

12/2010

# **Mod: CSP2/9V**

**Production code: 40802102EHL**

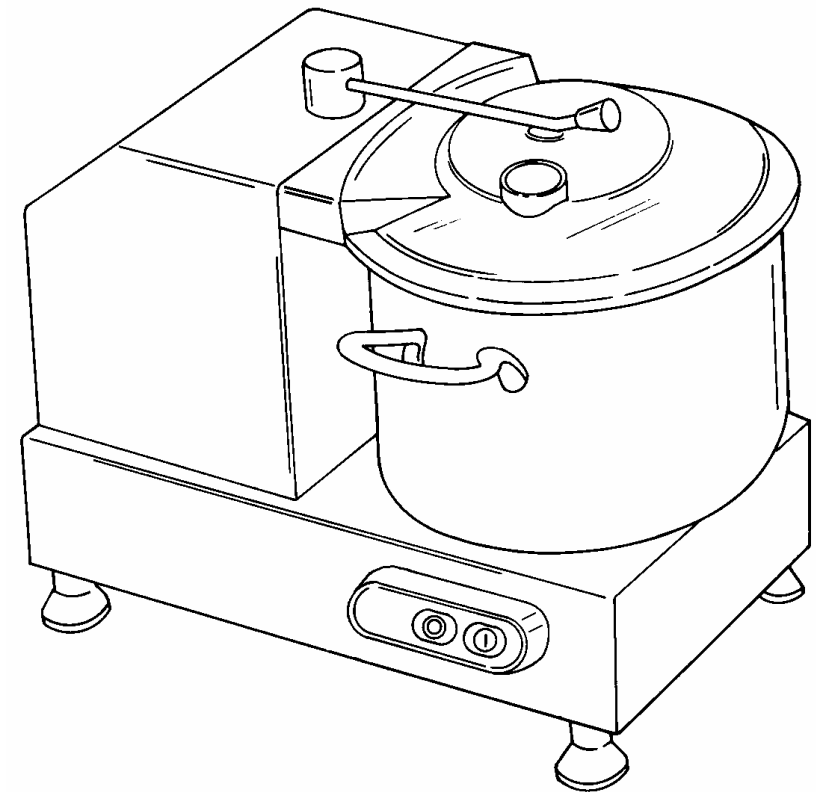


**Diamond**  
catering equipment

CUTTER CE of the line: C4  
C4 vv  
C6  
C6 vv  
C9 vv

---

## ***OPERATING AND MAINTENANCE MANUAL***



## INTRODUCTION

- This manual is meant to provide customers with any information on the machine and its specifications and the necessary operating and maintenance instructions in order to guarantee the best possible use of the machine and preserve its efficiency in time.
- This manual is to be handed over to qualified personnel well informed about the use of the machine and its periodical maintenance.

