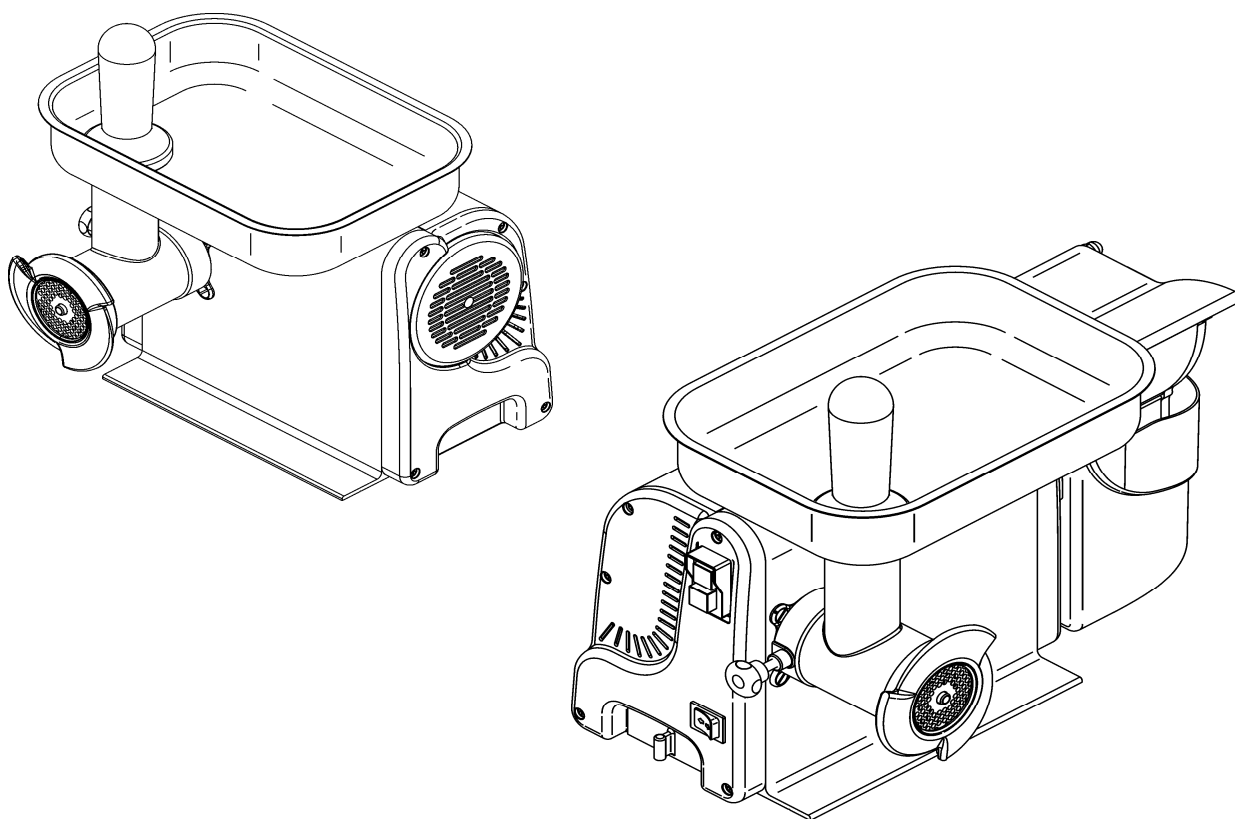


OPERATING AND MAINTENANCE MANUAL



Ed. 05/2018

**TC 8-12 INGR. CE TCG 8-12
INGR. CE**

INTRODUCTION

This manual is meant to provide customers with 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 the long term .

This manual is to be used by qualified and skilled people well informed about the use of the machine and its periodical maintenance.

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CHAP. 1 - INFORMATION ON THE MACHINE

1.1 - GENERAL PRECAUTIONS

- The machine must be operated only by highly qualified people who are fully aware of the safety measures described in this manual.
- In case of a personnel turn over, training is to be provided in advance.
- Before starting cleaning and maintenance operations, disconnect the plug from the supply socket.
- Assess the residual risks carefully to carry out cleaning and maintenance.
- Cleaning and maintenance require great concentration.
- A regular control of the electric supply cord is absolutely necessary; a worn-out or damage cord is very dangerous.
- 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 2006/42**.

The safety protections are (see 1.3.3):

- lever on the grater;
- feeding neck on meat grinder;
- pounder on meat grinder.

1.2.2 - electrical safeties

The electrical safety devices installed on the machine, described in this manual, comply with **EC 2006/95** and **2004/108**. The machine is equipped with:

- micro magnets that stops the machine if the pushing lever is openened (*see FIG. n°1*), and do not permit to start the machine if the pushing lever is not closed;
- micro magnets on the collecting cup;
- relay on the control circuit, in case of power supply missing,. It is necessary to restart the machine.

Even though the TC/TCG Ingr. are provided with electrical and mechanical protections (when the machine is working and for maintenance and cleaning operations), there are still **RESIDUAL RISKS** that cannot be eliminated completely,

these risks are mentioned in this manual under **WARNING**.

These risks are scalds caused by the loading and unloading of the product, or other kind of injuries due to the maintenance operations.

1.3 - DESCRIPTION OF THE MACHINE

1.3.1 - General description

Our firm has designed and manufactured the TC/TCG Ingr. to chop meat and grate foodstuffs as cheese and to guarantee:

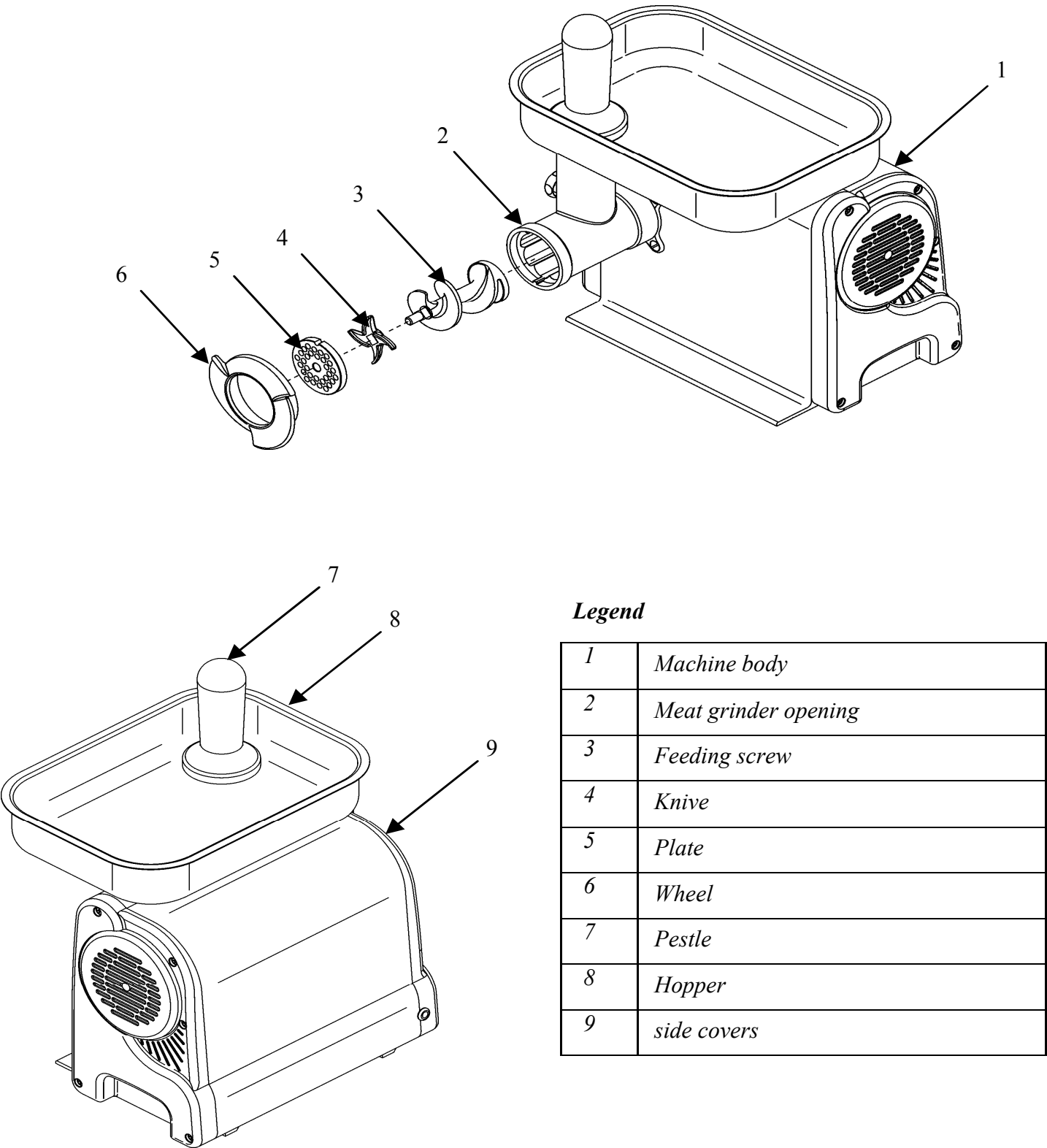
- the highest degree of safety in functioning, cleaning and maintenance;
- the highest hygienic standard due to an accurate choice of materials which come into contact with the foodstuffs, elimination of the corners in the parts of the machine that enters into contact with the foodstuffs, so as to obtain an easy and perfect cleaning, as well as an easier disassembly
- solidity and stability of all the elements;
- great handiness.

