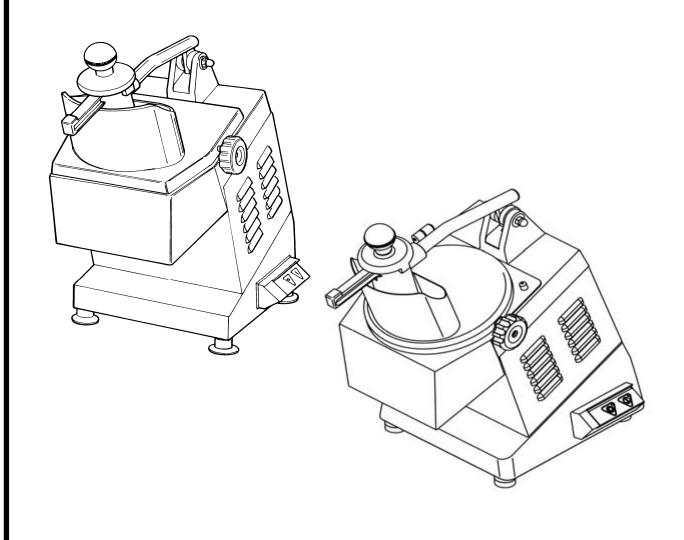
OPERATING AND MAINTENANCE MANUAL



VEGETABLE CUTTER

NOTE

- This manual has been written to supply our Client with all the information regarding the machine and the applicable specifications for its utilisation, including the instructions for use and maintenance that allow for the best utilisation of the equipment, maintaining its efficiency with time.
- This manual is to be consigned to the operators intended to use the machine and see to its maintenance.

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CHAP.1 - INFORMATION ON THE MACHINE

1.1 - GENERAL PRECAUTIONS

- The vegetable cutter must only be used by trained personnel, who are perfectly familiar with the safety regulations contained in this manual.
- Provide timely training to personnel that may have to be in the vicinity of the machine.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children being supervised not to play with the appliance.
- Eventhough the machine is equipped with safety devices, avoid putting ones hands close to the moving parts.
- Prior to cleaning or maintenance, disconnect the machine from its electrical supply network.
- When intervening for the cleaning or maintenance of the Vegetable cutter (and thus the protective devices are removed), carefully evaluate the degree of risk involved.
- During the cleaning or maintenance, maintain ones concentration on the operation being performed.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Should one presume or should the machine show signs of malfunctioning it is advisable not to use it and call the "Assistance Centre" to be found on the back of the manual.
- Do not use the Vegetable cutter for frozen products, meat and fish with bones and any non-food products.
- Do not intervene directly in repairing the machine, but call an authorized technician.
- Always use the press with pestle to cut the merchandise
- To avoid any kind of problem, do not overfill the conductor and do not press too hard.
- The manufacturer is exempt of any responsibility in the following cases.
 - ⇒ The machine is manipulated by unauthorized personnel;
 - ⇒ Components are replaced by other **non originals** and **discs not supplied by ourselves**:
 - ⇒ The instructions in this manual are not followed with attention;
 - ⇒ The surfacaes of the machine are treated with inappropriate products.

1.2 - DESCRIPTION OF THE MACHINE

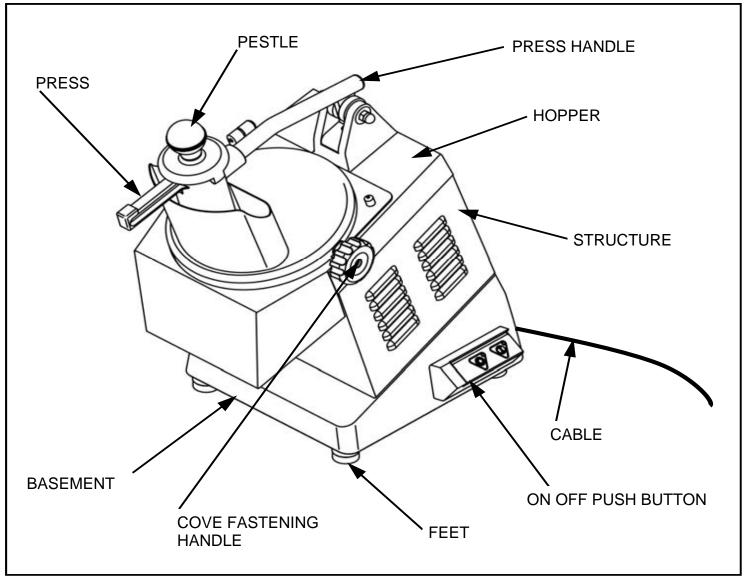


Fig. n°1 - General view of the Vegetable cutter mod. "TM"

