

08/2010

Mod: HBM-60/V

Production code: C.LINE 60 V.V



Diamond
catering equipment

INDEX PER TOPIC

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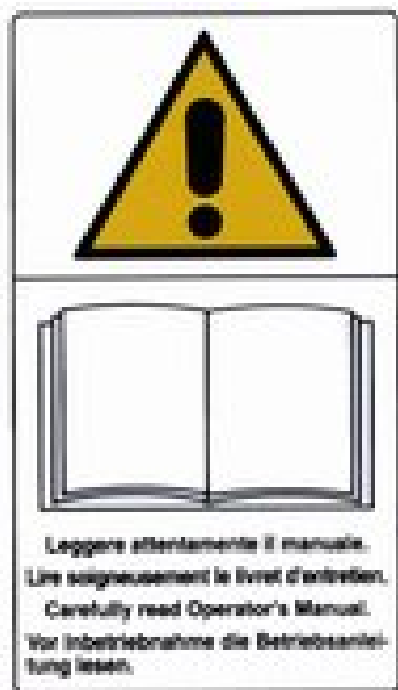
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INTRODUCTION, GENERAL WARNINGS AND WARRANTY RULES



***CAREFULLY READ THIS INSTRUCTION MANUAL
BEFORE OPERATING THE MACHINE.***

***OBSERVE ALL SAFETY REGULATIONS AND INSTRUCTIONS
DURING OPERATION OF THE MACHINE.***

INTRODUCTION, GENERAL WARNINGS AND WARRANTY RULES

INTRODUCTION

This instruction manual has been designed and organised for quick easy reference. For this purpose, in addition to the INTRODUCTION and GENERAL WARNINGS, it contains an INDEX PER TOPIC and an ALPHABETICAL INDEX on pages 1 and 2 respectively.

For each topic discussed, illustrations and tables are provided beside the corresponding text to facilitate understanding.

The instruction manual is divided into SECTIONS.

For the topics discussed in each SECTION, refer to the detailed INDEX PER TOPIC on page 1.

GENERAL WARNINGS

This instruction manual is intended for the owner/user of the machine, the personnel employed by the latter in positions of responsibility within the company, personnel assigned to handling, installation, use, supervision, maintenance and scrapping of the machine etc.

This manual provides information on the technical specifications and scheduled use of the machine, instructions/indications/information on handling, installation, assembly, adjustment and use in addition to information on personnel training in order to facilitate maintenance work, troubleshooting, ordering of spare parts, residual risk assessment etc.

This manual forms an integral part of the MACHINE which is DESIGNED FOR PROFESSIONAL USE but the manual should never be considered a substitute for adequate user training and experience. Operations requiring personnel with specific skills are highlighted in the manual.

The manufacturer reminds its customers, i.e. users of the machine, that they are also required to observe the specific legislation concerning places of work and that adequacy and conformity of the work place with current regulations are essential conditions for correct installation and use of the machine.

The manufacturer's modern facilities - STUDY AND DESIGN DEPARTMENT, AFTER-SALES SERVICE, ASSEMBLY TEAM - enable it to satisfy all customer requirements extremely quickly.

INTRODUCTION, GENERAL WARNINGS AND WARRANTY RULES

This manual should be considered part of the machine and must be kept for future reference until the machine is scrapped.

This manual must be kept in a dry easily accessible place, preferably within easy reach of the machine.

This manual reflects the state of the art existing at the time the machine is sold and cannot be considered inadequate simply because it is later updated in the light of further experience.

The manufacturer reserves the right to update the machine and instruction manuals without being obliged to update machines and/or manuals produced previously, barring exceptional circumstances. On request, however, the manufacturer will provide customers with any further information they may require and will be pleased to receive any customer suggestions for improvement of this manual.

If the machine is sold, customers (users) are kindly requested to notify the manufacturer of the address of the new owner for the above-mentioned purpose.

The manufacturer accepts no liability in the event of the following:

- a. inappropriate use of the machine or use by personnel not trained to operate professional machines
- b. use not in compliance with specific national regulations
- c. incorrect installation
- d. power supply faults
- e. lack of maintenance
- f. unauthorised modifications or work
- g. use of non-original spare parts or parts not specifically intended for the model
- h. total or partial failure to observe the instructions
- i. exceptional events etc.