1.3.2 - technical features

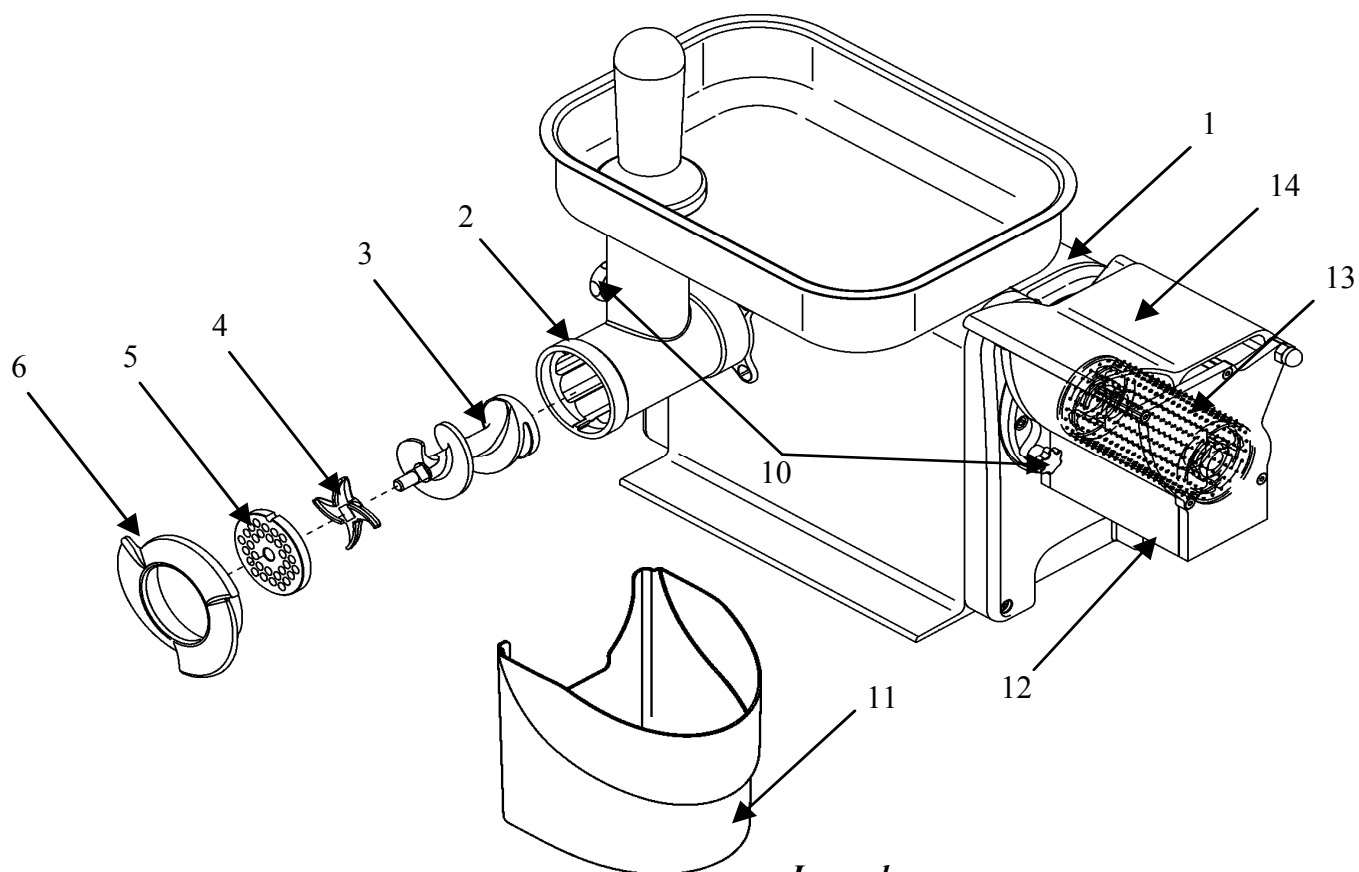
The professional TC/TCG Ingr. CE has been manufactured with the following materials:

- body of the machine made of anodised extruded aluminium;
- Side ABS covers;
- Aluminium pressure die-casting meat grinder head, extruded aluminium grater head. These finishings are food-safe and guarantee high resistance against acids and oxidation;
- stainless steel grating roller;
- knife, meat grinder plate and stainless steel hopper;
- collecting cup made of PS thermoformed polystyrene for food products;
- polyethylene meat pestle.