1.2.1 - GENERAL DESCRPTION

The TM Vegetable cutter was specifically designed to cut vegetables, fruit and mozzarella cheese guaranteeing:

- maximum safety when being used, cleaned and under maintenance;
- maximum hygiene, attained thanks to a scrupulous selection of material that comes into contact with the food, and to the elimination of sharp corners on the parts of the vegetable cutter that come into contact with the product, this achieving easy and complete cleaning and facilitating dismantlement;
- the robustness and stability of all the components;
- maximum silence thanks to its belt transmission;
- great manageability.

1.2.2 - COSTRUCTION PARTICULARS (Materials used)

The **TM** Vegetable cutter is built adopting material highly resistant to mechanical wear and tear, structural shock, and the corrosive agents normally found within the products to be processed.

Particularly:

- The processing hopper, cover (ver. TM Alu) and base are in polished alluminium, which besides its high oxidation resistence, also guarantees hygienic contact with food and the nonadherence of acid and salts.
- The structure, cover (ver. TM s/s), press lifter, disc carrying shaft in AISI 304 o 430.
- Pestle, press, receiving tray, and control box in highly resistant plastic, sutable for contact with food.
- The discs for processing the product are:
- a) The DF, DQ and PS series have an alluminium supporting structure and knives in AISI 420 steel.

1.3 - SAFETY

1.3.1 - GENERAL SAFETY

The TM Vegetable cutter described in this manual adheres, as far as mechanical, electrical and hygienic safety are concerned, to the specifications laid down in:

MECHANICAL SAFETY: 2006/42.

ELECTRICAL SAFETY: 2006/95/CEE; 2004/108/CEE.

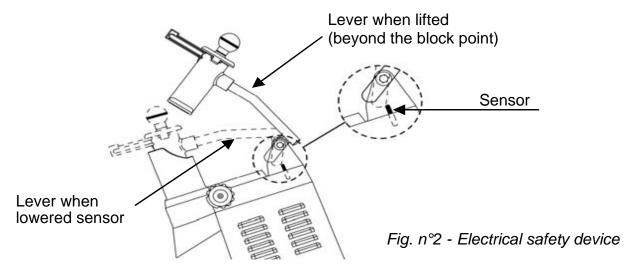
HYGIENIC SAFETY: Reg. 1935/2004.

** The Vegetable cutter is endowed with specified measures for electrical and mechanical protection in the processing phase as well as the cleaning and maintenance phases. There is, however, a **RISK FACTOR** that may not be entirely eliminated, in this manual recalled in form of **ATTENTION**. This regards the danger of being cut derived from the manipulation of the discs during their replacement and/or cleaning.

1.3.2 - ELECTRICAL SAFETY

The TM Vegetable cutter is endowed with sensor:

A on the press lever, able to block the functioning of the machine should the lever be lifted beyond the block point of the lid and allows for the automatic start at the moment the abovementioned dangerous conditions are eliminated (Fig. n°2).



B on the hopper, able to block the functioning of the machine should the cover be removed (e.g. to replace the discs) (Fig. n°3A), and that allows for the **volontary start** of the machine (pushing the "l" button) only once the cover is in the closed position, adequately clamped with the specific handle of the lid (Fig.n°3)

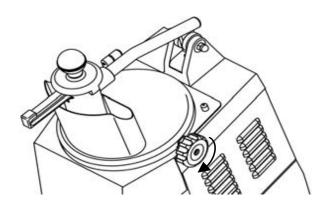


Fig. n°3 - Mechanical safety device

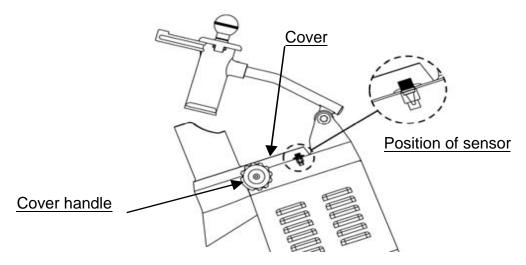


Fig. n°3A - Electrical safety device

C on the structure able to block the functioning of the machine should the collecting tray or slide be incorrectly positioned at the unloading opening, and that allows for the **volontary start** of the machine(pushing the "I" button) only once the tray and slide are adequately positioned.

