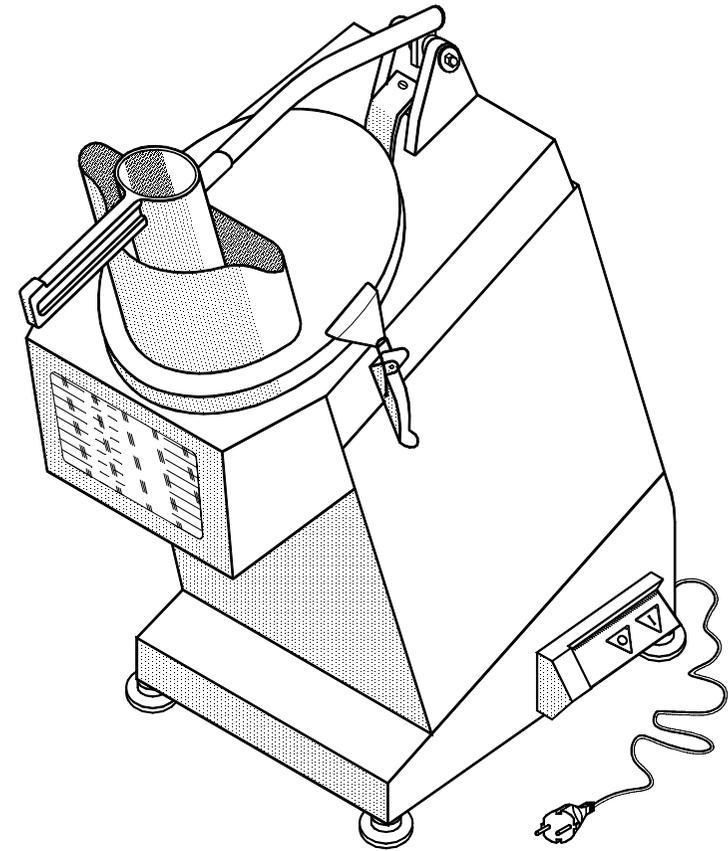


Fig. n°28 - View of the machine dismantled for cleaning



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 - DISPOSAL

Once the machine has been put out of order, the machine may be eliminated. For correct disposal, contact any Company specialising in this kind of service, paying attention to the material used for the various components (**see chap.1 par.2.2**).

VEGETABLE PROCESSOR
TM

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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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

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.

ATTENTION!

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.

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- 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.

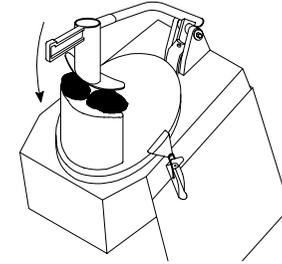


Fig. n°26 - Product loaded via opening of the lid.

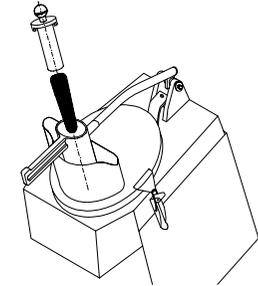


Fig. n°27 - Product loaded via conductor on the lever

- 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.