WARRANTY RULES

The machine is guaranteed for 12 consecutive months from the date of purchase on condition that it is used according to the instructions contained in this manual. The warranty lapses if the machine has been used without following the directions contained in this manual or if the machine has been repaired, disassembled, or modified by unauthorised workshops or after-sales centres. All electrical parts are excluded from the warranty if the damage has been caused by incorrect use of the machine.

SECTION A POINT 1

MACHINE IDENTIFICATION DATA

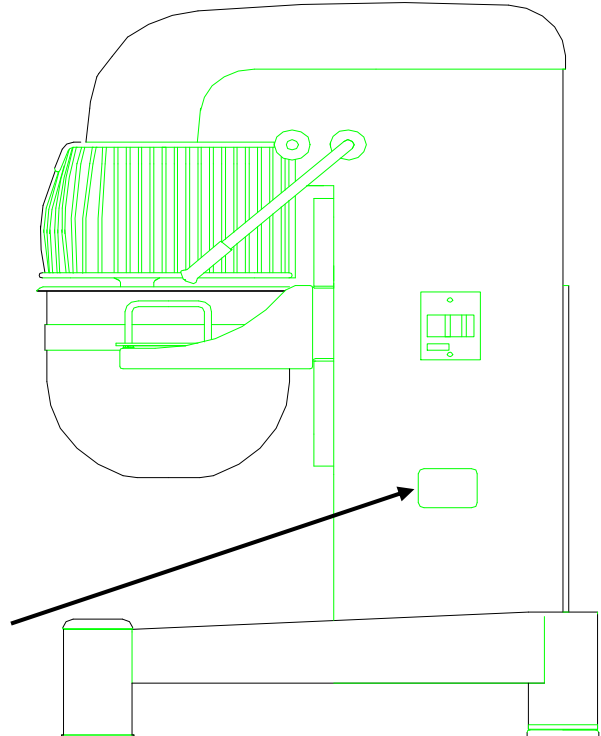
MACHINE IDENTIFICATION DATA

Fig. 1 shows the plate affixed to the machine in the position indicated by the arrow in Fig. 2. The plate, containing all the data necessary for identifying the machine, is made of aluminium with the wording punched and screen-printed to make it indelible.

Fig. 1

TEKNO STAMAP s.r.l.	
via Vittorio Veneto 131	
36040 Grisignano di Zocco VI	
tel. 0444-414731-35 fax 414719	
	
MACCHINA MOD	
MACHINE TYPE	
MACHINE TYPE	
MACHINE MODELL	
ANNO DI COSTR.	
CONSTR. YEAR	
ANNEE DE CONSTR	
BAUJAHR	
MATRICOLA N	
SERIAL N	
MATRICULE N	
FABRIK N	
PESO KG	
WEIGHT KG	
POIDS KG	
GEWICHT KG	
V	Hz
	FASI
	PHASES
	PHASES
	PHASEN
A	KW