1.3.3 - machine components *FIG. n°1*
- General view of TC

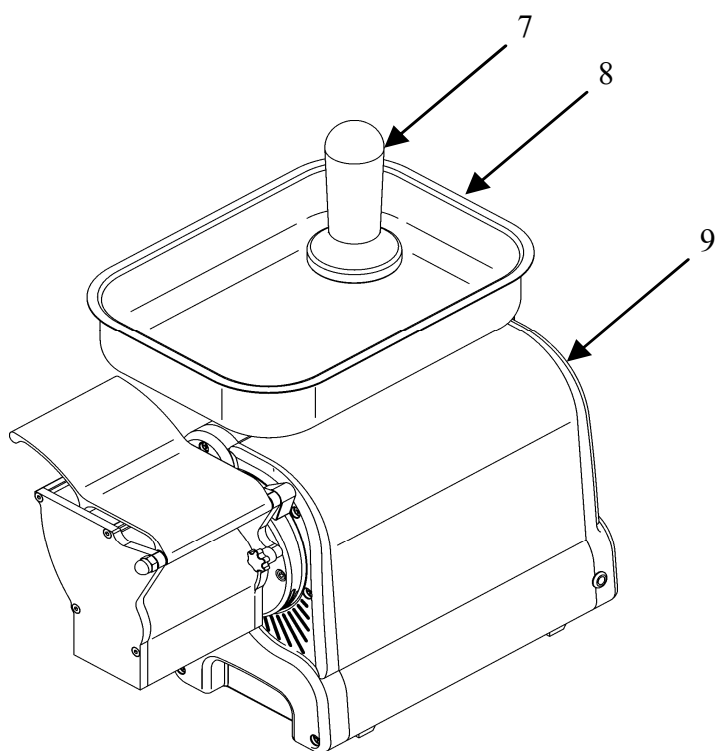


1.3.4 - machine components *FIG. n°1 -
General view of TCG*



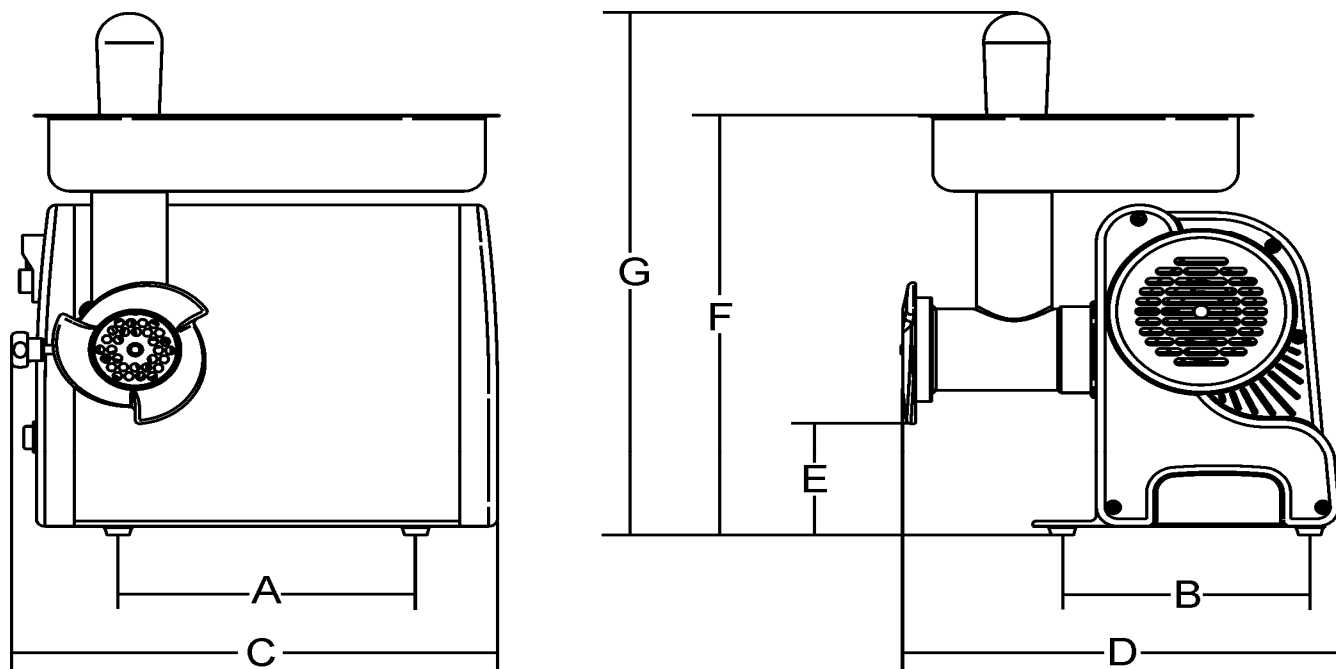
Legend

1	<i>Machine body</i>
2	<i>Meat grinder opening</i>
3	<i>Feeding screw</i>
4	<i>Knife</i>
5	<i>Plate</i>
6	<i>Wheel</i>
7	<i>Pestle</i>
8	<i>Hopper</i>
9	<i>side covers</i>
10	<i>Knob to fix the openings</i>
11	<i>Collecting cup</i>
12	<i>Grater opening</i>
13	<i>Grating roller</i>
14	<i>Pushin lever of the grater</i>



CHAP. 2 - TECHNICAL DATA

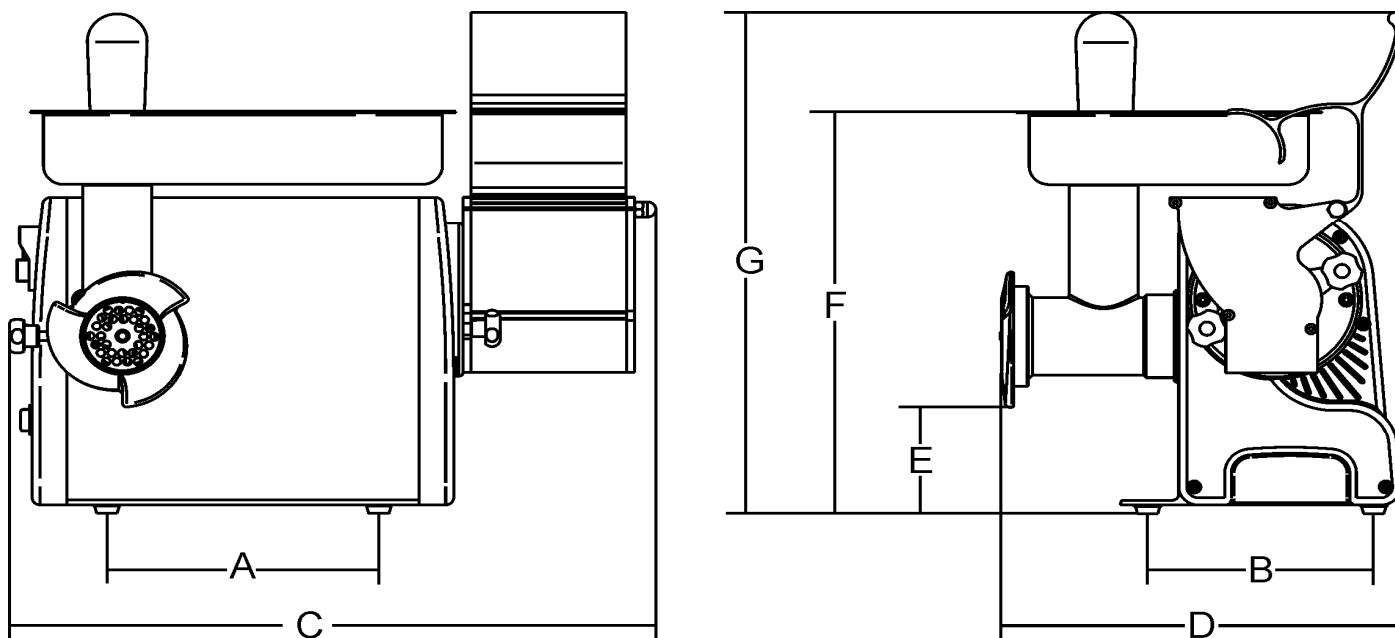
2.1 -OVERALL DIMENSIONS, WEIGHT, CHARACTERISTICS ... FIG. n°2a - Overall dimensions drawings TC



TAB. n°1 - OVERALL DIMENSIONS AND TECHNICAL FEATURES

Model	<i>u.m.</i>	TC 8 Ingr.	TC 12 Ingr.
A x B	<i>mm</i>	205x170	275x190
C x D x F	<i>mm</i>	335x300x360	377x366x375
E G	<i>mm</i>	85 410	100 452
Output/h. TC	<i>Kg/h.</i>	70	85
Motor	<i>watt/Hp</i>	250 / 0,34	550/0,75
Power source		230V / 50Hz	230V/50Hz
Standard plate	<i>mm ø</i>	6	6
Net weight	<i>Kg</i>	10	15
Protection	<i>IP</i>	X3	X3
Degree of noise	<i>dB</i>	≤ 70	≤ 70

FIG. n°2b - Overall dimensions drawings TCG



TAB. n°2 - OVERALL DIMENSIONS AND TECHNICAL FEATURES

Model	<i>u.m.</i>	TCG 8 Ingr.	TCG 12 Ingr.
A x B	<i>mm</i>	205x170	275x190
C x D x F	<i>mm</i>	486x300x360	520x366x374
E G	<i>mm</i>	85 420	100 452
Output/h. TC	<i>Kg/h.</i>	70	85
Motor	<i>watt/Hp</i>	250 / 0,34	550/0,75
Power source		230V / 50Hz	230V/50Hz
Standard plate	<i>mm ø</i>	6	6
Net weight	<i>Kg</i>	14	19
Protection	<i>IP</i>	X3	X3
Degree of noise	<i>dB</i>	≤ 70	≤ 70

WARNING: The electrical characteristics for which the appliance is designed are indicated on the reference plate applied on the side of the machine; before connecting to power supply, see paragraph 4.2 electrical connections.

CHAP. 3 - THE ARRIVAL OF THE MACHINE

3.1 - DESPATCH OF THE MACHINE (see FIG. n°3)

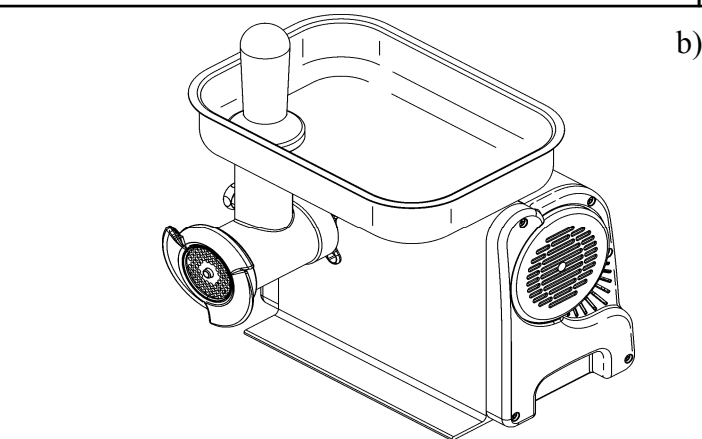
The TC/TCG Ingr. is accurately packed and then despatched from our warehouse. The package includes:

TC INGR.

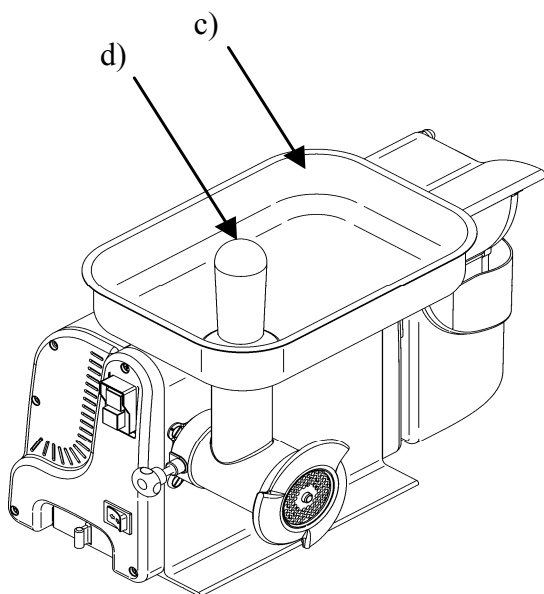
- a) a strong cardboard box + protections;
- b) the machine;
- e) this manual;
- f) EC conformity declaration.