Case in which the expulsion palette must not be assembled

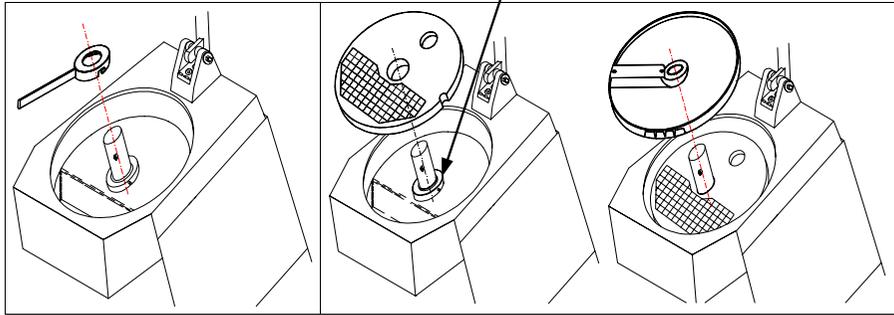


Fig. n°23

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

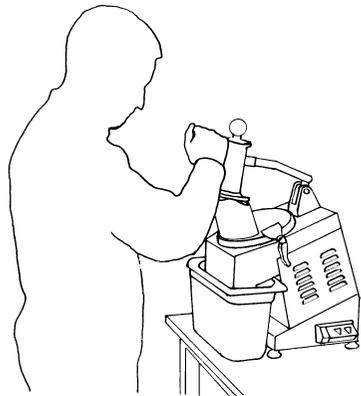


Fig. n°25 - Correct position

ATTENTION!

While the machine is operational one must be correctly positioned to avoid accidents. One's body must always be perpendicular to the processing surface (see Fig. n°25). **Do not position oneself so as to have direct contact between parts of one's 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° 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

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.
- 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.
- Periodically check the condition of the electrical lead, a worn lead or anyway one that is not intact represents serious danger of an electrical nature.
- 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

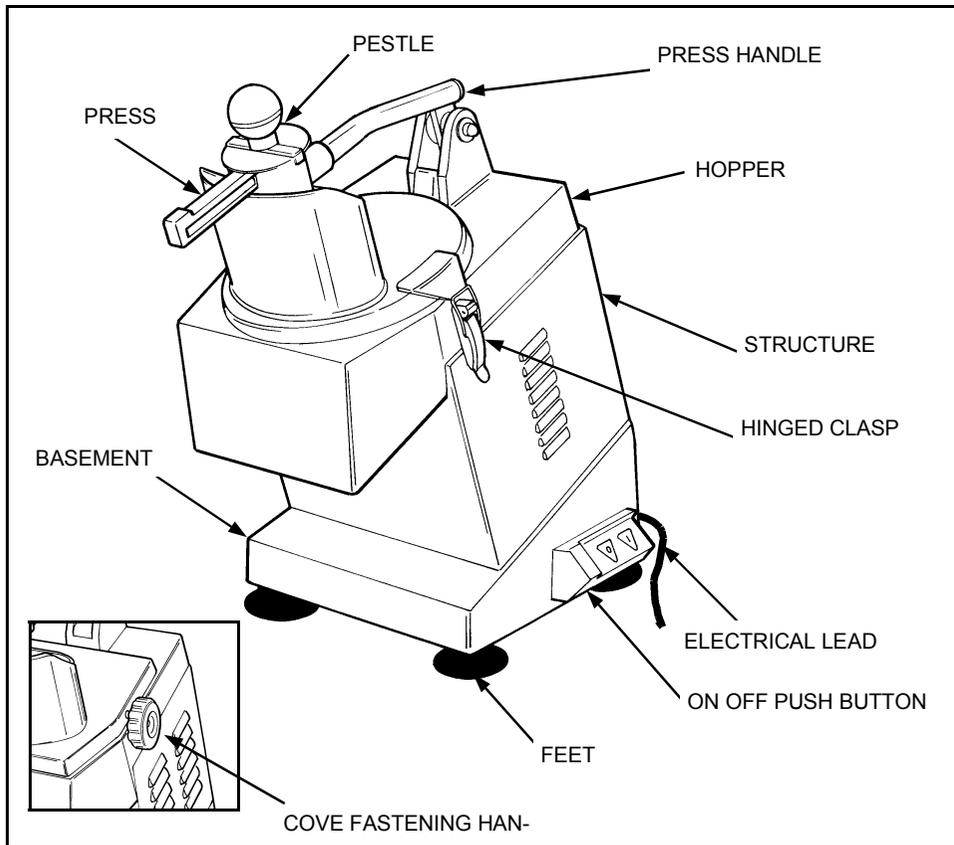


Fig. n°1 - General view of the Vegetable cutter mod. "TM"

1.2.1 - GENERAL DESCRIPTION

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.