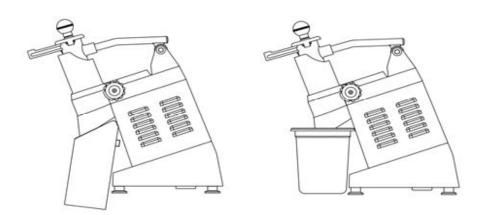
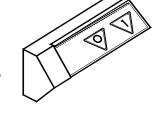


Fig. n°4 - Position of the slide or tray to allow for ignition

Furthermore, the T.M. Vegetable cutter is endowed with a controlling device made up of:

D an insulated IP 54 "O" (Fig. n°5).

Fig. n°5 - On - Off card



E an insulated IP X3 power card, made up of a transformer and two homologated rays, run by a control box and by sensors positioned on the tray, the slide and on the cover; able to switch the machine on and off. The TM Vegetable cutter allows for a N.V.R. device which, in case of renewed tension after previous failure, allows for the machine to be switched on exclusively by means of the START button "I".

1.4 - ACCESSORIES + UTENSILS

1.4.1 - ACCESSORIES

The TM Vegetable cutter is supplied with many accessories. Some are supplied as standard accessories, others only upon specific request by the Client.

1.4.1.1 - STANDARD ACCESSORIES

Pestle: in non-toxic polyethilene facilitates cutting the product, introduced via the conductor positioned on the press, in small pieces (Fig.n°6)

non-toxic polyethilene, in the "GASTRONORM" dimension of 1/3, Collecting tray: in **h=200**; endowed with a magnetic sensor (Fig. n° 7).





Fig. n°6 - Vegetable-pressing pestle Fig. n°7 - Tray with magnetic sensor

1.4.1.2 - NON-STANDARD ACCESSORIES

in AISI 304 steel, replaces the tray and facilitates the product falling into a recipient generally positioned at the bottom of the processing surface (Fig. n°8).

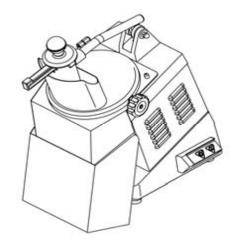


Fig. n°8 - Product conveying slide

Expulsion palette: in AISI 304 steel is assembled within the disc-holding pivot. Facilitates the expulsion of the cutted product. It may

be used only with DTV, DT2 - 3 - 4 - 7 - 9, DF1 - 2 - 3 - 4

(Fig. n°9)



Disc holder: in non-toxic plastic-coated steel it is useful for collecting the discs (*Fig.*n°10).

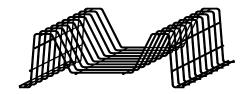


Fig. n°10 - Disc shaft

1.4.2 - UTENSILS

The TM Vegetable cutter, upon request, may be supplied with various kinds of discs, suitable for different kinds of processing.

- DISCS FOR SLICING "DF:

They have an aluminium supporting structure with AISI 420 steel knives.

The following discs are available:

DF1

DF2

DF3

DF4

DF5 specifically for tomatoes and peppers

DF8

DF10

DF14

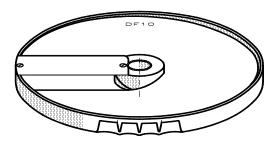


Fig. n°11 - "DF" type utensil

- DISCS FOR SHREDDING DT":

They have an aluminium supporting structure, while the body of the disc is in AISI 420 steel.

The following discs are available:

DTV for grating

DT2

DT3

DT4

DT7

DT9 specifically for mozzarella

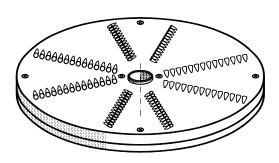


Fig. n°12 - "DT" type utensil

- DISCS F R CUTTING IN STICKS"DQ":

They have an aluminium supporting structure with AISI 420 steel knives.

Digy following discs are available:

DQ6

DQ8

DQ10

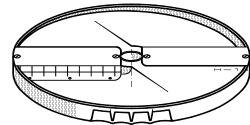


Fig. n°13 - "DQ" type utensil

- DISCS FOR CUTT NG IN CUBES "PS":

They have an aluminium supporting structure with AISI steel knives.