TCG INGR.

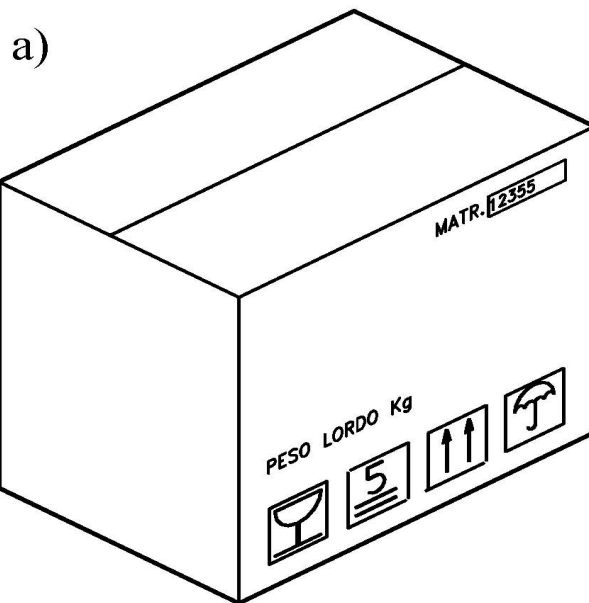
- a) a strong cardboard box + protections;
- b) the machine;
- c) the hopper
- d) the pestle
- e) this manual;
- f) EC conformity declaration.



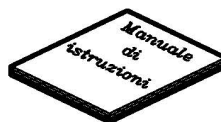
TC Ingr.



TCG Ingr.



e)



f)



FIG. n°3 - Description of the package

3.2 - PACKAGE CHECK UPON 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. 1-2*, 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 4.2.1 - TC/

TCG Ingr. with 1ph motor

The appliance is equipped with a power supply cord which section 3x1.5mm², 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 - Rated plate - serial number

