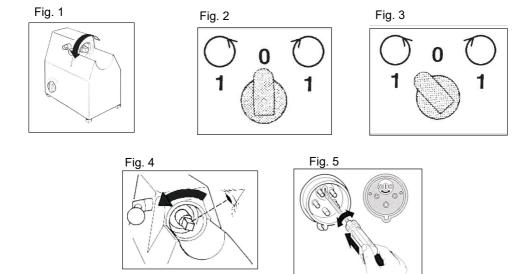


ELEVATING YOUR PASSION, SINCE 1898.

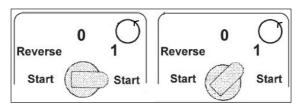
MEAT MINCER

TS22E - TS32E

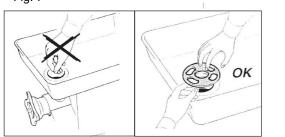


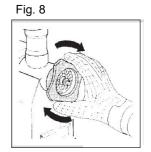














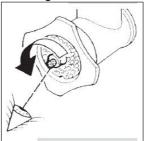


Fig. 11



Fig. 12





Fig. 14

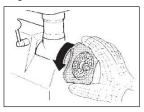


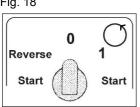








Fig. 18



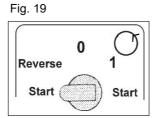


Fig. 20

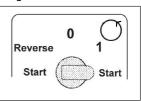
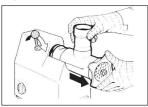


Fig. 21



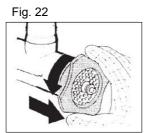
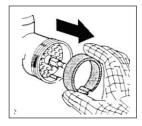


Fig. 23



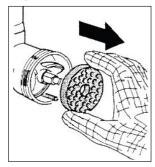
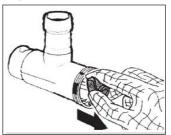
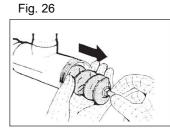


Fig. 25









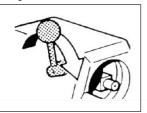
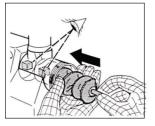


Fig. 30













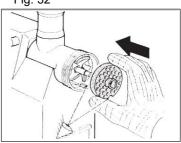
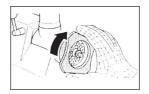


Fig. 33

Fig. 34



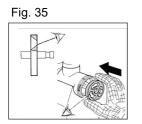


Fig. 38









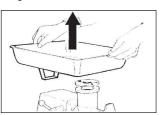


Fig. 40



Fig. 42



Fig. 39

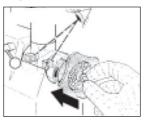
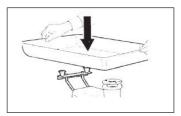
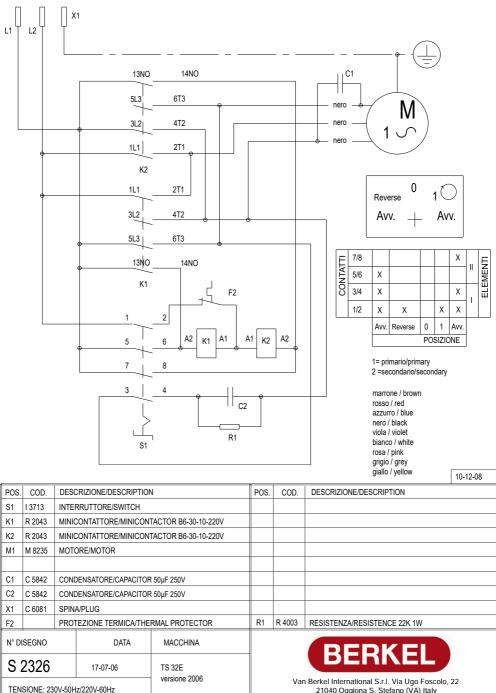