The following discs are available:

PS8	coupled with	DF8
PS10	•	DF10
PS20		DF14

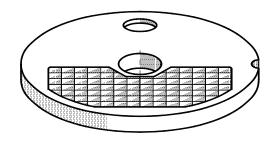
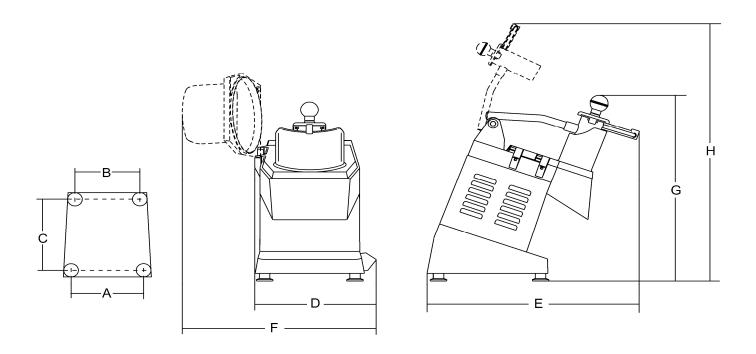


Fig. n°14 - "PS" type utensil

CAP.2 - TECHNICAL INFORMATION

2.1 - ENCUMBRANCE, WEIGHT, CHARACTERISTICS ...

Fig. n°15 - Dimensions and maximum encumbrance



	u.m.	TM steel cover	TM aluminium cover
Electrical supply	1ph 3ph	230 V./ 50 Hz 230-400 V./ 50 Hz	230 V./ 50 Hz 230-400 V./ 50 Hz
Power	watt / Hp	515 / 0.7	515 / 0.7
Disc revolutions	r.p.	300	300
AxBxC	mm	225 x 195 x 255	225 x 195 x 255
D x E x G	mm	280 x 510 x 510	280 x 510 x 510
FxExH	mm	400 x 510 x 770	400 x 510 x 770
Nett weight	kg	17,5	18,5
Noise level	dB	70≤	70≤

The electrical characteristics of the machine are indicated on a plate applied to its back, before proceeding to the installation, see point 4.2 - ELECTRICAL INSTALLATION.

CAP. 3 - RECEIVING THE MACHINE

3.1 - CONSIGNMENT OF THE MACHINE (see Fig. $n^{\circ}16$) The TM Vegetable cutter leaves our premises accurately packed; the packing consist of:

- a) external box in sturdy cardboard;
- b) the machine;
- c) inserts to keep the machine stable;
- d) tray;
- e) pestle;
- f) this manual;
- g) certificate of conformity CE.

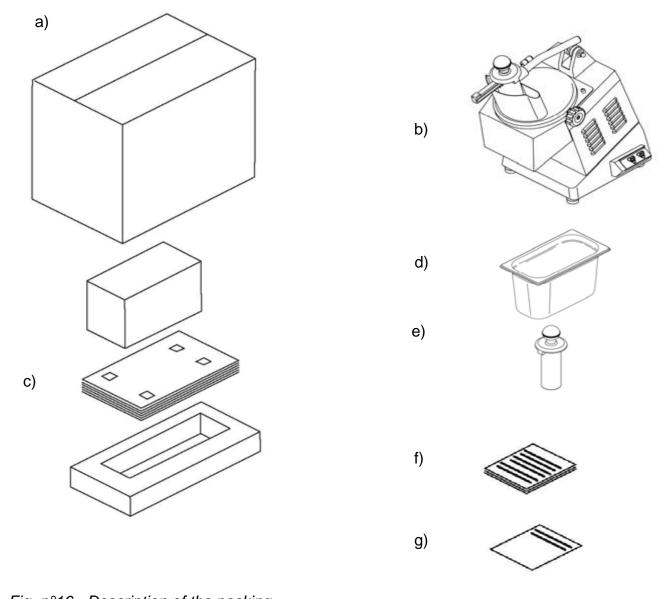


Fig. n°16 - Description of the packing

3.2 - CHECKING PACKING AND CONTENTS UPON RECEIPT

Upon receipt of the parcel containing the TM Vegetable cutter, accurately check the packing to ensure that it has not been seriously damaged during transportation. Upon examination, should the external packinging present signs of manhandling, jolting or falling, it is necessary to point out the damage to the transporter and, within three days of the delivery date indicated on the documents, file a written report of any possible damage to the machine. DO NOT TURN THE PACKING UPSIDE DOWN!! At the moment of transportation, ensure that the same is solidly lifted by the 4 fundamental points (keeping it parallel to the floor).