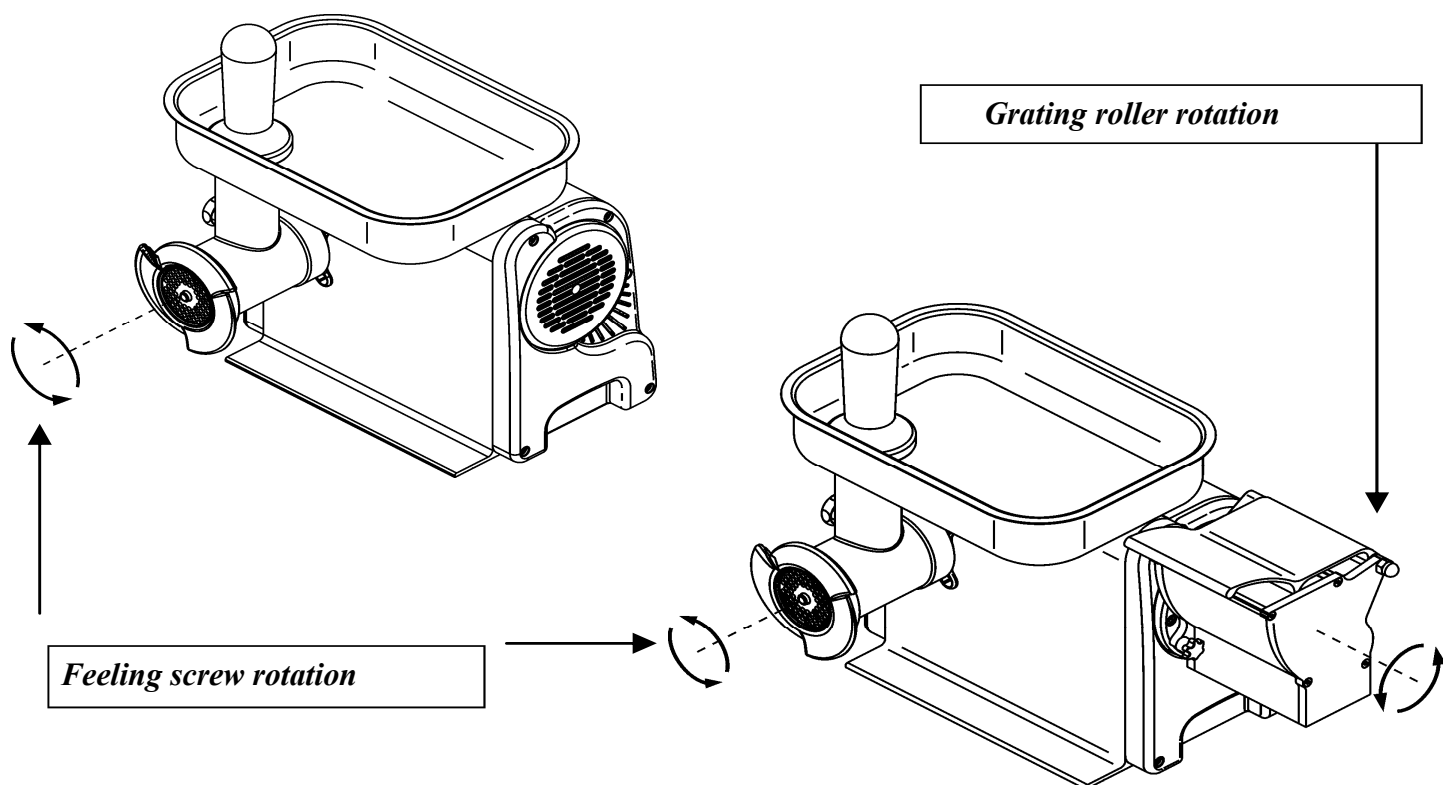


FIG. n°5 - Rotation sense of the feeding screw and of the grating roller

4.3 - ELECTRICAL CIRCUIT DIAGRAMS 4.3.1 - TC 1ph electrical circuit diagram

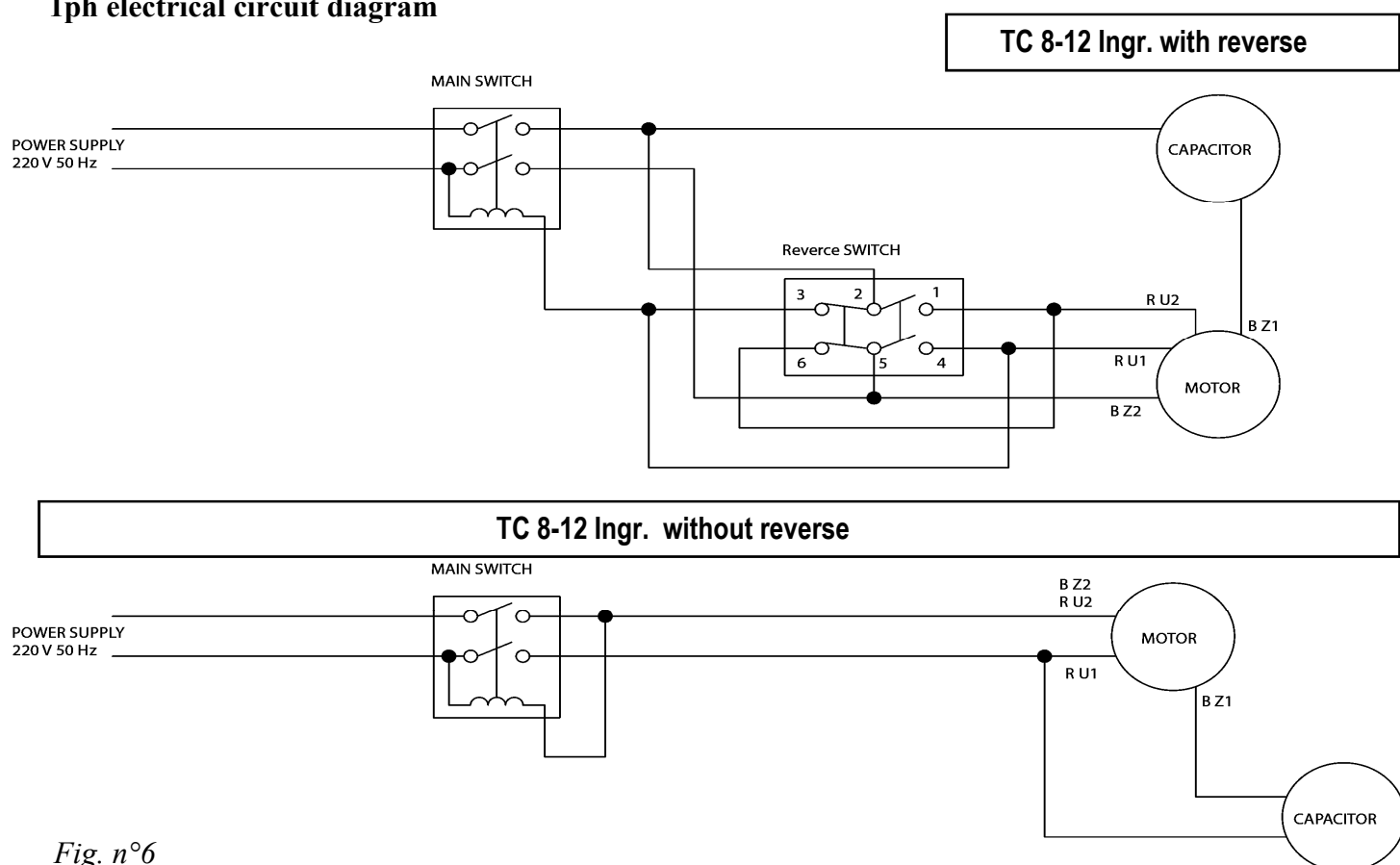


Fig. n°6

4.3.2 - TCG 1ph electrical circuit diagram

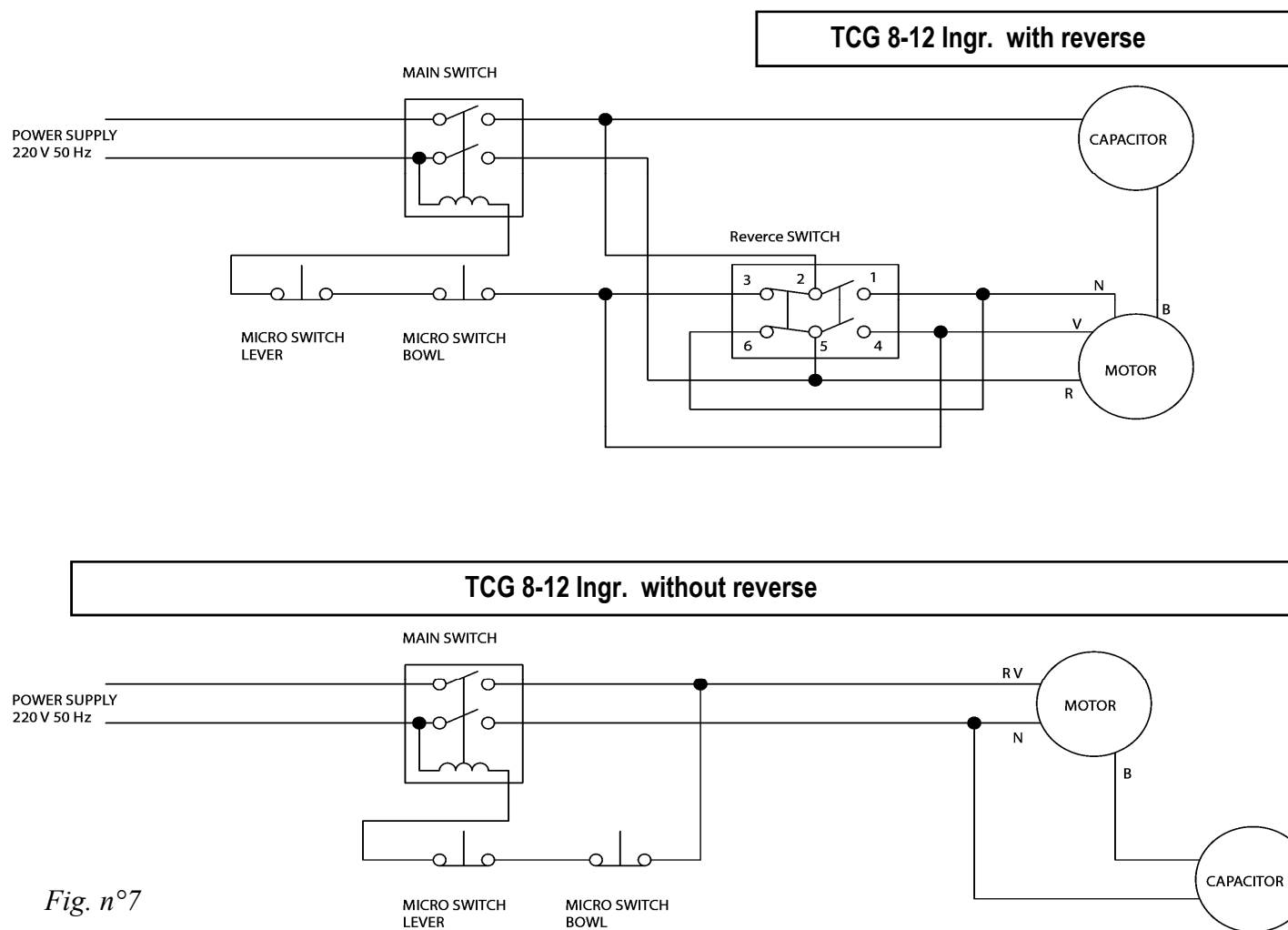


Fig. n°7

4.4 - FUNCTIONING CHECK

N.B. Do not let the machine function without product; during the functioning of the grater, unscrew the wheel of the meat grinder, so as the feeding screw, the plate and the knife do not rotate without product .

To check the correct functioning of the machine, follow this procedure:

1. Turn ON push-button “I” (*ref. 2 - FIG. n°8*) and stop push-button “0” (*ref. 2 - FIG. n°8*);
2. Check if by pressing push-button “I” (*ref. 1 - FIG. n°8*) the rotation sense of the grating roller is reverse.

CHAP. 5 - MACHINE USE

5.1 - CONTROLS

The controls are placed on the body of the machine as indicated in the figure below.

1. Push-button to invert the rotation sense “I” (it functions when pressed).
2. ON/OFF push-button “I/0”.

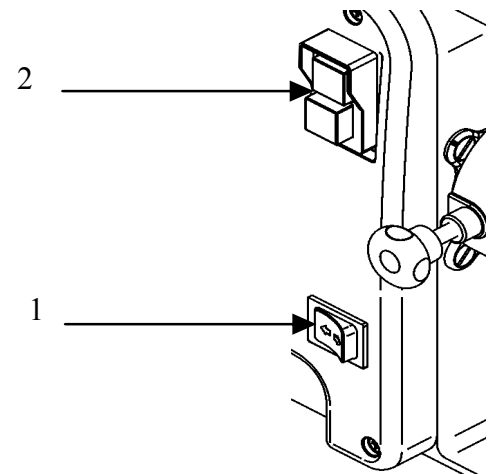


FIG. n°8 - Controls position

5.2 - LOADING OF THE PRODUCT

NB: Before starting any work, make sure the grater and meat grinder openings are well fixed by means of the two lateral knobs.

Place yourself in a correct position so as to avoid contacts with the moving elements: the body must be perpendicular to the working table (*see FIG. n°9*).

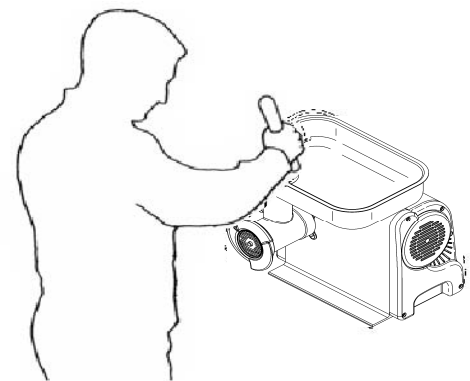


FIG. n°9 - Correct position

Loading of the product in the meat grinder (see FIG. n°1a) Proceed as follows:

1. Never introduce hands in the opening of the machine when it is functioning, but use the pestle.
2. For the meat grinder, the product must be loaded when the machine is on;
3. Place the product in the hopper (8) and then turn on the machine with push-button “I” (*ref. 2 - FIG. n°8*);
4. Lift the pestle (7) and introduce the product in the opening; use the pestle only to help the introduction of meat into the opening without forcing;
5. For the long life of the plate and the knife, and to obtain the best cut:
 - turn off the machine as soon as the meat stops to come out;
 - always keep plate and knife together;
 - avoid tightening the wheel excessively (*ref. 6 - FIG. n°1*).
6. At the end of the cutting work, stop the machine by pressing on the stop push-button “0” (*see FIG. n°8*), then disassemble and clean accurately the opening and all the other elements (*see FIG. n°1*).
7. In case of jamming or difficulties of grinding, turn off the machine and pulse on inverting push-button “I” (*ref. 1 - FIG. n°8*); then restart the machine with push-button start “I” (*ref. 2 - FIG. n°8*).