## **TABLE OF CONTENTS**

|                                                                                                                                                                                                                                                                                                                                                               |        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| <b>CHAP. 1 - INFORMATION ON THE MACHINE</b>                                                                                                                                                                                                                                                                                                                   | pag. 4 |
| <ul style="list-style-type: none"> <li>1.1 - GENERAL PRECAUTIONS</li> <li>1.2 - SAFETY DEVICE INSTALLED ON THE MACHINE</li> <li>1.2.1 - mechanical safeties</li> <li>1.2.2 - electrical safeties</li> <li>1.3 - MACHINE DESCRIPTION</li> <li>1.3.1 - general description</li> <li>1.3.2 - construction features</li> <li>1.3.3 - CUTTER components</li> </ul> |        |
| <b>CHAP. 2 - TECHNICAL DATA</b>                                                                                                                                                                                                                                                                                                                               | pag. 6 |
| <ul style="list-style-type: none"> <li>2.1 - OVERALL DIMENSIONS, WEIGHT, CHARACTERISTICS</li> </ul>                                                                                                                                                                                                                                                           |        |
| <b>CHAP. 3 - MACHINE RECEIPT</b>                                                                                                                                                                                                                                                                                                                              | pag. 7 |
| <ul style="list-style-type: none"> <li>3.1 - MACHINE SHIPMENT</li> <li>3.2 - PACKAGE CHECK UPON RECEIPT</li> <li>3.3 - PACKAGING DISPOSAL</li> </ul>                                                                                                                                                                                                          |        |
| <b>CHAP. 4 - INSTALLATION</b>                                                                                                                                                                                                                                                                                                                                 | pag. 8 |
| <ul style="list-style-type: none"> <li>4.1 - SETTING UP OF THE MACHINE</li> <li>4.2 - ELECTRIC CONNECTION</li> <li>4.3 - ELECTRIC DIAGRAMS</li> <li>4.3.1 - Single-phase electric diagram.</li> <li>4.3.2 - Single-phase electric diagram. Cutter with speed dial knob</li> <li>4.4 - OPERATION CHECKS</li> </ul>                                             |        |
| <b>CHAP. 5 - OPERATING OF THE CUTTER</b>                                                                                                                                                                                                                                                                                                                      | pag. 9 |
| <ul style="list-style-type: none"> <li>5.1 - CONTROLS</li> <li>5.2 - LOADING OF THE PRODUCT</li> </ul>                                                                                                                                                                                                                                                        |        |

## 5.3 - SHARPENING OF ROTATING BLADES

|                                                                                                                                                                                                                                |         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| <b>CHAP. 6 - ORDINARY CLEANING</b>                                                                                                                                                                                             | pag. 11 |
| <ul style="list-style-type: none"> <li>6.1 - GENERAL FEATURES</li> <li>6.2 - CLEANING PROCEDURE OF THE MACHINE</li> <li>6.2.1 - cleaning of lid, rotating blade holder and basin</li> <li>6.2.2 - ordinary cleaning</li> </ul> |         |
| <b>CHAP. 7 - MAINTENANCE</b>                                                                                                                                                                                                   | pag. 12 |
| <ul style="list-style-type: none"> <li>7.1 - GENERAL FEATURES</li> <li>7.2 - BELT</li> <li>7.3 - FEET</li> <li>7.4 - POWER SUPPLY CORD</li> <li>7.5 - BLADES</li> <li>7.6 - KEYBOARD LABEL</li> </ul>                          |         |
| <b>CHAP. 8 - DISPOSAL OF THE MACHINE</b>                                                                                                                                                                                       | pag. 12 |
| <ul style="list-style-type: none"> <li>8.1 - PUTTING THE MACHINE OUT OF SERVICE</li> <li>8.2 - DISPOSAL OF THE MACHINE</li> </ul>                                                                                              |         |

## **INDEX OF ILLUSTRATIONS**

|                                                                                    |         |
|------------------------------------------------------------------------------------|---------|
| <i>FIG. n° 1 - General view of the CUTTER</i>                                      | pag. 6  |
| <i>FIG. n° 2 - Overall dimensions drawings</i>                                     | pag. 6  |
| <i>FIG. n° 3 - Package description</i>                                             | pag. 7  |
| <i>FIG. n° 4 - Rating plate - serial number</i>                                    | pag. 8  |
| <i>FIG. n° 5 - Single-phase electric diagram.</i>                                  | pag. 9  |
| <i>FIG. n° 6 - Single-phase electric diagram.<br/>CUTTER with speed dial knob.</i> | pag. 9  |
| <i>FIG. n° 7 - Position of controls</i>                                            | pag. 10 |
| <i>FIG. n° 8 - Loading of the product.</i>                                         | pag. 10 |
| <i>FIG. n° 9 - Correct position</i>                                                | pag. 10 |
| <i>FIG. n° 10 - Knives holder removal</i>                                          | pag. 11 |