Fig. 2



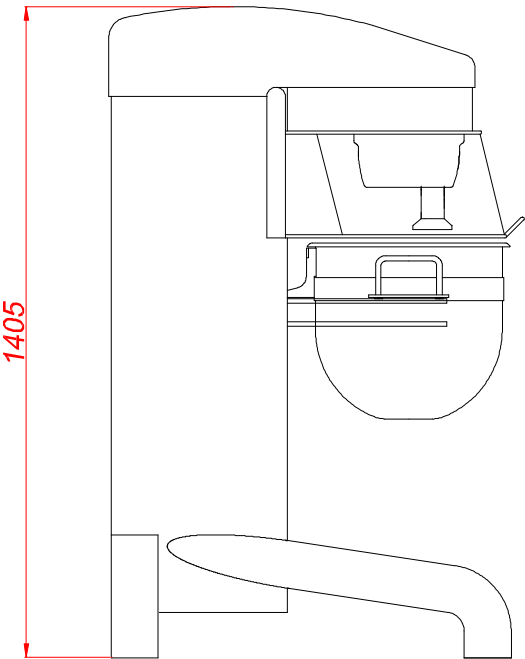
SECTION A POINT 2

TECHNICAL SPECIFICATIONS

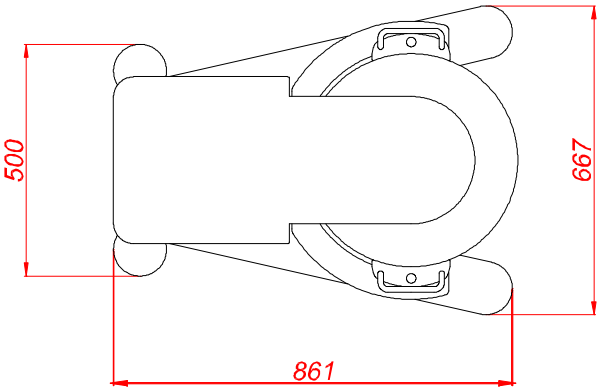
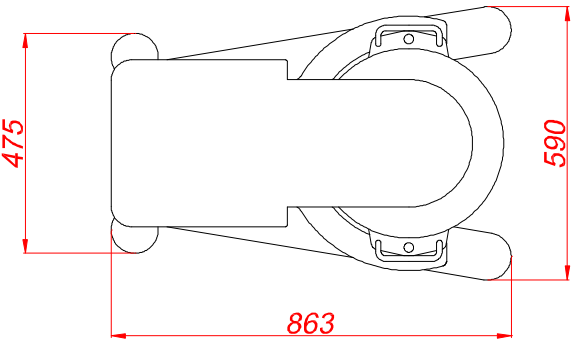
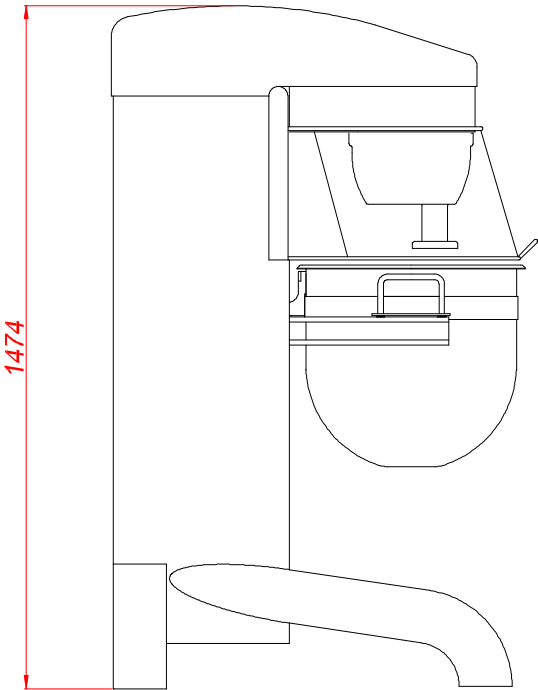
The main technical specifications of the machine are illustrated in Fig. 3 and shown in the table on the following page.

Fig. n°
3

C-Line 40



C-Line 60



SECTION A POINT 2

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS

			TEKNO 40 ñ 3V	TEKNO 40 - VRV	TEKNO 60 ñ 3V	TEKNO 60 - VRV
Capacity	l		40	40	60	60
Height	mm		1405	1405	1474	1474
Width	mm		590	590	667	667
Depth	mm		863	863	861	861
1st mixing speed	r.p.m.		30/100	30/100	30/100	30/100
2nd mixing speed	r.p.m.		60/200	60/200	60/200	60/200
3rd mixing speed	r.p.m.		12/400	12/400	12/400	12/400
Mixing speed	min.	r.p.m.		30-125		30-125
Mixing speed	max.	r.p.m.		100-417		100-417
Power installed		kW	2.2	2.2	3	3
Max. power absorbed		kW	2.2	2.2	3	3
Inside diameter of bowl		mm	400	400	400	400
Weight		Kg				