Loading of the product in the grater (see FIG. n°1b) Proceed as follows:

1. **WARNING:** never introduce your hands in the opening of the grater when it is functioning, but stop the machine carefully to avoid any undesirable contact with the grating roller.
2. The grater must be loaded when the motor is OFF;
3. Lift the grating lever (14) and place the product on the opening of the grater lock-ing it with the lever of the grater. The quantity of product introduced in the open-ing has to permit the closing of the lever. Make sure that the collecting cup (11) is placed correctly (it must be inserted completely until it touches the body of the machine) so as to permit the reaction of the micro and the starting of the machine.
4. **N.B. If the lever is not closed correctly or if the collecting cup is not placed correctly, the machine does not function .**
5. Press push-button “I” to start the machine (*ref. 2 -FIG. n°8*);
6. At the end of the work, stop the machine by pressing the stop push-button “0” (*see FIG. n°8*), then disassemble and clean accurately the opening and all the elements (*see par. 6.2*).
In case of jamming or locking of the roller, stop the machine and pulse with the inverting push-button “I” (*ref. 1 -FIG. n°8*); Then restart the machine by pressing push-button “I” (*rif. 2 - FIG. n°8*).
- 7.

CHAP. 6 - GENERAL CLEANING

6.1 - INTRODUCTION

- The cleaning of the machine is an operation that has to be performed at least once a day and, if necessary more often.
- All the machine parts, that are in contact with the product, must be cleaned accurately .
- Never clean the machine by means of compressed water or water jets, but with water and neutral detergent.
- Do not use brushes or others tools that could damage the machine.

WARNING: Before performing any cleaning operation, disconnect the machine plug from the mains to insulate it from the rest of the system.

Pay attention to the residual risks due to cutting and/or sharp parts of the machine

WARNING!

DO NOT PUT ANY OF THE COMPONENTS IN THE DISHWASHER.

6.2 - HOW TO CLEAN THE MACHINE

N.B. The machine can be disassembled completely (*see FIG.n°10*)

6.2.1 - cleaning the machine (Fig. 10a-b)

Proceed as follows:

- make sure you have disconnected the machine's power plug from its mains supply
- remove the pestle (6) and hopper (7)
- slacken off the handwheel (1)
- undo the knob securing the inlet (5)
- grasp the grinder inlet (11) and remove it from the machine with all its internal parts
- completely undo the handwheel (1), remove the plate (2) and blade (3) **DANGER OF CUTTING THE HANDS**, and extract the feed screw (4).

Now wash all parts with neutral detergent and rinse them abundantly with water. - Dry all parts with care.

6.2.2 - reassembly after cleaning (Fig. 10a-b)

Proceed as follows:

- make sure you have disconnected the machine's power plug from its mains supply
- first position the grinder inlet (11)
- screw the knob securing the inlet (5) on and tighten it down
- insert the feed screw (4) while holding it by the blade shaft only (4A). **Make sure it engages with the drive system**
- insert the blade (3) with its sharp edge outermost
- insert the plate (2) with its hub outermost (as applicable). Make sure the cavity in the plate fits onto the inlet's pawl, so that the plate does not rotate
- screw the handwheel (1) on and tighten it down.

6.2.3 - cleaning of the opening of the grater (*see FIG. n°10b*)

WARNING: The grating roller can cause injuries if it enters in contact with unprotected parts of the body, use appropriate gloves to handle metallic objects.

Proceed as follows:

- remove the collecting cup (10);
- unscrew the two lateral fixing knobs (8) of the opening, supporting it with a hand;
- then extract slowly the grating element (9), paying the maximum attention to the extraction of the roller .
- Pay the maximum **ATTENTION** not to touch the grating roller.

At this stage all the elements of the grater can be washed with neutral detergent and abundantly rinsed with warm water, then dried for the assembly.

6.2.4 - Cleaning of the body of the machine (*see FIG. n°10*)

The body of the machine, at work, can be performed with neutral detergent and a wet cloth and abundantly rinsed with warm water.

At the end dry accurately all the elements and reassemble them.