## CHAP. 1 - INFORMATION ON THE MACHINE

### 1.1 - GENERAL PRECAUTIONS

- The CUTTER should be operated only by qualified people who should be informed about the safety measures described in this manual.
- In case of personnel turn-over, training is to be provided in advance.
- Before starting cleaning and maintenance, disconnect the machine's plug from the power supply socket.
- Assess the residual risks carefully when protection devices are removed to carry out cleaning and maintenance.
- Cleaning and maintenance require great concentration.
- A regular control of the electric supply cords is absolutely necessary; a worn-out or damaged cord can expose users to serious electric shock hazard.
- If the machine shows malfunctions, it is recommended not to use it and to abstain from trying to repair it; please call the "SERVICE CENTRE".
- Do not use the machine for products with bones, frozen foods, fishes or any product other than food.
- Do not introduce fingers in the opening or inside the machine when it is functioning.
- The manufacturer is not liable in the following cases:
  - ⇒ if the machine has been tampered by non-authorized personnel;
  - ⇒ if some parts have been substituted by non original spare parts;
  - ⇒ if the instructions contained in this manual are not followed **accurately**;
  - ⇒ if the machine surface is not cleaned with the right product.

### 1.2 - SAFETY DEVICES INSTALLED ON THE MACHINE

#### 1.2.1 - mechanical safeties

The mechanical safety devices installed on the machine, described in this manual, comply with **EC 89/392** and mod. **EC 91/368, 92/31, 93/44, 93/68**.

- The safety protections are (*see 1.3.3*) the cover, which can be removed only when the tank locking arm is up.

#### 1.2.2 - electrical safeties

The electrical safety devices installed on the machine, described in this manual, comply with **EC 73/23, 89/336**, mod. **EC 91/368, 92/31, 93/44, 93/68** and regulations **EC EN 60335-1, EN 55014**.

The machine is equipped with:

- micromechanic which stop the machine when the closing arm is lifted (*see FIG. n°1*), and does not permit to start the machine if the cover is not closed;
- relay which in case the power supply is missing; it is necessary to restart the machine.

Even though the professional CUTTER **CE** are provided with electrical and

mechanical protections (when the machine is working and for maintenance and cleaning operations), there are still **RESIDUAL RISKS (EEC 89/392 point 1.7.2)** that cannot be eliminated completely, these risks are mentioned in this manual under **WARNING**. These risks are cutting dangers caused by the knives during the loading of the product, or during the maintenance operations.

### 1.3 - MACHINE DESCRIPTION

#### 1.3.1 - general description

Our firm has designed and manufactured the professional CUTTER **CE** to cut, crumble, whip, knead foodstuffs as vegetables, meat, bread, etc and guarantee:

- the highest degree of safety in functioning, cleaning and maintenance;
- the highest hygienic standards due to an accurate choice of materials and a smooth design of the CUTTER components which come into contact with foodstuffs in order to obtain easy and total cleaning and easy disassembly;
- solidity and stability of all components;
- the lowest noise level thanks to belt drive;
- great handiness.

#### 1.3.2 - construction features

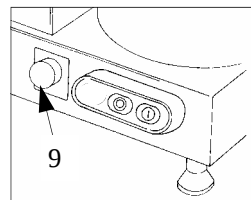
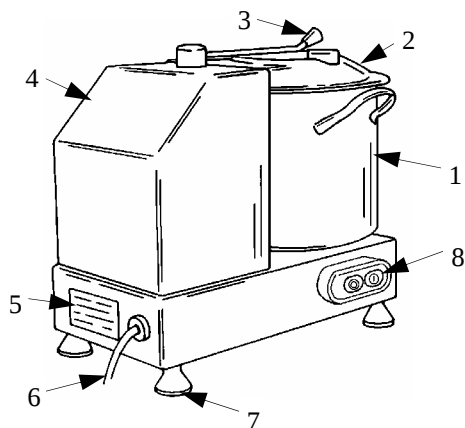
CUTTER models belonging to the above mentioned line are made of AISI 304 stainless steel. This guarantees high hygienic standards of those parts which come into contact with foodstuffs and offers resistance to acids, salts and oxidation processes.

The blades are made of AISI 420 stainless steel used for cutlery; they are grinded and hardened and can cut, mince, whip and knead without changing tools.

The basin is made of stainless steel 18/10 and is provided with heat spreading bottom and handles guaranteeing great handiness and easy removal.

