerung H102.1<br>Panel p.H102.1   | 230V – 50Hz    | 1400589                        | 1400589                        |
|            |  | 115V-60Hz      | 1400590                        | 1400590                        |
| 7          | Anello OR Viton per raccordo / Viton O-ring for coupling nozzle / Joint O Viton pour raccord<br>O-Ring für Anschluss / O-ring para conector  |                | 1300828                        | 1300828                        |
| 8          | Fusibile / Fuse<br>Fusible / Sicherung<br>Fusible<br>PF1=Pompa/pump<br>PF2=Saldatura/Seal<br>PF3=Linea/Comm.board<br>PF4=Tra.scheda/Transf.  | PF1 230V-1Ph   | 1400119                        | 1400120                        |
|            |  | PF1 115V / 1Ph | 1400542                        | 1400374                        |
|            |  | PF2 230V-1Ph   | 1400116                        | 1400116                        |
|            |  | PF2 115V / 1Ph | 1400117                        | 1400117                        |
|            |  | PF3 230V-1Ph   | 1400112                        | 1400112                        |
| 9          | Pompa vuoto / Vacuum pump<br>Pompe à vide / Vakuumpumpe<br>Bomba de vacío  | 230V – 50Hz    | 1201408                        | 1202523                        |
|            |  | 115V – 60Hz    | 1201409                        | 1201499                        |
| 9A         | Pompa vuoto revisionata in rotazione / Reconditioned exchange vacuum pump<br>Pompe à vide reconditionnée en échange / Revidierte Austausch-Vakuumpumpe<br>Bomba de vacío revisada de intercambio |                | 1600539                        | 1600543                        |
| 10         | Olio/Pump Oil / Huile pompe<br>Pumpenöl / Aceite bomba   | 1LT            | 1600500                        | /                              |
|            |  | 2LT            | /                              | 1600504                        |
|            |  | 10LT           | 1601037                        | 1601038                        |
| 11         | Filtro disoleatore pompa / Pump Exhaust filter<br>Filtre air pompe / Luftentoelement / Filtro de Aire  |                | 1300634                        | 1301102                        |
| 12         | Kit Minor per Pompa vuoto / Minor Kit for Vacuum<br>pump / Kit Minor pour Pompe à vide / Minor-Kit für<br>Vakuumpumpe / Kit Minor para Bomba de vacío  |                | 1600523                        | 1600521                        |
| 13         | Kit Major per Pompa vuoto / Major Kit for Vacuum<br>pump / Kit Major pour Pompe à vide / Major-Kit für<br>Vakuumpumpe / Kit Major para Bomba de vacío  |                | 1600524                        | 1600522                        |
| 14         | Barra saldante,completa / Sealing bar,complete<br>Barre de soudure complète / Schweißleiste,<br>komplett / Barra de sellado,completa   |                | 1600638                        | 1601175                        |
| 15         | Cuscinetto sottobarra + raccordo/Sealbag+coup-<br>ling nozzle / Sac de soudure + raccord / Schweiß-<br>sack+Anschluss / Bolsa de soldadura + conector  |                | 1600949R01                     | 1600950R01                     |
| 16         | Coperchio Plexiglas / PMMA Cover<br>Couvercle Plexiglas/Plexiglasdeckel / Tapa PMMA  |                | 1301400                        | 1301275                        |
| 17         | Guarniz.coperchio (al mt) /Cover seal (Mt goods)<br>Joint couvercle (mt) / Deckeldichtung (lfm)<br>Buriete tapa (Mercancias del metro)   |                | 1300024                        | 1300024                        |
| 18         | Molla a gas per coperchio / Cover gas pressure<br>spring / Vérin à gaz pour couvercle / Gasdruck-<br>feder für Deckel / Muelle de gas para tapa  |                | 1201151                        | 1202101                        |
| 19         | Elettrovalvola cuscinetto/ Sealbag Solenoid valve<br>Electrovanne pour sac de soudure/Schweißsack-<br>Magnetventil / Electrovál para bolsa de soldadura  |                | 1100007                        | 1100007                        |
| 20         | Elettrovalvola rientro aria / Devacumate solenoid<br>valve/Electrovanne de décompression/Belüftungs-<br>Magnetventil / Electroválvula de descompresión   |                | 1100010                        | 1100009                        |
| 21         | Elettrovalvola gas / Gasflush solenoid valve<br>Electrovanne de injection gaz / Begasungs-<br>Magnetventil / Electroválvula de inyección gas   |                | 1100013                        | 1100013                        |
| 22         | Datario / Dater / Dateur / Datierer / Fechador   |                | 1601162                        | 1601162                        |
| 23         | Resistenza saldatura (al mt) / Sealing wire (Mt goods) / Fil de soudure(mt)<br>Schweißdraht (lfm) / Resistencia (mt.)  |                | 1601029                        | 1601029                        |
| 24         | Contatto datario / Dater contact / Contact dateur<br>Datiererkontakt / Contacto fechador   |                | 1400596                        | 1400596                        |
|            |  |                | 1400597                        | 1400597                        |
| 25         | Sensore vuoto (opz.digitali) / Vacuum sensor (digit.<br>opt.)/Capteur vide (opt.digitales) / Vakuumpdruckfühler<br>(digital opt.) / Sensor de vacío (modelos digital)                            |                | 1400229                        | 1400229                        |
| 26         | Teflon di copertura (al mt) / Teflon band (Mt goods)<br>Bande téflon (march.de mètre) / Teflonband (Meter-<br>ware) / Banda de téflon (Mercancias del metro)                                     |                | 1300001                        | 1300001                        |
| 27         | Profilo di silicone / Silicone rubber / Gomme de<br>silicone / Silikonkummi / Perfil de silicon  |                | 1300152                        | 1300153                        |
| 28         | Contatto Switch / Switch contact / Contacteur<br>Switch / Switch-kontakt / Contacto Switch   |                | 1400203                        | 1400203                        |
| 29         | Tube Rilsan Ø8x6 (al mt) / Ø8x6 Rilsan hose (Mt)<br>Tuyau Rilsan Ø8x6 (mt) / Ø8x6 Rilsanschlauch (lfm)<br>Manguera Rilsan Ø8x6 (Mt)  |                | 1300717                        | 1300717                        |
| 30         | Interruttore generale / Main Switch / Interrupteur<br>principal / Switch principal / Hauptschalter   |                | 230V:1400067<br>110V:1400094   | 230V:1400067<br>110V:1400094   |
| 31         | Contatti vasca / Chamber contacts / Contactes chambre à vide / Vakuumpammerkontakte<br>Contactos cámara de vacío   |                | 1400580<br>1400581             | 1400580<br>1400581             |
| 32         | Timbro / Rubber stamp / Timbre / Stempel / Timbre  |                | 1301263                        | 1301263                        |
| 33         | Tampone gomma / Rubber Pad / Tampon /<br>Pressgummi / Tampón de gomme  |                | 1301284                        | 1301284                        |