Fig. 41



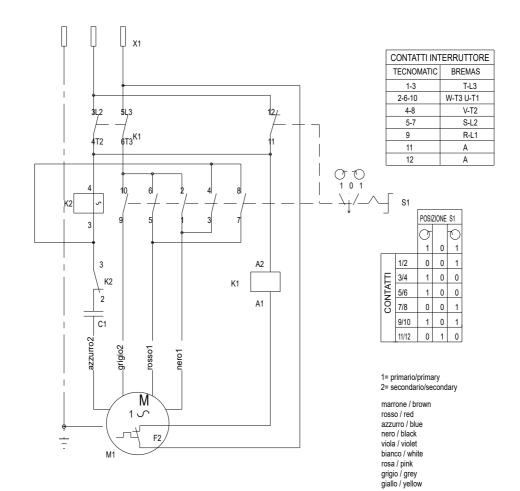






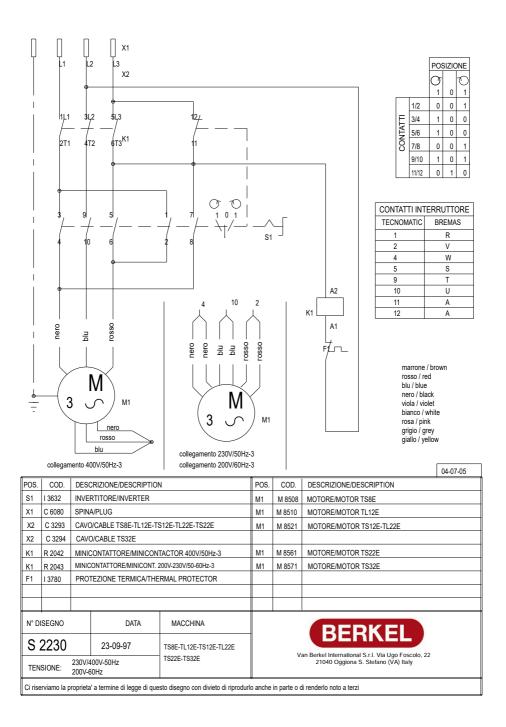
21040 Oggiona S. Stefano (VA) Italy

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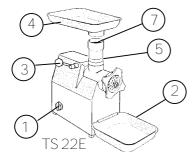
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POS	COD. DESCRIZIONE/DESCRIPTION		CRIZIONE/DESCRIPTION	l	POS	COD.	DESCRIZIONE/DESCRIPTION	
K1	R 2043	MINICONTATTORE/MINICONTACTOR B6-30-10-220V			M1	M 8538	MOTORE/MOTOR TS12E-TL22E 220V/60Hz-1	
k2	R 2001	RELE/RELAY 5,1A TS8E - TL12E			M1	M 8573	MOTORE/MOTOR TS22E 230V/50Hz-1	
k2	R 2002	R 2002 RELE/RELAY 11,8A TS12E - TL22E - TS22E		M1	M 8578	MOTORE/MOTOR TS22E 220V/60Hz-1		
					S1	1 3632	INVERTITORE/INVERTER	
M1	M 8507	MOTORE/MOTOR TS8E 230V/5		//50Hz-1	X1	C 3251	SPINA/PLUG	
M1	M 8504	MOTORE/MOTOR TS8E 220V/60Hz-1		//60Hz-1	F2	1 3780	PROTEZIONE TERMICA/THERMAL PROTECTOR	
M1	M 8509	MOTORE/MOTOR TL12E 230V/50Hz-1		C1	C 5842	CONDENSATORE/CAPACITOR 50uF/250V TS8E-TL12E		
M1	M 8517	MOTORE/MOTOR TL22E 220V/60Hz-1		C1	C 5849	CONDENSATORE/CAPACITOR 80uF/250V TS12E-T	L22E-TS22E	
M1	M 8520	MOTORE/MOTOR TS12E-TL22E 230V/50Hz-1						
N° DI	ISEGNO		DATA	MACCHINA			DEDKEL	
S	S 2192		09-11-94	TS8E-TL12E-TS12E		BERKEL		
TENSIONE: 230V-50Hz 220V/60Hz TL22E-TS22E					Van Berkel International S.r.l. Via Ugo Foscolo, 22 21040 Oggiona S. Stefano (VA) Italy			