OPERATING LIMITS							
Product to be obtained	Amount of ingredient	Min / Max 40 L	Min / Max 60 L	Speed			Tool to be used
				1 st (30)	2 nd (60)	3 rd (125)	
Dough with 50% water	Flour (kg)	2 / 12	3 / 18	x			Spiral
Special bread	Flour (kg)	2 / 9	3 / 13	x	x		Spiral
Pizza	Dough (kg)	2 / 10	3 / 15	x			Spiral
Dough for cakes	Flour (kg)	2 / 10	3 / 15	x	x		Spiral/Paddle
Sugar dough	Flour (kg)	2 / 9	3 / 15	x	x		Spiral/Paddle
Dough for croissants	Flour (kg)	2 / 9	3 / 15	x	x		Spiral arm
Dough for buns	Flour (kg)	2 / 10	3 / 18	x	x		Spiral arm
Dough for puffs	Water (L)	1 / 8	2 / 12	x	x		Paddle
Meat	Meat (kg)	2 / 20	3 / 30	x	x		Spiral/Paddle
Mashed potato	Potatoes (kg)	2 / 20	3 / 30	x	x		Paddle/Beater
Chocolate	Sugar (kg)	2 / 12	3 / 18	x	x		Paddle/Beater
Egg white	Flour (kg)	20 / 70	30 / 90			x	Beater
Sponge	Eggs (no.)	20 / 60	30 / 90			x	Beater
Biscuits	Eggs (no.)	20 / 60	30 / 90			x	Beater
Meringues	Sugar (kg)	1 / 3	2 / 6	x			Beater

SECTION A POINT 3 APPLICATION

APPLICATION

The mixer, also referred to as «machine» is designed for the production of creams, slack dough, sauces and mayonnaise. It can be used as a beater or a mixer.

These machines are designed both for traditional pastry shops and bakeries and for large food processing laboratories and industrial kitchens.

Use of the machine for purposes other than those specified above constitutes a hazard both for the user and the machine. Likewise, failure to comply with the procedures for installation and/or use of the machine specified in Section B, points 2 and 3, can injure the operator and damage the machine.

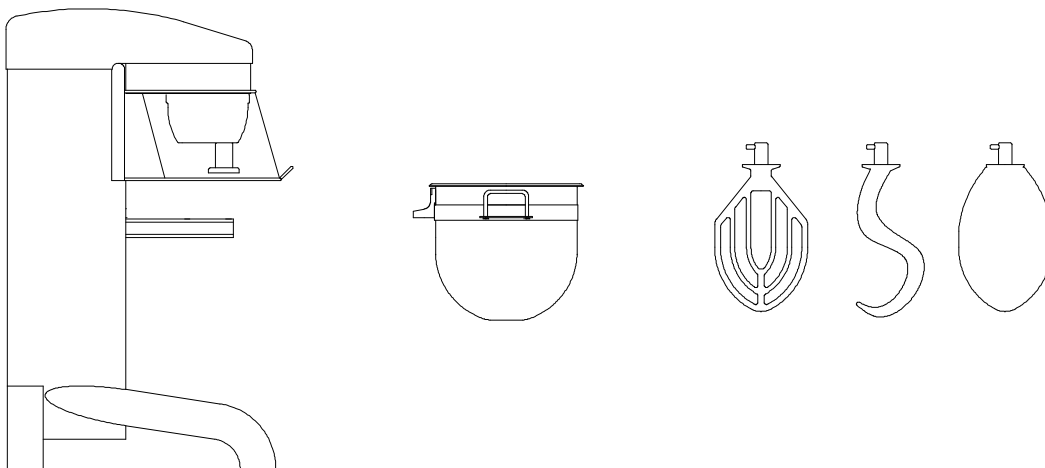
SECTION A POINT 4 MACHINE DESCRIPTION

TECHNICAL FEATURES

The machine consists basically of:

- ① a structure containing the motor parts and control devices
- ② a stainless steel bowl designed to contain the product to be mixed
- ③ a set of tools that can be interchanged according to the mixture required

Fig. 4



N.B.: further details of the machine and illustrations are provided in SECTION B point 3.

SECTION A POINT 4

MACHINE DESCRIPTION

MACHINE FEATURES:

- Structure made of cast iron and steel fabrication. Both materials are oven painted.
- Thermoformed ABS cover.
- Bowl, supporting ring and protective grid made of stainless steel
- Sturdy, reliable and silent mechanical components due to the adoption of a mixed drive system combining belts and special steel treated and ground gears with oiltight lubrication.
- The machine is available with electronic stepless speed variator or with three working speeds.
- Electronic panel.

N.B.: further details of the machine and illustrations are provided in Section A point 6.