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 "O" and check that the buttons start and stop the machine respectively (Fig. n°22).
- b) Check that the motor stops and subsequently starts when lifting and lowering the press lever.
- c) 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.

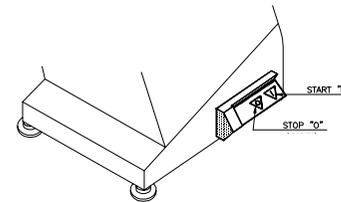


Fig. n°22 - ON/OFF switch

CHAP.5 - USE OF THE MACHINE

ATTENTION!

5.1 - DISC ASSEMBLY

- 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".

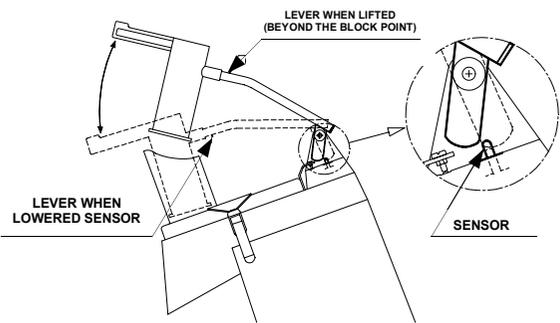


Fig. n°2 - Electrical safety device

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 **voluntary start** of the machine (pushing the "I" button) only once the cover is in the closed position, adequately clamped with the specific hinged clamps of the steel lid and handle of the aluminium lid (Fig.n°3)

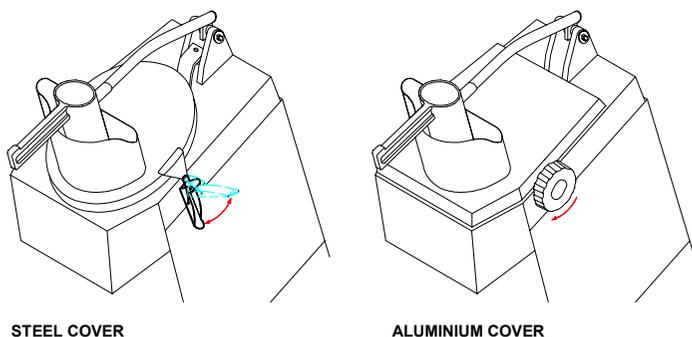


Fig. n°3 - Mechanical safety device

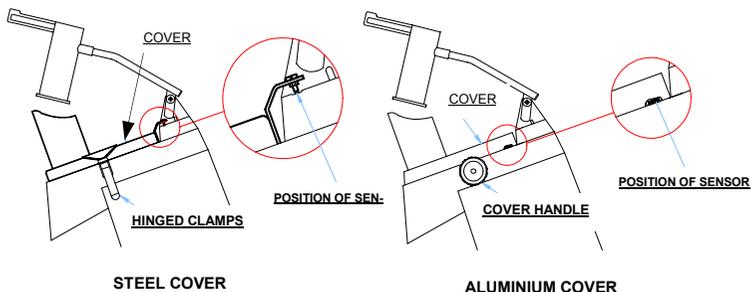


Fig. n°3A - Electrical safety device

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

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

Fig.n°19 -Technical-registration plate

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

The T.M. Vegetable cutter is supplied with an electrical lead of 5x1 mm² 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-magnetothermal 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 "I" (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 should be linked to a 400 V supply; for adjustment to a 230V threephase supply network, request the intervention of the "ASSISTANCE SERVICE".