### 1.3.3 - CUTTER components

FIG. n°1 - General view of the CUTTER



CUTTER with speed dial knob.

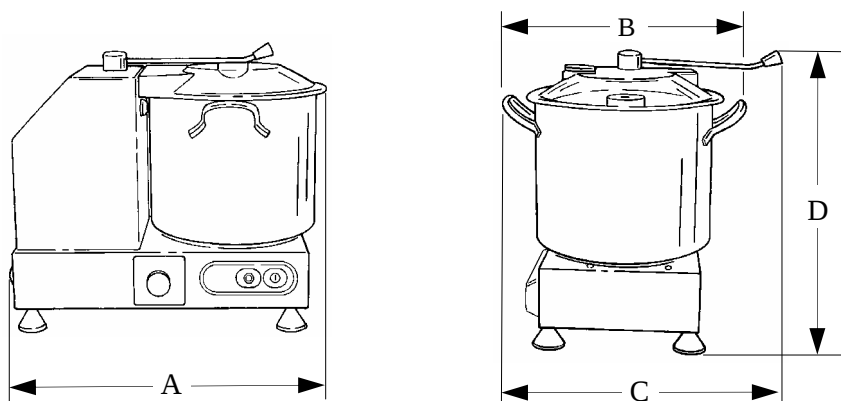
#### LEGEND:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| 1 - Basin                             | 6 - Power supply cord             |
| 2 - Lid                               | 7 - Feet                          |
| 3 - Closing arm                       | 8 - Push-button panel             |
| 4 - Body                              | 9 - Speed dial knob (for mod. VV) |
| 5 - Information plate - serial number |                                   |

## CHAP. 2 - TECHNICAL DATA

### 2.1 - OVERALL DIMENSIONS, WEIGHT, CHARACTERISTICS ...

FIG. n°2 - Overall dimensions drawings



TAB. n°1 - OVERALL DIMENSIONS AND TECHNICAL FEATURES

| Models             | U.m. | C4            | C4 VV     | C6        | C6 VV     | C9 VV           |
|--------------------|------|---------------|-----------|-----------|-----------|-----------------|
| Length A           | mm   | 380           | 380       | 380       | 380       | 470             |
| Width B            | mm   | 320           | 320       | 320       | 320       | 330             |
| Height C           | mm   | 370           | 370       | 370       | 370       | 395             |
| Max. height C      | mm   | 270           | 270       | 320       | 320       | 400             |
| Bowl capacity      | l    | 3.3           | 3.3       | 5.3       | 5.3       | 9.4             |
| Bowl filling level | l    | 1.5           | 1.5       | 3.1       | 3.1       | 5.4             |
| Blade rotations    | g/1' | 2600          | 1100÷2600 | 2600      | 1100÷2600 | 1100÷2600       |
| Motor              | HP/W | 0.5 / 350     | 0.5 / 350 | 0.5 / 350 | 0.5 / 350 | 0.5 + 0.5 / 700 |
| Power source       | Mn   | 230 V / 50 Hz |           |           |           |                 |
| Net weight         | Kg   | 10            | 10        | 11        | 11        | 25              |
| Degree of noise    | dB   | ≤ 75          |           | ≤ 75      |           | ≤ 75            |

**WARNING:** Electrical features of the CUTTER are shown in the information plate placed on the back side of the machine; before connecting the CUTTER to the electric system see **4.2. Electric connections.**

## CHAP. 3 - MACHINE RECEIPT

### 3.1 - MACHINE SHIPMENT (see FIG. n°3)

The CUTTER is accurately packed and then shipped from our warehouses; the package includes:

- a strong cardboard box;
- the machine;
- this manual;
- whetstone;
- scraper;
- EC conformity declaration.