3.3 - DISPOSAL OF PACKING

The packing components (cardboard, pallet (if necessary), plastic straps and polyurethane foam) are products compatible with solid urban refuse; for this reason they may be disposed of without difficulty. Should the machine be installed in countries with particular specifications, dispose of the packing as indicated by the laws in force in such countries.

CHAP.4 - INSTALLATION

4.1 - POSITIONING THE MACHINE

The surface upon which the machine will rest must be chosen bearing in mind its encumbrance as indicated in Fig.n°15 (and thus be sufficiently large); it must be even, dry, smooth, sturdy and stable, with a height of roughly 80 cm from the floor. Furthermore, the machine must be positioned in an environment with a maximum non-saline humidity of 75% where the temperature ranges between +5°C and +35°C; in other words an environment that does not cause the malfunctioning of the same.

4.1.1 - COLLECTING DEVICE WITH TRAY

Should the TM Vegetable cutter be supplied with a collecting tray, position it under the unloading opening of the machine, so as to adequately cover the unloading area, with the magnetic sensor facing towards the inside of the machine (fig. n°17).

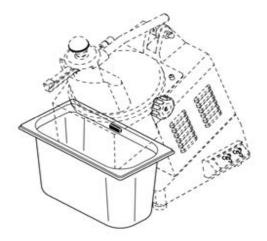


Fig. n°17 - Collecting device with tray

4.1.2 - CONVEYOR WITH "SLIDE"

Should the TM Vegetable cutter be supplied with a conveying slide, position the same under the unloading opening (Fig. n°18).

NB. For correct assembly:

Pass the screws through the holes of the slide pushing ther down until the slide is completely hooked in place.

SUSHIN SIRECTI

Fig. n°18 - Conveing accessory "slide"

4.2 - ELECTRICAL INSTALLATION

4.2.1 - T.M. MONOPHASE VEGETABLE CUTTER (220/230 Volt, 50 Hz) The TM Vegetable cutter is supplied with an electrical lead of 3x1 mm² Section; 1,5 m length, and with a 'SHUKO' plug. Link the Vegetable cutter to a monophase 220/230 Volt 50 Hz network, inserting a 10 A, $\Delta I = 0.03$ A differential-magnetothermical switch.

Ensure that the earthing network is perfectly functional.

Furthermore check that the information on the Technical-registration plate (fig. n°19) corresponds to the information on the consignment and other accompanying documents.

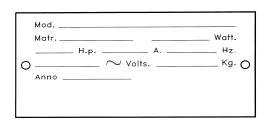


Fig.n°19 -Technical-registration plate

4.2.2 - T.M. TRIPHASE VEGETABLE CUTTER (400 Volt, 50 Hz)

The TM Vegetable cutter is supplied with an electrical lead of $5x1 \text{ mm}^2$ section; 1,5 m length. Link the Vegetable cutter to a 400 Volt 50 Hz threephase supply network by means of a **CEI red** plug, inserting a 10 A, $\Delta I = 0.03$ A differential-magnetothermical switch.

Ensure that the earthing network is perfectly functional.

Furthermore, check that the information on the Technical-registration plate (Fig. n°19) corresponds to the information on the consignment and other accompanying documents.

Before permanently linking the machine to the threephase supply cable, check the rotation direction of the discs (for assembly see chap. 5.1.) with a single

pulse of the "l" (on) button immediately followed by a stop effected by the "O" (off) button. The blades should have an anti-clockwise rotation when looking at the discs through the hole positioned on the press (Fig.n°20).

Should the rotation direction not be exact, invert (inside the plug) two of the three supply wires (black and grey).

The threephase engines assembled in the Vegetable cutter may work with both 220V threephase current, as well as with 400V threephase current. Unless otherwise specified, the machine whould be linked to a 400 V supply; for adjustment to a 230V threephase supply network, request the intervention of the "ASSISTANCE SERVICE".