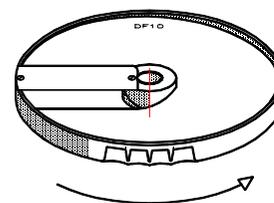
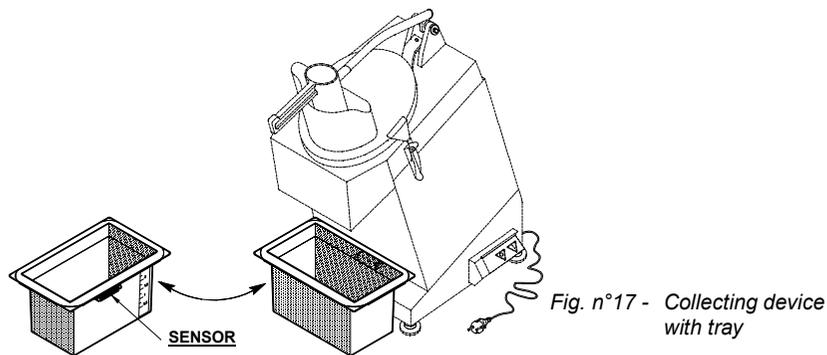


Fig. n°20 - Direction of disc rotation

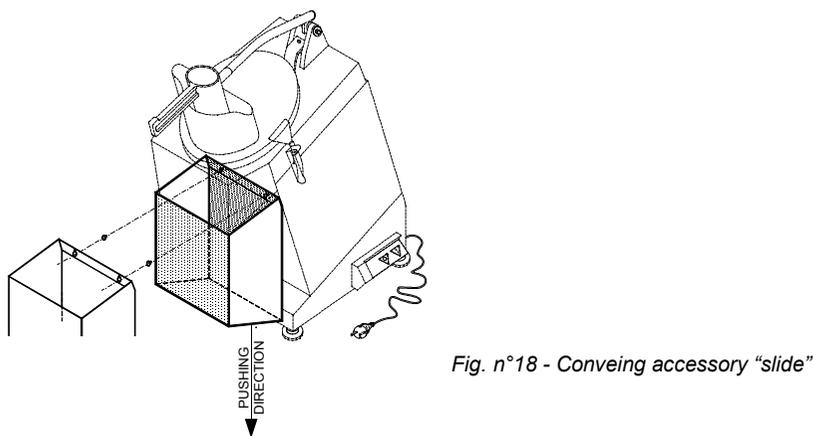


4.1.2 - CONVEYOR WITH "SLIDE"

Should the T.M. 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 them down until the slide is completely hooked in place.



4.2 - ELECTRICAL INSTALLATION

4.2.1 - T.M. MONOPHASE VEGETABLE CUTTER (220/230 Volt, 50 Hz)

The T.M. 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-magnetothermal switch.

Ensure that the earthing network is perfectly functional.

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 **voluntary start** of the machine (pushing the "I" button) only once the tray and slide are adequately positioned.

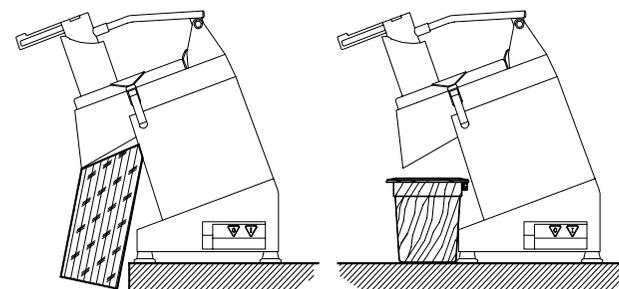
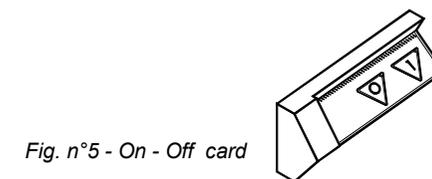


Fig. n°4 - Position of the slide or tray to allow for ignition

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

D an insulated IP 54 "O" (Fig. n°5).