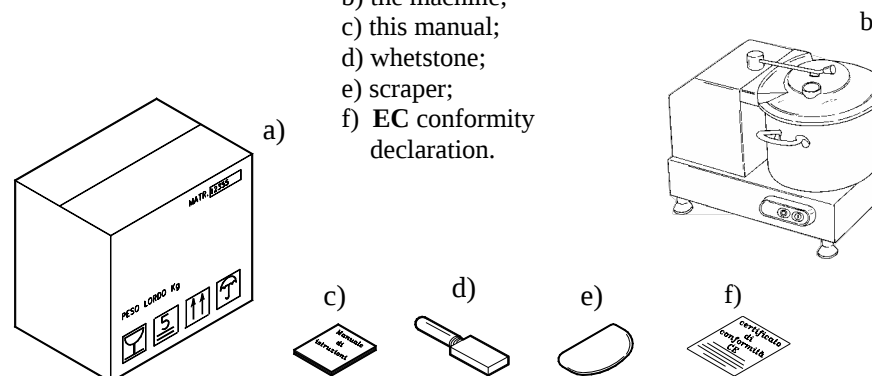


FIG. n°3 - Package description

### 3.2 - PACKAGE CHECK UP ON RECEIPT

If no external damage is evident on the package upon its arrival, open it and check that all the components are inside (see FIG. n°3). If the package has suffered rough handling, bumps or crashes, the carrier must be informed about any damage; moreover a detailed report on the extent of the damage caused to the machine must be filled within three days from the delivery date shown in the shipping documents. **Do not overturn the package!!** When the package is transported, make sure the box is lifted by the 4 corners (parallel to the ground).

### 3.3 - PACKAGING DISPOSAL

The components of the packaging (cardboard, pallet, plastic straps and polyurethane) are urban solid waste; therefore they can be easily disposed. If the machine has to be installed in countries where specific regulations are in force, packaging must be disposed in compliance with them.

## CHAP. 4 - INSTALLATION

### 4.1 - SETTING UP OF THE MACHINE

The machine must be installed on a working table suitable for its overall dimensions shown in Tab. 1 (in accordance with the model), therefore it must be adequately large, well levelled, dry, smooth, resistant, stable. Moreover the machine must be installed in a room with max. 75% not saline humidity at a temperature between +5°C and +35°C; that is to say in a place that does not provoke the machine failure.

### 4.2 - ELECTRICAL CONNECTIONS

The appliance is equipped with a power supply cord which section 3x1.5mm<sup>2</sup>, length 1.5m with a "SUKO" plug. Connect the appliance to 230 Volt 50 Hz, by interposing a differential-magnetothermic switch of 10A,  $\Delta I = 0.03A$ . Check that the earthing is fully operational. Moreover check that the features on the rating plate - serial number (see FIG. n°4) correspond to the features shown in the consignment and delivery note.

|                  |                    |
|------------------|--------------------|
| Mod.             | _____              |
| Matr.            | _____ Watt.        |
| _____ H.p.       | _____ A. _____ Hz. |
| ○ _____ ~ Volts. | _____ Kg. ○        |
| Anno             | _____              |

FIG. n°4 - Rating plate - serial number

## 4.3 - ELECTRIC DIAGRAMS

### 4.3.1 - Single-phase electric diagram

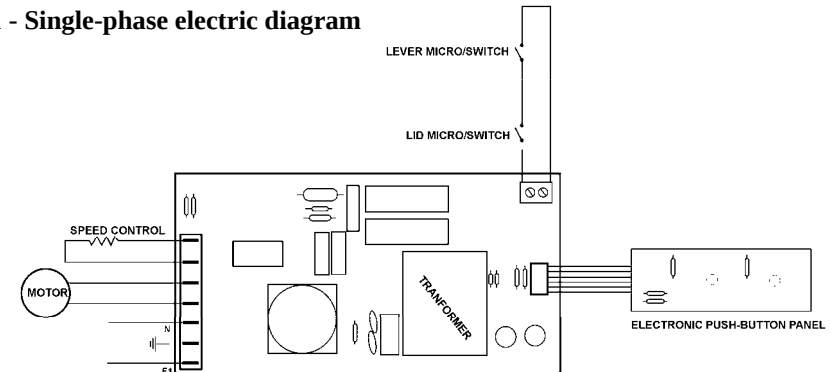


FIG. n°5 - Single-phase electric diagram.