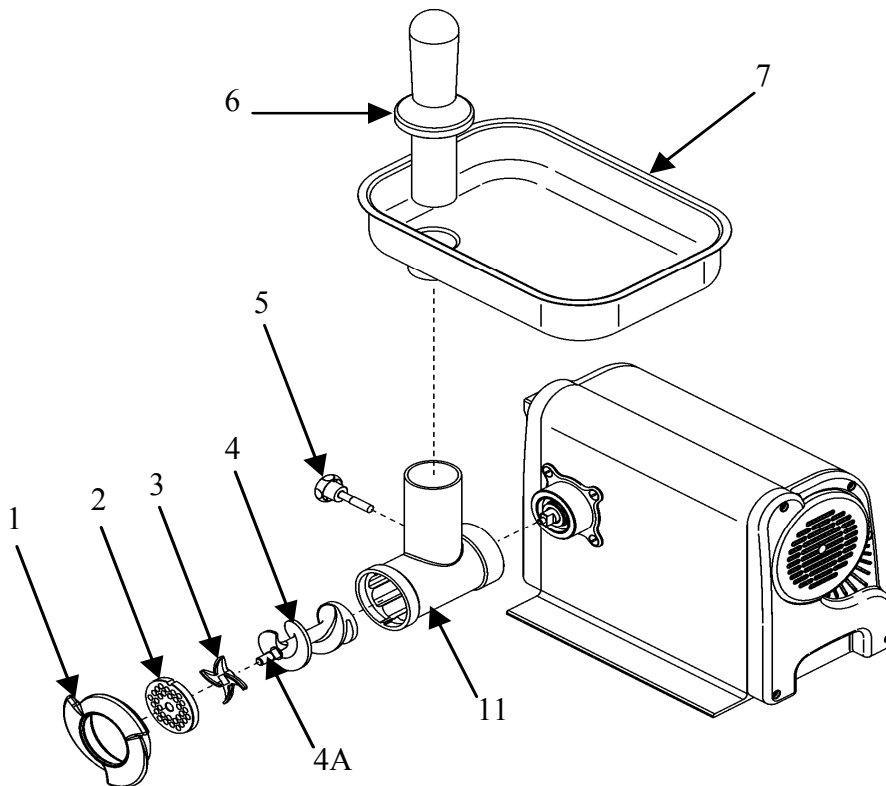


Fig. n°10a - Disassembly components of TC

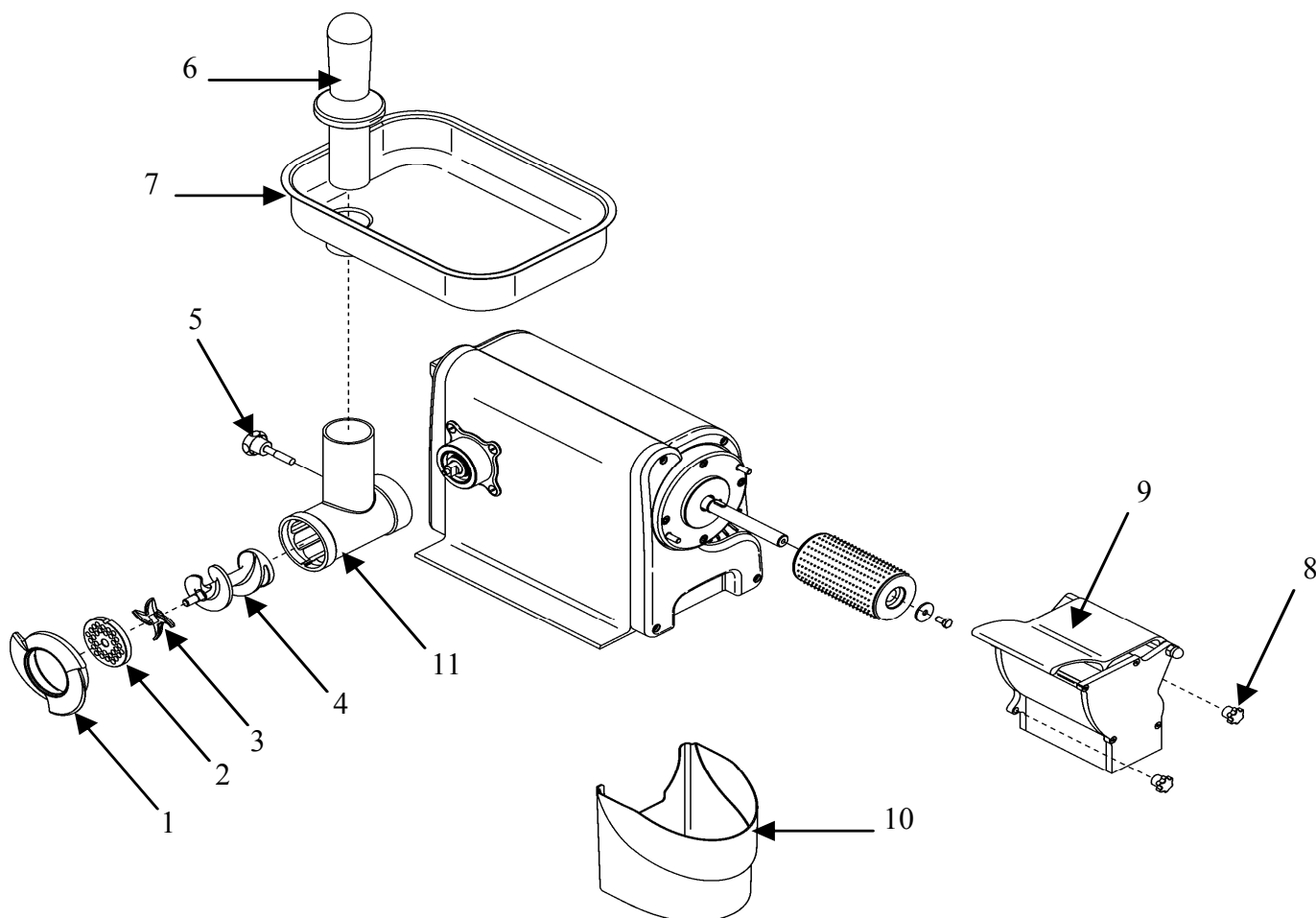


Fig. n°10b - Disassembly components of TCG

CHAP. 7 - MAINTENANCE

7.1 -GENERAL FEATURES

Before performing any maintenance operations, it is necessary to disconnect the plug from the socket to insulate completely the machine from the rest of the system.

7.2 -FEET

Feet may deteriorate or lose their elasticity, thus reducing the stability of the machine. In this case, please call the “SERVICE CENTRE” to have it repair.

7.3 - 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.

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 - 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 wheeled 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.

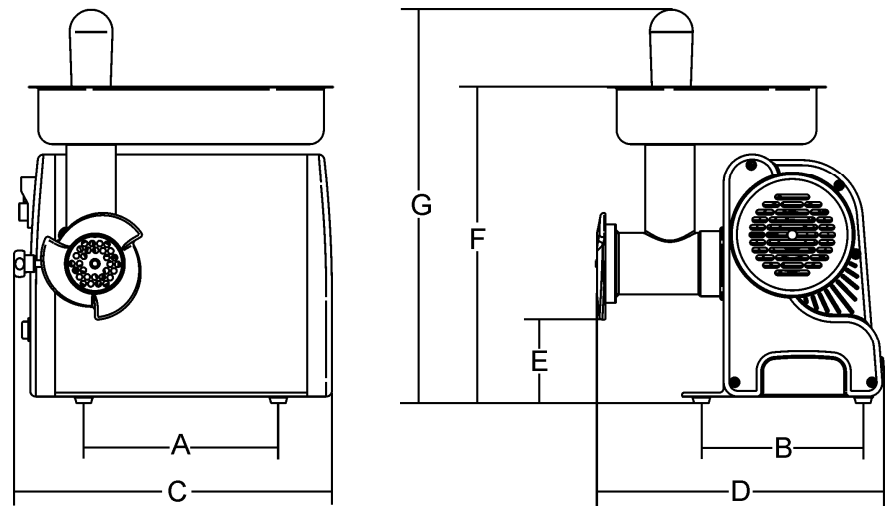
The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

SERVICE CENTER AUTHORIZED DEALER

CHAP. 2 - TECHNICAL DATA

2.1 -OVERALL DIMENSIONS, WEIGHT, CHARACTERISTICS ...

FIG. n°2a - Overall dimensions drawings TC



TAB. n°1 - OVERALL DIMENSIONS AND TECHNICAL FEATURES

Model	u.m.	TC 8 Ingr.	TC 12 Ingr.
A x B	mm	205x170	275x190
C x D x F	mm	335x300x360	377x366x375
E G	mm	85 410	100 452
Output/h. TC	Kg/h.	70	85
Motor	watt/HP	250 / 0,34	550/0,75
Power source		230V / 50Hz	230V/50Hz
Standard plate	mm ø	6	6
Net weight	Kg	10	15
Protection	IP	X3	X3
Degree of noise	dB	≤ 70	≤ 70