E an insulated IP 34 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 T.M. 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 T.M. 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 polyethylene facilitates cutting the product, introduced via the conductor positioned on the press, in small pieces (Fig.n°6)

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

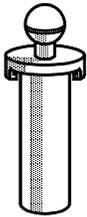


Fig. n°6 - Vegetable-pressing pestle

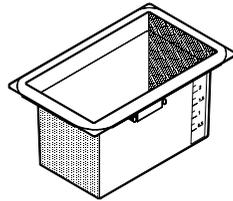


Fig. n°7 - Tray with magnetic sensor

1.4.1.2 - NON-STANDARD ACCESSORIES

Slide: 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).

Trays: in non-toxic polyethylene in the “GASTRONORM” DIMENSION OF 1/2, H=150 This too is endowed with a magnetic sensor.

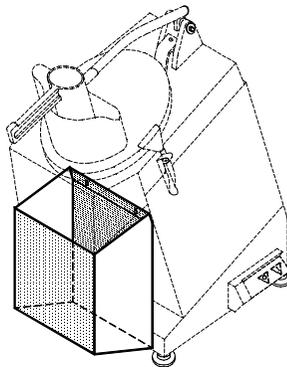


Fig. n°8 - Product conveying slide

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)

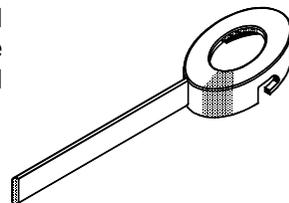


Fig. n°9 - Expulsion palette

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 packaging 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 T.M. 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).

CAP. 3 - RECEIVING THE MACHINE

3.1 - CONSIGNMENT OF THE MACHINE (see Fig. n°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) discs;
- g) this manual;
- h) certificate of conformity **CE**.

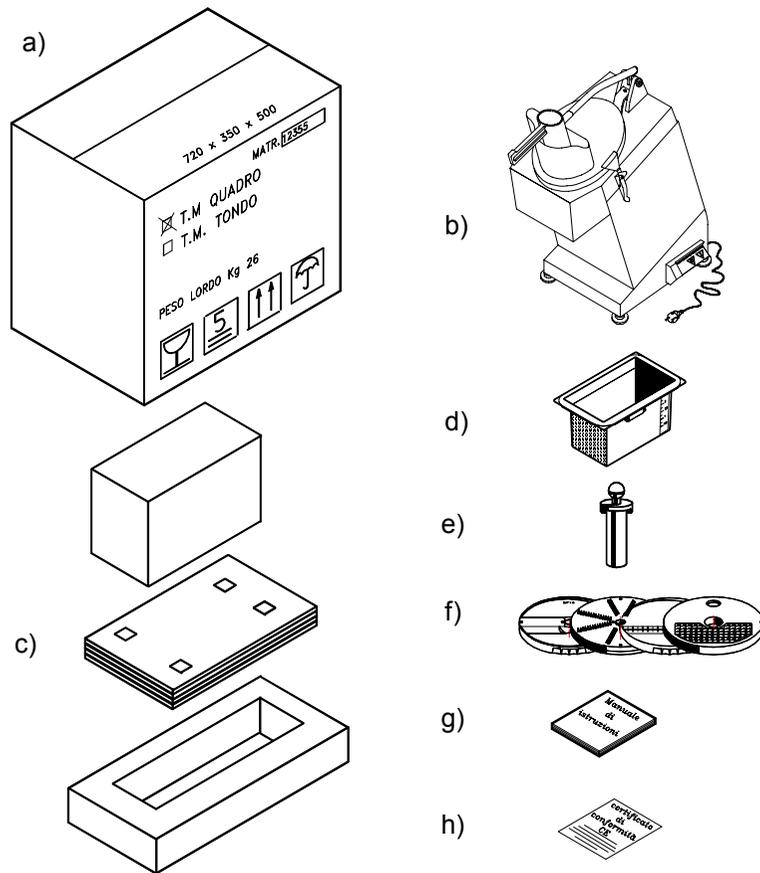


Fig. n°16 - Description of the packing

Disc holder: in non-toxic plastic-coated steel it is useful for collecting the discs, it is also suitable for washing the discs in a dishwasher (Fig.n°10).