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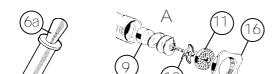


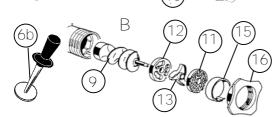


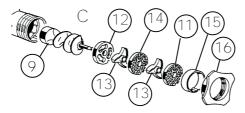
USER MANUAL: MINCER MODELS: TS22E - TS32E











MAIN COMPONENTS

- 1. Start switch
- 2. Foodholding plate
- 3. Cutting unit clamping handle
- 4. Tray
- 5. Worm casing
- 6a. Pusher
- 6b. Pusher (TS32E)
- 7. Feed intake
- 8. Restrictor plate
- 9. Worm
- 10. Knife
- 11. Hole plate
- 12. Large hole plate
- 13. Double-edged knife
- 14. Hole plate
- 15. Spacer ring
- 16. Lock nut
- A. Single cut cutting unit
- B. Double cut cutting unit
- C. Triple cut cutting unit

DECLARATION OF CONFORMITY

The machines described in this manual comply with Directives 2006/42/EC; 2014/30/ UE; 2014/35/UE; 2011/65/UE, Regulation (EC) 1935/2004. The applicable harmonised standards are: EN 12331 IPX2 Grade, EN 60204-1.

CE

DESCRIPTION

Professional Meat Mincer machines suitable for cutting only the food products of the types and within the dimensional limits indicated in this manual. The main parts of the machine are shown in the general component diagram reported in Fig. A. Electrical diagrams are reported in Fig. B.

These appliances are intended to be used for commercial applications, such as kitchens in restaurants, canteens, hospitals and in commercial enterprises such as butchers etc., but not for the continuous production of food in series.

The mincers are made of selected materials that make the machine particularly robust. The materials used in their construction, anodized aluminium and stainless steel, have been selected in accordance with the relevant hygiene standards and maintain the machine in its original condition over time.

-The high motor power provides high production capacity - No hand-arm vibration.

-Simple design with smooth parts without sharp edges provide for easy cleaning and a practical use of the machine.

-The pusher is made in a plastic material fit for contact with food- stuffs.

-The final part of the cutting unit is fitted with an EDISON screw thread according to the USA NSF standard 8.

-Due to the particular construction of the cutting unit it is possible, in exceptional circumstances, to place it in a refrigerator. Such operation does not exclude the necessity of daily cleaning.

-The easy assembly and disassembly of the components simplify the use and maintenance of the machine.

MACHINE IDENTIFICATION

In any communication with the manufacturing company always quote the serial number indicated on the identification label of the machine.

SAFETY

Pay attention to the following basic safety precautions: -read all the instructions before using the machine;

-operate the machine only if properly trained and in perfect psycho-physical conditions;

-the appliance can be used by children under the age of 8 and by people with reduced physical, sensory or mental abilities, or without experience or the necessary knowledge, as long as they are supervised or after they have received instructions relating to the safe use of the appliance;

-cleaning and maintenance intended to be carried out by the user must not be carried out by unsupervised children;

-do not use the machine in any way other than what indicated in this manual;

-use the machines only in full structural, mechanical and system efficiency;

-install the machine in conformity to the instructions indicated in the "Installation" section;

-install the machine in a location out of the reach of personnel unauthorized to operate it;

-stay highly concentrated when using the machine and avoid any distraction during use;

do not allow the machine to be used by others who have not read and fully understood the content of this manual;

-do not wear baggy clothing or clothing with open sleeves;

-do not allow anyone else, other than the operator, to approach during product cutting operations;

-do not remove, cover or modify the tags located on the machine body and, in case of damage of these, replace them promptly;

-do not remove and do not modify or bypass any mechanical and electrical protective devices;

-mince only the permitted products, do not attempt to

mince prohibited type products;

-always keep clean and dry the work area all around the machine and the operator floor area;

-periodically check the condition of the power supply cord on the machine body. When necessary, have qualified personnel replacing it;

-immediately stop the machine in the event of a defect, abnormal operation, suspicion of breakdown, incorrect movement, unusual noises:

-before cleaning or carrying out maintenance, disconnect the machine from the electrical supply;

-use protective gloves for cleaning and maintenance operations;

-use of cutting accessories which were not provided by the manufacturer with the machine is prohibited.