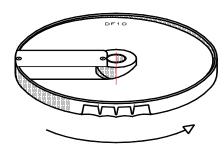


Fig. n°20 - Direction of disc rotation

4.3 - ELECTRICAL DRAWING OF THE VEGETABLE CUTTER TM

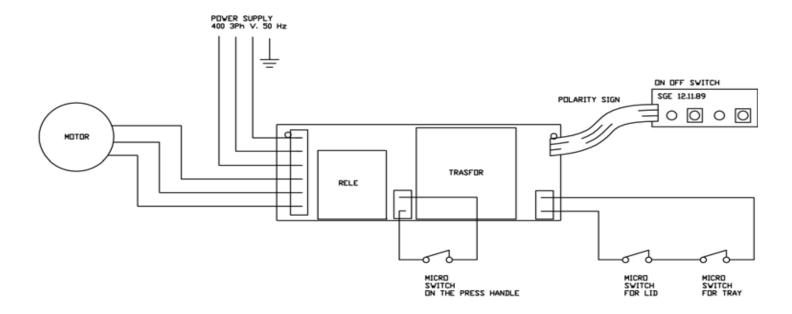


Fig. n°21 - Drawing of 400 Volt threephase electrical installation

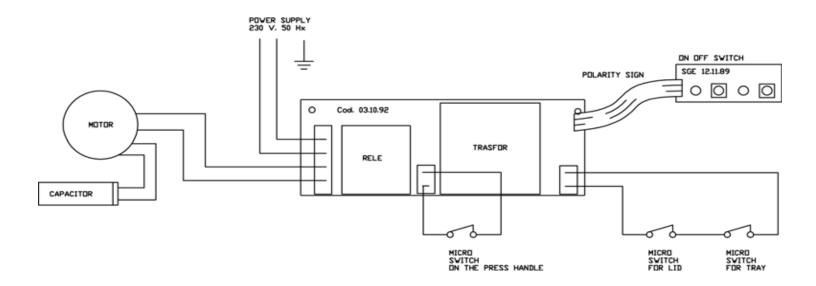


Fig. n°21-A - Drawing of 230 Volt monophase electrical installation

4.4 - CHECKING THE FUNCTIONING ORDER

Test the functioning order using the following procedures:

- a) Push the on button "I" and then the off button " \mathbf{O} " and check that the buttons start and stop the machine respectively (Fig. $n^{\circ}22$).
- b) Check that the motor stops and subsequently starts when lifting and lowering the press lever.
- Check the machine stops when the cover is removed and that it restarts pushing the START "I" button only once the cover has been replaced.
- d) Check as per point "c" removing and repositioning the tray or slide.

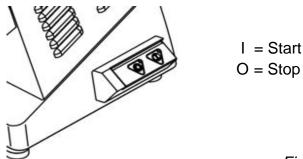


Fig. n°22 - ON/OFF switch

CHAP.5 - USE OF THE MACHINE

5.1 - DISC ASSEMBLY - ATTENTION! -

A Select the desired disc choosing from DF 1-2-3-4-5-8-10-14, DTV, DT 2-3-

4-7-9, or DQ 4-6-8-10; after having removed the steel or aluminium cover, position it on the disc holding shaft. Let it rotate normally until it is completely hooked. Replace the cover clamping it shut with the hinged clasps of the steel cover or the fastening handle of the aluminium lid.

B (FOR CUTTING CUBES)

Select the desired coupled discs from PS8-DF8, PS10-DF10, PS20-DF14. First insert the PS disc, with the hollow side facing to the right when on is facing the machine. Then assemble the DF disc with the same procedure described in point "A" (see Fig. n°24).

NB: THE EXPULSION PALETTE MUST NOT BE ASSEMBLED

TOGETHER WITH THE COUPLED DISCS PS-DF

C Should the machine be supplied with the expulsion palette (Fig. n°9), it is advisable to use it together with the DF 1-2-3-5, DTV, DT 2-3-7-9, DQ4 discs. The palette must be assembled onto the disc holding pivot prior to any other disc (as per Fig. n°23). Then assemble the disc with the same procedure described in point "A".