### 4.3.2 - Single-phase electric diagram. CUTTER with speed dial knob.

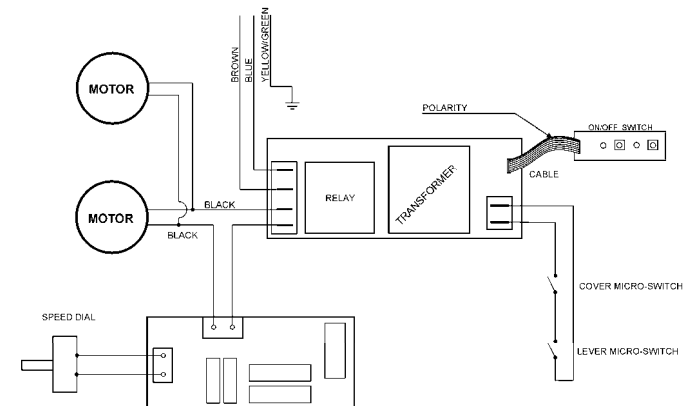


FIG. n°6 - Single-phase electric diagram. CUTTER with speed dial knob.

## 4.4 - OPERATION CHECKS

Check the proper functioning of the machine according as follows:

- 1 press the start button "I" and the stop button "O";
- 2 check whether the machine stops after the lid has been removed;
- 3 in case of a CUTTER equipped with a speed dial knob, check whether the number of rotations increases by adjusting the knob clockwise.

## CHAP. 5 - USE OF THE MACHINE

### 5.1 - CONTROLS

Controls are placed on the CUTTER body as shown in the picture below.

**NOTE:** The speed dial knob (1) is installed only in the vv model.

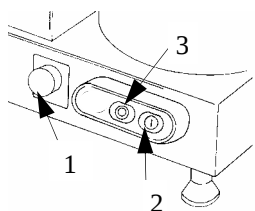


FIG. n°7 - Position of controls

## 5.2 - LOADING OF THE PRODUCT (see FIG. n°8)

**NOTE:** Products to be cut must be loaded onto the basin when the motor is switched off and in case of a CUTTER vv after the speed dial knob has been set to the "0" position.

The procedure is as follows:

- 1 rotate the arm (ref. 1 - FIG. n°8) anticlockwise in order to remove the lid (ref. 2 - FIG. n°8);
- 2 (**WARNING**) load the product into the basin (ref. 3 - FIG. n°8) and be careful of the two blades; if the product is in large pieces, break them into smaller pieces by hand before putting them onto the basin. **WARNING !! Fill with liquid products to the maximum height shown on the bowl;**
- 3 to avoid accidents, place yourself correctly (see FIG. n°9): the body must be perpendicular to the working table; the hands must not force on the machine or stop its movement .

**Never lean on the machine and avoid any direct contact with it .**

- 4 re-position the lid and rotate the arm to closed position;
- 5 start the machine by pushing the start button "I" (ref. 2 - FIG. n°7);
- 6 don't use la machine at low speed for long time;
- 7 load additional quantities of product through the upper hole (ref. 4 - FIG. n°8) during cutting, if necessary;
- 8 once the product has been cut, stop the machine by pushing the red stop button (ref. 3 - FIG. n°7). If the CUTTER is provided with a speed dial knob, adjust it to the "0" position (ref. 3 - FIG. n°7) and then stop the machine.

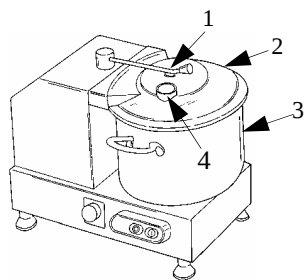


FIG. n°8 - Loading of the product.