The manufacturer declines any responsibility coming from inappropriate use, modifications and/or repairs carried out by the user or unauthorized personnel, use of replacement parts that are not original or not specific for the machine model.

The machine shall not be used in open areas and/or areas which are exposed to atmospheric agents and in environments with vapors, fumes or corrosive and/or abrasive powders, with risk of fire or explosion and in any case where the use of antiexplosive components is required.

Operating conditions:

- Temperature from + 5°C to

+40°C

- Max. humidity 95%

DO NOT MINCE:

- frozen food products;
- food products with bones:

- any other product not intended for food use.

INSTALLATION OF THE MACHINE

The machine must be carried by two operators.

The mincer must be placed horizontally on a stable, robust and antiskid base adequate to support its weight (Refet to data sheet).

The suggested height of the working table is about 800 mm.

Check that the product can be easily inserted into the worm hopper.

WARNING! The working table must always be clean

Electrical supply

The machine must be installed in the immediate vicinity of an EEC standard outlet connected to an electrical supply system which is in conformity with the prevailing regulations for:

- magneto-thermic protection;

- automatic differential switch;

- earthing system.

Before carrying out electrical hook up verify that the characteristics of the electrical power supply is in accordance with those indicated on the machine information plate.

In case of power failure, the

machine stops. Position the switch to 0 (Fig.2) and wait for the return of the power.

Check of the rotation direction

IMPORTANT: Check the rotation direction, only on the machines fitted with a 3-phase motor (Fig. 1).

DANGER: The components of the cutting set can be seriously damaged if the rotation direction of the worm is not the correct one.

-Follow the instruction of 'Components removal' section;

- Make sure that the switch is positioned to 0 (Fig.2);

-Connect the plug at the electric supply;

-Rotate the switch on position 1 (Fig. 3).

IMPORTANT: THE SQUARE SHAFT MUST TURN AN-TICLOCKWISE. (Fig. 4) SHOULD IT TURN CLOCK-WISE, STOP THE MACHINE.

DISCONNECT THE PLUG FROM THE POWER SUPPLY AND REVERSE THE WIRES IN THE PLUG.

IF THE MACHINE IS FIT-TED WITH A PLUG WITH S E L F - C O N T A I N E D PHASE INVERTER, USE A SCREW-DRIVER INSIDE THE PLUG, TO ROTATE BY 180° THE AUTOMATIC PHASE IN-VERTER.(Fig. 5)

DANGER: THE MA-CHINE MUST RUN ONLY IF THE ROTATION IS CORRECT.

-Make sure that the switch is

positioned to 0 (Fig.2); -Disconnected the machine from the electric supply.

IMPORTANT: Preliminary cleaning: once checked the rotation direction, clean the machine, by removing the protecting oil. Reassemble the components, by following the instructions given on "components reassembling" section.

TS 32E with single phase motor

The single phase machine has a start switch with a condition of instability "Start".

For a correct start you must rotate the switch to "Start" and after a few seconds release the switch (Fig. 6).

OPERATION

Machine functioning and use

Warning! Use perforated discs with holes of more than 8 mm diametre only if the machine is provided with an additional discharge guard.

WARNING! THE THICKNESS OF THE PLATES USED TOWARDS THE MEAT OUTPUT MUST NOT BE INFERIOR TO 5 MM.

WARNING! DO NOT REMOVE THE RE-STRICTOR PLATE OF THE WORM CASING (Fig.7).

WARNING! DO NOT INSERT FOREIGN THINGS INTO THE FEED IN-TAKE OF THE WORM CAS-

ING.