Case in which the expulsion palette must not be assembled

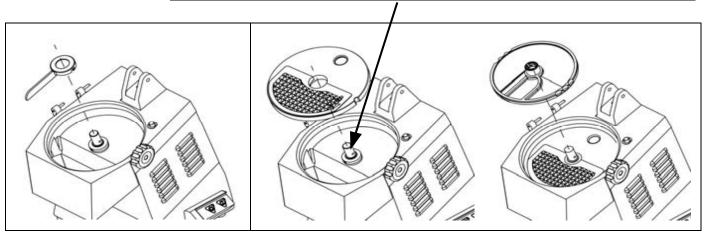


Fig. n°23 Fig. n°24

Fig. n°23 - Assembly of expulsion palette Fig. n°24 - Assembly of coupled discs PS- DF

5.2 - PRODUCT LOADING AND CUTTING

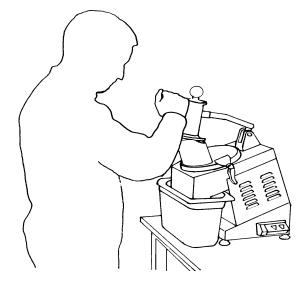


Fig. n°25 - Correct position

ATTENTION!

While the machine is operational one must be correctly positioned to avoid accidents. Ones body must always be perpendicular to the processing surface (see Fig. n°25). Do not position oneself so as to have dirrect contact between parts of ones body and the moving machine.

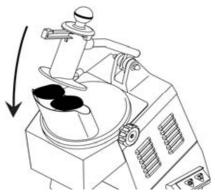
N.B. The product to be processed by the TM must be loaded when the motors are off.

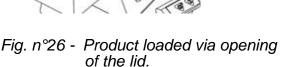
The procedure is as follows:

A Load the product to be processed in the opening for the lid (as per fig $n^{\circ}26$).

If the product is small in size (like carrots, baby marrows etc.) load the material via the conductor on the lever (as per fig.n°27). Switch on the machine and help the processing by gently pushing on the press or by using the pestle if the opening is used

B Once all of the product inserted has been processed and by lifting the thrusting lever, a safety mechanism will prevent the machine from continued processing. Once more product has been loaded and the lever has been lowered, the machine will automatically restart.





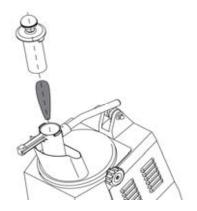


Fig. n°27 - Product loaded via conductor on the lever

- C Proceed as described in point **5.1** "A" for the replacement of discs and thus change in processing. After this operation the electrical system will prevent the machine from starting automatically; push the "I" button to get it started again.
- D If the collecting tray is used, empty its contents every 2-3 cycles. Use of the machine when the tray is overfull may hinder the correct flow of the cut product from the processing area, causing incorrect cutting, jamming the machine or damage the motor.

CAP.6 - MAINTENANCE AND PRACTICAL ADVISE

6.1 - GENERAL REMARKS

Prior to performing any operation it is necessary to:

Remove the plug from the supply network in order to completely isolate the machine from the rest of the installation

6.1.1 - BELT

There is no need to adjust the belt. It generally needs to be replaced after 3-4 years, in case of breakage call the "Assistance Centre".

6.1.2 - FEET

With time the feet may deteriorate and lose their elasticity, thus diminishing the stability of the machine. See to their replacement if this is the case.

6.1.3 - SWITCH LABELS

The switch labels may become stained and/or form holes with wear and tear. Call the "Assistance Centre" for their replacement..

6.1.4 - ELECTRICAL LEAD

Periodically check the wear and tear on the electrical lead and call the "Assistance Centre" should replacement be necessary.

6.1.5 - DISCS

The cutting edge of the blade may deteriorate with use.

For the DTV, DT 2, 3, 4, 7, 9 and PS 6, 8, 10, 20; discs, new ones will have to be acquired. For the DF 1, 2, 3, 4, 5, 8, 10, 14 e DQ 4, 6, 8, 10 discs, the blades may be replaced. In such case, call the "Assistance Centre" specifying the exact code of the disc.

6.2 - WHAT TO DO IF...

6.2.1 - The disc break is defective:

Check that the discs and disc holding pivot have been properly cleaned.

6.2.2 - The lid does not clamp shut:

Check that the lid has been correctly positioned and properly cleaned.

6.2.3 - The product is not properly cutted:

Check the wear and tear of the knives.

6.2.4 - The product is expelled with difficulty or badly cutted:

Check that the expulsion palette is assembled with the DT (all the ranges); DF 1,2,3,4 and DQ 4 discs, that the tray is not full and that the opening is not obstructed.