4.3.2 - TCG 1ph electrical circuit diagram

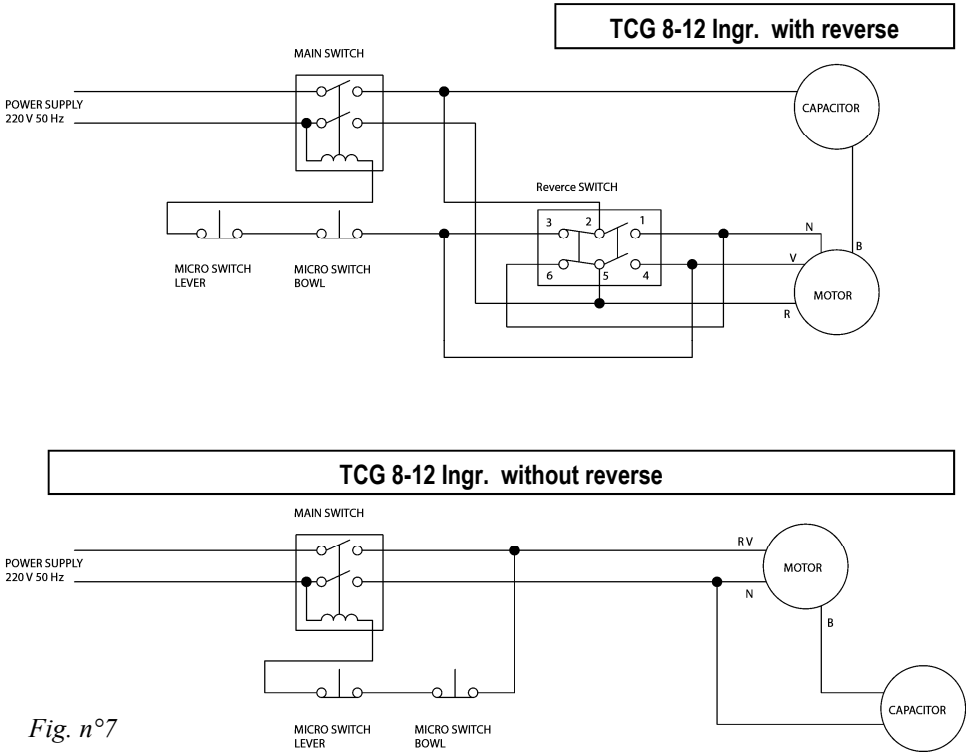


Fig. n°7

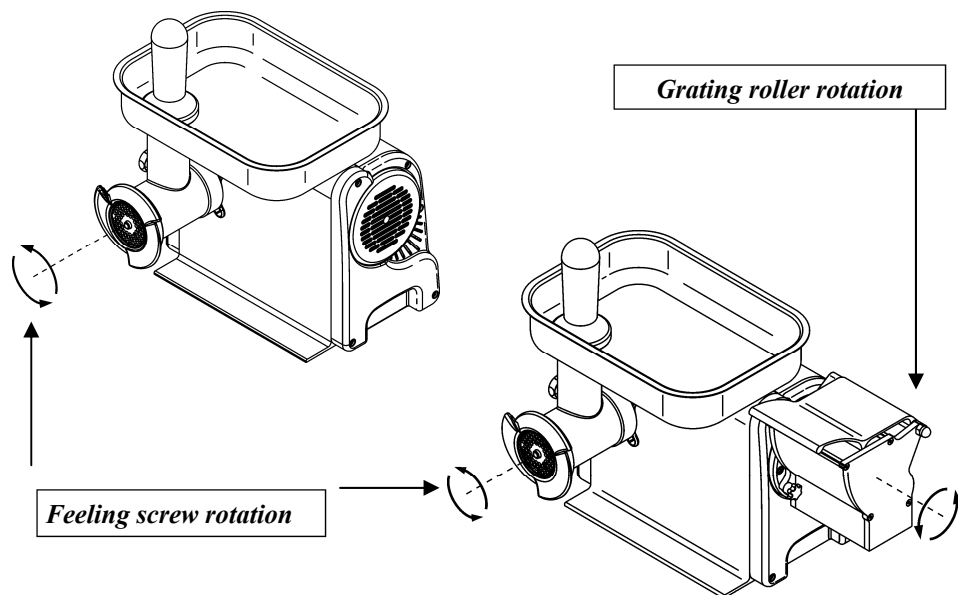


FIG. n°5 - Rotation sense of the feeding screw and of the grating roller

4.3 - ELECTRICAL CIRCUIT DIAGRAMS

4.3.1 - TC 1ph electrical circuit diagram

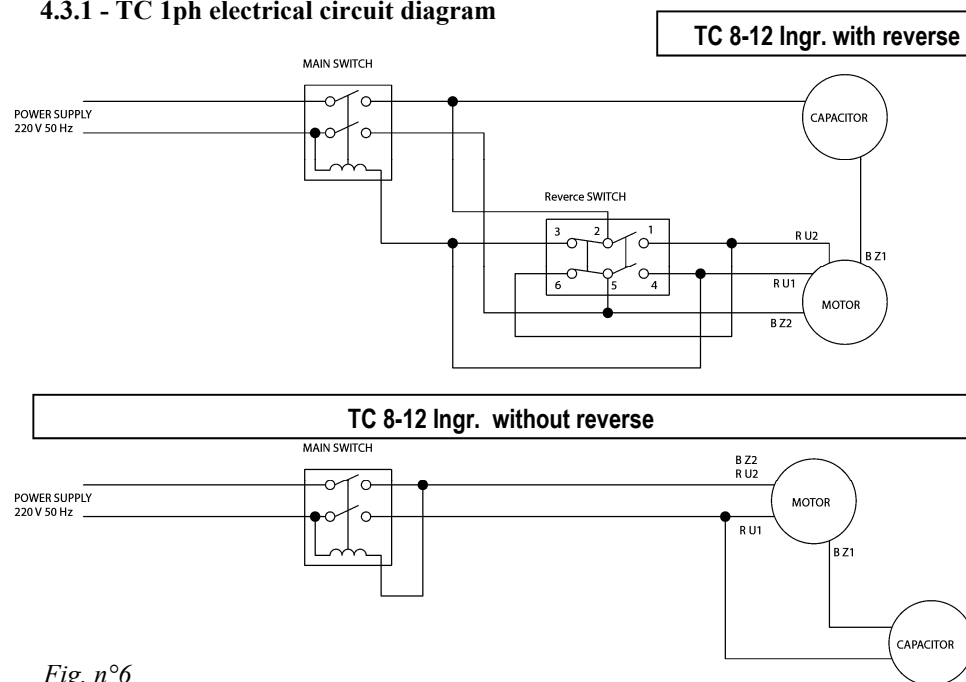
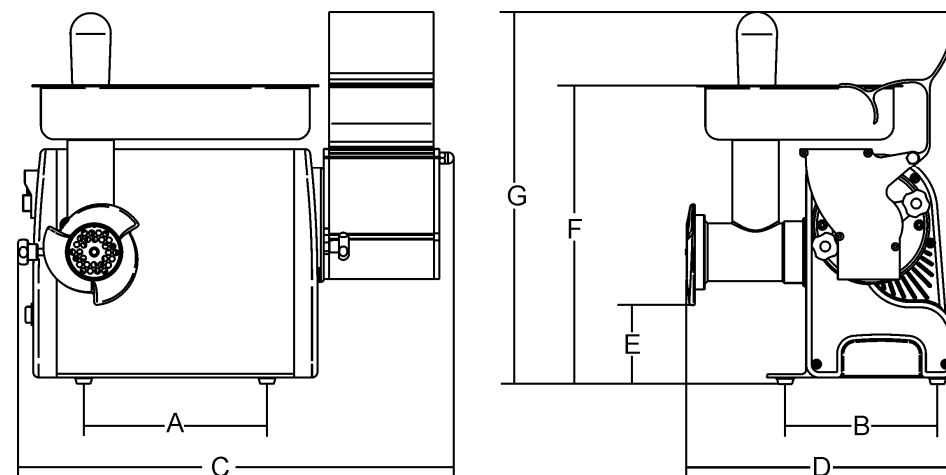


Fig. n°6

FIG. n°2b - Overall dimensions drawings TCG



TAB. n°2 - OVERALL DIMENSIONS AND TECHNICAL FEATURES

Model	u.m.	TCG 8 Ingr.	TCG 12 Ingr.
A x B	mm	205x170	275x190
C x D x F	mm	486x300x360	520x366x374
E G	mm	85 420	100 452
Output/h. TC	Kg/h.	70	85
Motor	watt/HP	250 / 0,34	550/0,75
Power source		230V / 50Hz	230V/50Hz
Standard plate	mm ø	6	6
Net weight	Kg	14	19
Protection	IP	X3	X3
Degree of noise	dB	≤ 70	≤ 70

WARNING: The electrical characteristics for which the appliance is designed are indicated on the reference plate applied on the side of the machine; before connecting to power supply, see paragraph 4.2 electrical connections.

CHAP. 3 - THE ARRIVAL OF THE MACHINE

3.1 - DESPATCH OF THE MACHINE (see FIG. n°3)

The TC/TCG Ingr. is accurately packed and then despatched from our warehouse.
The package includes:

TC INGR.

- a) a strong cardboard box + protections;
- b) the machine;
- c) this manual;
- f) EC conformity declaration.

TCG INGR.

- a) a strong cardboard box + protections;
- b) the machine;
- c) the hopper
- d) the pestle
- e) this manual;
- f) EC conformity declaration.

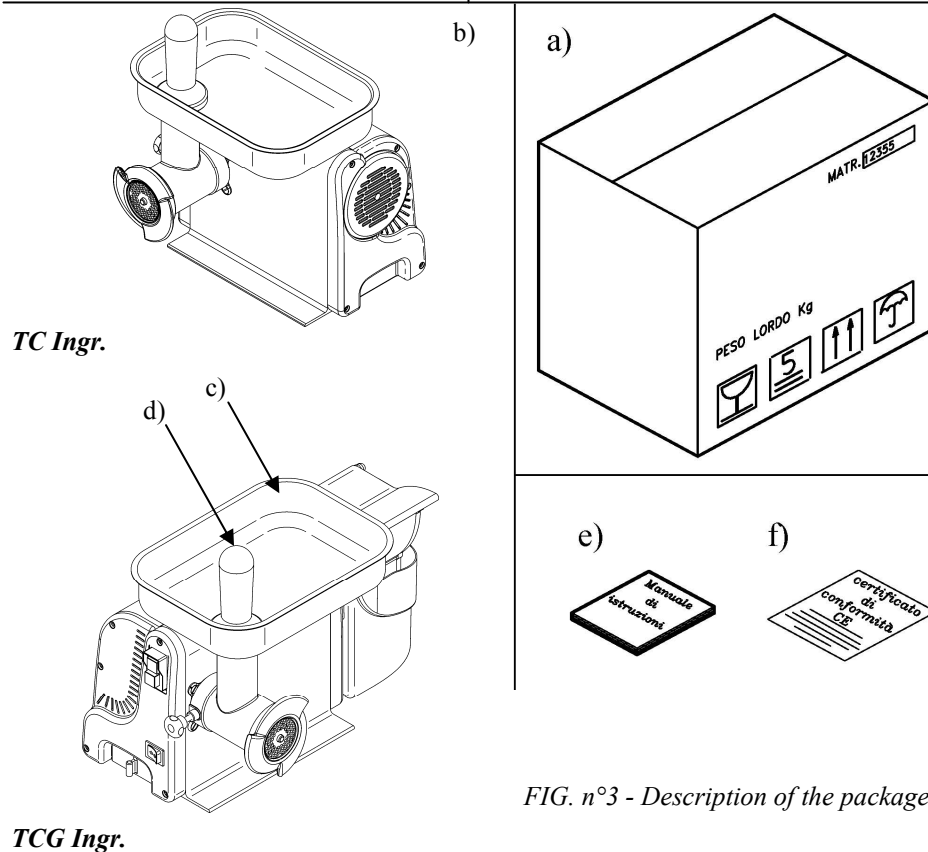


FIG. n°3 - Description of the package

3.2 - PACKAGE CHECK UPON 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. 1-2, 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

4.2.1 - TC/TCG Ingr. with 1ph motor

The appliance is equipped with a power supply cord which section 3x1.5mm², length 1.5m with a “SUKO” plug. Connect the appliance to 230 Volt 50 Hz, by interposing a differential-magnetothermal 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 - Rated plate - serial number