The meat mincers mince any sort of meat provided that it is deboned and defrosted. For correct mincing the temperature of the meat must be between 2° (35,6°F) and 5° C (41 °F)

- Make sure that the switch is positioned to 0 (Fig. 2).

- Connect the plug and check that the electric supply is connected to a suitable earth.

- Cut the meat to a size suitable to be inserted into the worm hopper.

- Place the meat in the hopper.

-Place a foodholding plate under the hole plate outlet to collect the minced meat.

- Before grinding the meat carefully fasten the locking nut (Fig. 8).

WARNINC! The nut must be to screw with a couple to lock of: 4 Kgm(TS 22E) 7 Kgm (TS 32E)

-Turn the switch to 1 (Fig. 3).

IMPORTANT TS 32E single phase: turn the switch on "Start" position, after a few seconds, the machine runs normally, release the switch automatically on to position 1 (fig.6);

-The worm shaft rotates counterclock wise (Fig. 10), the minced meat comes out of the hole plate.

- Using the pusher supplied with the machine push the meat towards the worm hopper (Fig.11).

-TS32E: The machine is fitted with a second pusher, having the same diameter of the feed intake opening, in order to expedite the pressure on the whole product (Fig.12).

-Insert the pusher into the hole on the restrictor plate, push the meat into the feed intake.

The size of the product to be minced depends on the type of hole plate fitted.

WARNING! ONLY USE THE PUSHER SUP-PLIED WITH THE MACHINE. THE USE OF ANY OTHER TOOLS MAY SERIOUSLY DAMAGE THE MACHINE. WHEN INTRODUCING THE MEAT INTO THE WORM HOPPER AVOID USING EX-CESSIVE PRESSURE WHICH MAY CAUSE THE MACHINE STOP (Fig.13).

- Once finished the operation, position the switch to 0 (Fig.2).

-To avoid to damage the hole plates and knives, loosen the lock nut for about half a turn (Fig. 14).

WARNING! In case of a blockage to the worm follow these instructions:

-Turn the switch to the 0 position (Fig.15);

-Turn it to the reverse position and keep it just few seconds in this position: the direction of rotation of the worm is reversed, unblocking it (Fig. 16);

- Turn the switch to the 1 (Fig.17) position to restart the normal operation.

-If the worm continues to

block, repeat the instructions until the machine operates normally (Fig. 15-16-17)

WARNINC! TS 32E single phase - In case of a blockage to the worm follow these instructions:

- Turn the switch to the 0 position (Fig. 18);

- Turn the switch to "Start" to reverse the rotation of the worm.

After a few seconds, release the switch. (Fig. 19);

-Once removed the blockage of the worm turn the switch to the 0 position (Fig. 18);

-Turn the switch to "Start" to restart the normal operation. After a few seconds, release the switch (Fig. 20).

-If the worm continues to block, repeat the instructions until the machine operates normally (in sequence: Fig. 18-19-18-20)

THERMIC SAFETY DEVICE

WARNINC! This machine is fitted with a motor thermic safety device. If the motor stops after a long use wait 10-20 minutes (the time necessary to reduce the motor temperature).

Start again by following these instructions:

- Reposition the switch to 0 (Fig. 15 / TS32E 1Ph: Fig. 18);

- The safety device resets itself automatically;

- To switch on the machine, follow the instructions to the section "Machine functioning and use"

CLEANING

The machine must be cleaned once a day or more frequently if necessary.

Clean all the parts using a cloth sprinkled with water and washing up liquid (do not use strong detergents) and a brush

WARNING! Do not use water jet

Components removal

ATTENTION! Unscrew the nut by turning it counterclockwise (Fig. 14)

-Turn the locking screw of the cutting unit in a clockwise direction to the end of the stroke and remove the worm casing (Fig. 21);

-Unscrew the lock nut by turning it counterclockwise (Fig. 22);

- Remove the space ring (only on machines whit double-triple cut) (Fig.23);

-Remove holes plate and knives (Fig. 24 + Fig.25).