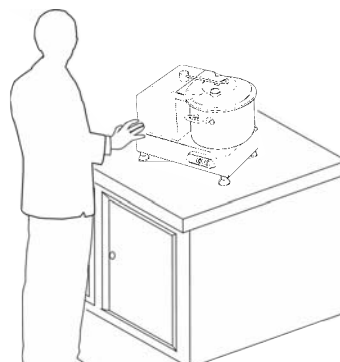


FIG. n°9 - Correct position

## 5.3 - SHARPENING OF ROTATING BLADES

**WARNING:** Follow the the instructions below to sharpen the two blades if they do not cut properly:

- 1 rotate the closing arm (1) so as to remove the lid (2);
- 2 remove the rotating blade holder (3);
- 3 use the sharpening stone supplied with the machine and sharp knife on the cutting edge, from internal towards esternal till reviving the blade edge.

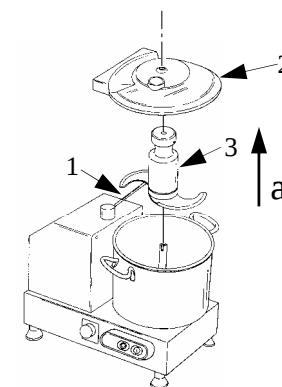


FIG. n°10 - Knives holder removal

## CHAP. 6 - ORDINARY CLEANING

### 6.1 - GENERAL FEATURES

- The CUTTER cleaning must be carried out at least once a day or more frequently, if necessary.
- Cleaning must be extremely accurate for those parts of the CUTTER which come into direct or indirect contact with foodstuffs.
- The CUTTER must not be cleaned with water-cleaners and high pressure jets of water. Tools, brushes and other devices likely to damage the CUTTER's surface must not be used.

Before carrying out any cleaning operation it is necessary:

- a) to disconnect the power supply plug from the socket to isolate the CUTTER from the rest of the electric circuit completely;
- b) to set the dial knob to the "0" position in case of a vv model.

### 6.2 - CLEANING PROCEDURE OF THE MACHINE (see FIG. n°10)

#### 6.2.1 - cleaning of lid, rotating blade holder and basin

**WARNING:** Rotate the closing arm (1) and lift the lid (2).

Now the blade holder (3) and the basin (4) can be easily removed by pulling them upwards (a).

Once they have been removed, clean them with water and neutral detergent.

**NOTE:** proceed with this operation wearing protection gloves.

#### 6.2.2 - ordinary cleaning

**NOTE: Disconnect the power supply plug**

Cleaning of the machine body on the worktable can be carried out with neutral detergent and a damp cloth frequently rinsed in water.

When cleaning has been completed, dry the components accurately.

## ***CHAP. 7 - MAINTENANCE***

### **7.1 - GENERAL FEATURES**

Before starting any maintenance activity it is necessary:

- a) to disconnect the power supply plug from the socket to isolate the CUTTER from the electric circuit completely.
- b) if the CUTTER is a vv model, to set the speed dial knob to the “0” position.

### **7.2 - BELT**

The belt does not need to be adjusted. Generally it must be replaced after 3/4 years; in this case, please call the “SERVICE CENTRE”.

### **7.3 - FEET**

Feet might deteriorate and lose elasticity; consequently the stability of the machine might be reduced.

In this case they must be replaced.

### **7.4 - POWER SUPPLY CORD**

Periodically check whether the power supply cord is worn-out and, if this is the case, please call the “SERVICE CENTRE” to have it replaced.

### **7.5 - BLADES**

Check that blades have not lose more than 5 mm of thickness after sharpening.

Call the “SERVICE CENTRE” to have them replaced.

### **7.6 - KEYBOARD LABEL**

The label of the keyboard could be marked and/or holed. In this case, please call the “SERVICE CENTRE” to have it replaced.

## ***CHAP. 8 - DISPOSAL OF THE MACHINE***

### **8.1 - PUTTING THE MACHINE OUT OF SERVICE**

If for some reason, you decide to put the machine out of service, make sure nobody can use it: **disconnect it from the mains and eliminate the electrical connections.**

### **8.2 - DISPOSAL OF THE MACHINE**

When the machine is out of service, it can be eliminated. To dismantle the machine contact a Specialized Centre, paying attention to the different materials used ( **see chap. 1 par. 3.2** ).