6.2.5 - The machine jams:

Ensure that the product to be processed is not frozen or too hard and that the electrical current supplied is the same as that indicated by the technical-registration plate (Fig. n°19).

6.2.6 - The microswitch on the press lever and lid do not function: Check that they are not blocked by dirt or other particles.

6.2.7 - The machine does not switch on:

Check that all the safety devices are correctly positioned (Safety chapter 1.3); and that the supply plug and all the switches are inserted.

CAP.7 - CLEANING THE MACHINE

7.1 - GENERAL REMARKS

- The cleaning of the machine is an operation that should be performed at least once daily, if necessary, more frequently.
- All the parts of the vegetable cutter, that come into direct or indirect contact with the food to be processed, must be scrupulously cleaned.

Prior to performing any operation it is necessary to:

⇒Remove the plug from the supply network in order to completely isolate the machine from the rest of the installation.

Beware of the risk factor of cutting and /or sharpened edges during cleaning or manipulation of the discs.

7.2 - PRODUCTS TO BE USED - ATTENTION! -

The machine must be cleaned with normal detergents at room temperature, with the aid of a damp cloth. It must not be cleaned with water jets or utensils, brushes and other objects that may superficially damage the machine.

N.B. DO NOT PUT ANY OF THE COMPONENTS IN THE DISHWASHER.

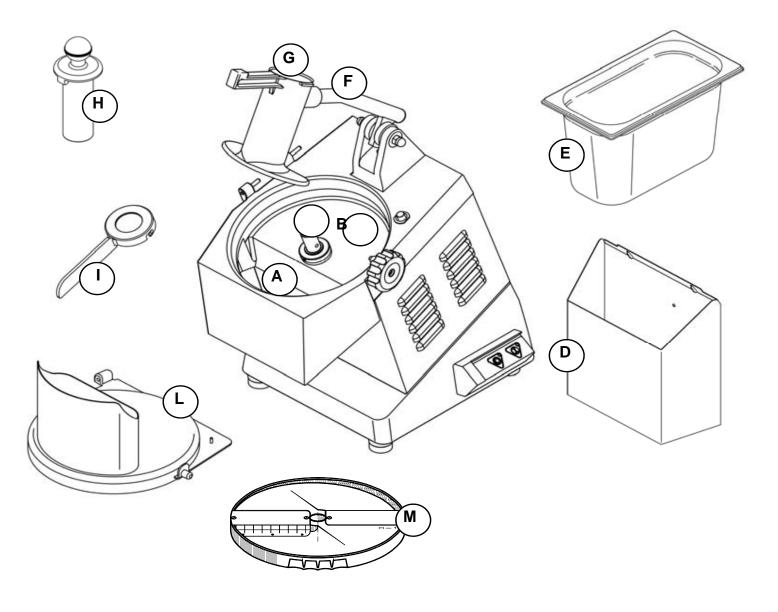
7.3 - PROCEDURE TO BE FOLLOWED:

Unplug the machine from its electrical supply.

Remove the cover and all the discs, the palette, the pestle, the tray and/or the slide.

Accurately clean inside to opening, the entire processing area and the supporting pivot for the discs.

Furthermore, clean all the external surfaces of the machine and pestle. Dry with a cloth and reassemble the machine.



- **A** Mouth
- B Processing area
- C Pivot
- **D** Slide
- **E** Tray
- F Press lever

- **G** Conductor
- H Pestle
- I Expulsor palette
- L Cover
- M Disc

Fig. n°28 - View of the machine dismantled for cleaning

CHAP.8 - DISMANTLING

8.1 - PUTTING THE MACHINE OUT OF ORDER

Should it be decided to put the machine out of order for some reason, make sure that it is useless to everybody:

⇒Remove and cut the electrical connections.

8.2 - WEEE Waste of Electric and Electronic Equipment



Directive 2002/95/EC, 2002/96/EC and 2003/108/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment, and waste electrical and electronic equipment

This symbol, crossed out wheelie bin, on the product or on its packaging indicates that this product must not be disposed of with your other household waste.

Separate waste collection of this appliance is organised and managed by the manufacturer. It is the user's responsibility to contact the manufacturer and follow the waste treatment system the manufacturer has adopted for separate waste collection.

The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

SERVICE CENTRE AUTHORISED DEALER