-Take the worm with both your hands and remove it on the worm casing (Fig.26);

Worm casing cleaning:

-Leave all the parts to soak in a container with water and washing-up liquid.

-If necessary use a small bristle brush to remove the residual products from the feed worm, the hole plate, the knife and the inside of the worm casing.

-Rinse the components in running water and then dry them.

WARNING! Particular attention must be paid to cleaning the internal housing connecting the worm casing with the body of the machine. It is possible that, during the use, meat residues can be deposited: these must be removed by using a brush and a cloth.

Components Reassembly

Assembling 1 cut cutting unit:

-Turn clockwise the handle of the cutting unit to the end of the stroke (Fig.27);

-With both your hands insert the worm casing into the machine and push it in (Fig.28);

-Turn counterclockwise the handle of the cutting unit to lock the worm casing (Fig. 29);

-With both your hands insert the worm into the worm casing making sure that the square drive on the worm seats is positioned on the drive pin, insert the worm into the worm casing (Fig. 30);

-Mount the blades on the feed screw shaft by inserting them onto the square seat with the cutting edges pointing outwards(Fig. 31).

ATTENTION: THE CUTTING EDGES OF THE KNIVES MUST BE PO-SITIONED TOWARDS THE OUTSIDE. THE MACHINE CAN BE DAMAGED IF THE KNIVES ARE MOUNTED IN THE OPPOSITE POSITION (CUTTING EDGES POINTING TOWARDS THE INSIDE).

-Mount the hole plate by inserting it on the worm haft and by ensuring that the notch is aligned with the reference pin on the worm casing (Fig. 32).

-Mount the nut and turning it in a clockwise direction (Fig.33).

Assembling 2-3 cut cutting unit

-Turn clockwise the handle of the cutting unit to the end of the stroke (Fig.27);

-With both your hands insert the worm casing into the machine and push it in (Fig. 28); -Turn counter clockwise the handle of the cutting unit to lock the worm casing (Fig. 29);

-With both your hands insert the worm into the worm casing, making sure that the square drive on the worm seats is positioned on the drive pin, insert the worm into the worm casing (Fig.30); -Fit the first hole plate (large hole plate) inserting it into the worm shaft making sure that the cutting side of the holes are pointing outwards (Fig. 35);

-Fit the double edged knives on the worm shaft with the tang pointing outwards (Fig. 31);

ATTENTION: THE TANG ON THE KNIVES MUST POINT OUTWARDS. THERE IS A RISK THAT THE MACHINE MAY BE DAMAGED IF THE KNIVES ARE FITTED THE OTHER WAY ROUND (TANG INWARDS).

-Fit the second hole plate inserting it on the tang of the knife ensuring that the notch is aligned with the reference pin on the worm casing (Fig 32). -Only for 3 cut cutting unit: fit the second double edged knife on the worm haft with the tang pointing outwards (Fig. 35);

ATTENTION: THE TANG ON THE KNIVES MUST POINT OUTWARDS. THERE IS A RISK THAT THE MA-CHINE MAY BE DAMAGED IF THE KNIVES ARE FITTED THE OTHER WAY ROUND (TANG INWARDS).

-Only for 3 cut cutting unit: fit the third hole plate inserting it on the tang of the knife ensuring that the notch is aligned with the reference pin on the worm casing (Fig.32);

-Fit the spacer ensuring that the notch is aligned with the reference pin on the worm casing (Fig. 37);

-Fit the lock nut and turning it in a clockwise direction (Fig. 33);

-Fit the tray and the foodholding plate (Fig. A-4 and Fig. A-2)

Disassembling of the complete cutting unit

Due to the particular construction of the cutting unit it is possible, in exceptional circumstances, to place it in a refrigerator:

-Lift up the tray from the worm casing (Fig. 38);

-Unscrew the nut by turning it counterclockwise (Fig. 14); -Turn the locking screw of the cutting unit clockwise to the end of the stroke. Remove the cutting unit (Fig. 21). -Place the complete cutting unit in the fridge.