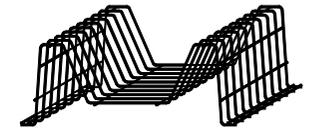


Fig. n°10 - Disc shaft

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

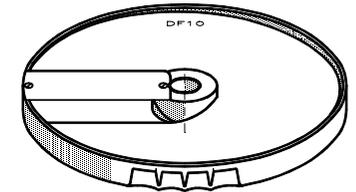


Fig. n°11 - "DF" type utensil

- DISCS FOR SHREDDING "DT":

They have a plastic 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

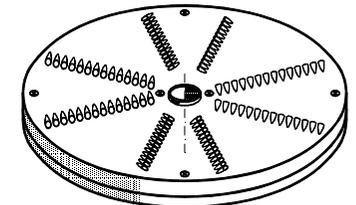


Fig. n°12 - "DT" type utensil

- DISCS FOR CUTTING IN STICKS "DQ":

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

The following discs are available:

- DQ4
- DQ6
- DQ8
- DQ10

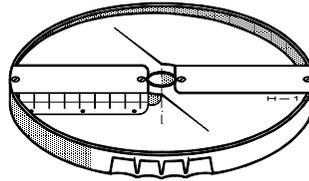


Fig. n°13 - "DQ" type utensil

- DISCS FOR CUTTING IN CUBES "PS":

They have an aluminium supporting structure with AISI steel knives.

The following discs are available:

- PS8 coupled with DF8
- PS10 coupled with DF10
- PS20 coupled with DF14

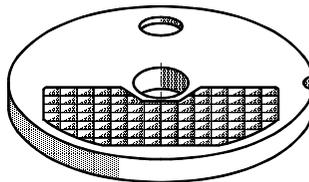
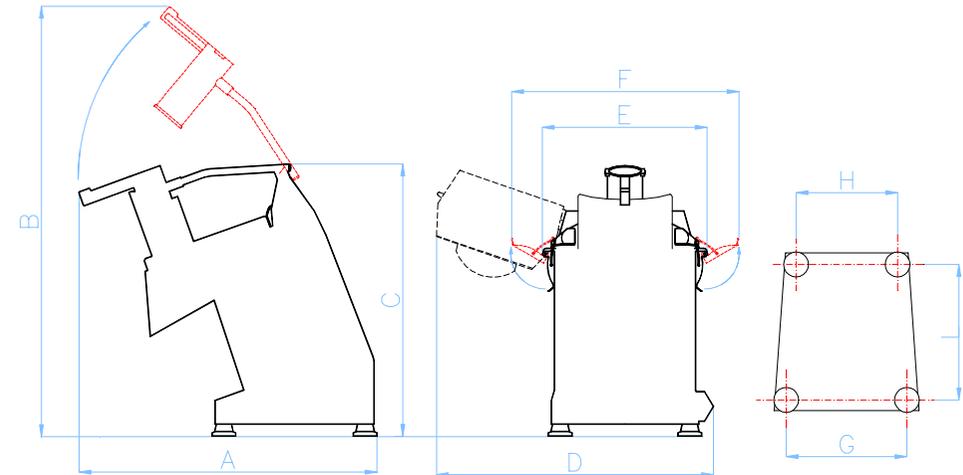


Fig. n°14 - "PS" type utensil

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	Mn Tf	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
RPM rotations	g/min.	300	300
Feet position G x H x I	mm	225 x 180 x 255	225 x 180 x 255
Dimensions	mm	510 x 280 x 460 (A x E x C)	510 x 280 x 460 (A x E x C)
Max dim.	mm	510 x 400 x 790 (A x F x B)	510 x 535 x 790 (A x D x B)
Packing dim.	mm	720 x 350 x 500	720 x 350 x 500
Nett weight	kg	20	23
Gross weight	kg	24	26
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.**