Assembling of the complete

cutting unit

-Turn the locking screw of the cutting unit clockwise to the end of the stroke (Fig. 29);

ATTENTION! Unscrew the nut by turning it counterclockwise (Fig. 14);

-With both your hands insert the worm casing into the machine positioning the edges of the worm casing on those of the machine and push it (Fig.29)

- By making sure that the square drive on the worm seat is positioned on the square drive pin offer up the cutting unit to the body of the machine (Fig.39);

-Turn the worm casing locking screw counter- clockwise to lock the casing (Fig. 29);

-Turn the lock nut in a clockwise direction (Fig. 33);

ATTENTION

TS 22E: the hopper on the upper part of the worm casing (Fig. 42)

TS 32E: the hoppers of the mincer have a special back support:

-Standard hopper assembling (Fig. 40);

- Assembling of the hopper supplied on request (Fig. 41)

- Place the foodholding plate under the cutting unit (Fig. 43)

SERVICE

No user-serviceable parts are inside. Refer servicing to qualified personnel. All the repair and replacement operations shall be executed exclusively by personnel authorized by the manufacturer.

In the event service is need-

ed, you may return your food slicer to the manufacturer or to one of the Authorized Service Centers.

For information about service centers please contact us at:

service@berkelinternational. com.

WARRANTY AND RESPONSIBILITY

The manufacturer supplies machines with a limited warranty of 24 months from the purchasing date. The warranty is extended only to defects that arise under intended use conditions and proper use. The warranty does not cover defects resulting from faults caused by transport, purchaser's incompetence or negligence, improper installation or earthing, unauthorised interventions, natural wear and tear, voltage variations greater than 10% of the nominal value. Moreover, the warranty does not cover components intrinsically subject to wear, except in the event of evident manufacturing defects.

The manufacturer declines any direct and indirect responsibility coming from: failure to observe the instructions in this manual:

use which does not conform to prevailing specific regulations in the country of installation;

unauthorised modifications and/or repairs carried out on the machine;

use of non original accessories and replacement parts; exceptional events.

Transfer of ownership of the

machine automatically defaults the manufacturer's liability for the machine in question with the exception of observance of directive 2006/42/CE (liability for any manufacturing defects of the product).

The Identification tag on the base-plate indicates manufacturer, machine, technical information and CE marking.

DEMOLITION OF THE MACHINE

The machines are comprised of: -aluminum/magnesium alloy structure; -inserts and various compo-

nents and stainless steel; -electrical parts and electrical cables;

-electric motor;

-plastic material, etc.

If dismantling and demolition are entrusted to third parties, use only companies authorized for disposal of the above-mentioned materials.

The appliance complies with the EU Directive 2012/19/UE. Packaging materials and appliances contain recyclable materials. Your appliance contains valuable materials that can be recovered or can be recyclable. Separation of the remaining waste materials into different types facilitates the recycling of valuable raw materials. Leave the appliances at a collection point. You can obtain information on disposal from your local authorities.

Trouble shooting

PROBLEMA	CORRECTIVE ACTION		
The machine vibrates, overheats and emits a foul smell	Stop it and check that the voltage meets the one given on the metal plate		
The meat comes out not correctly	Check the correct assembly of the cutting set (ref. to "Assembling cutting unit" section). Check the wear of the hole plates and knives, if these are worn, replace them.		
The worm shaft is badly worn.	Contact Customer Service to replace it.		

In the event of any faulty operation do not hesitate to contact the customer service.

TS 32E - MEAT PUSHER USE

Polyethylene meat pusher

The polyethylene meat pusher is used for compressing the pieces of meat to be minced towards the meat mincer funnel and its worm.



Stainless steel meat pusher

The stainless steel meat pusher is used for compressing the small pieces of meat of the already minced meat needing a further mincing cycle towards the meat mincer worm. The end of the tool is in the shape of a disc and it is made of stainless steel too. Thanks to its adequate calibration in sliding into the feed intake, it ensures perfect removal of eventual remaining material towards the worm of the mincer