SECTION A POINT 5

WIRING DIAGRAMS AND MACHINE CONTROLS

WIRING DIAGRAMS FOR THREE-SPEED VERSION

Key

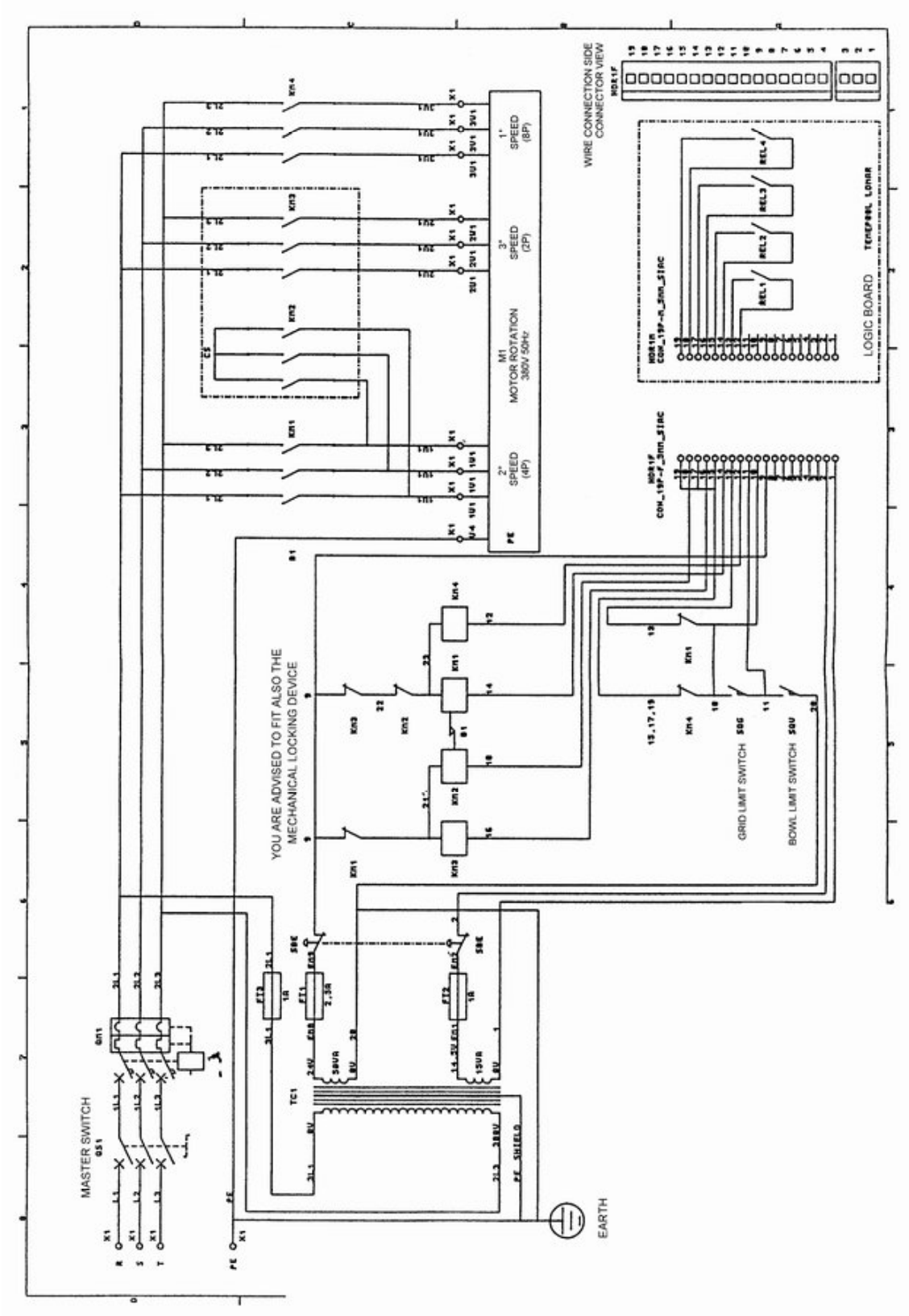
QS1	Master switch
M1	General motor
KM1	Contactor
KM2	Contactor
KM3	Contactor
KM4	Contactor
TC1	Transformer
HLL	Power on led
SQG	Grid safety microswitch
SQV	Grid safety microswitch
SBE	Emergency push-button
QM1	Automatic switch
FT1	Secondary fuse
FT2	Secondary fuse
FT3	Primary fuse

POWER BOARD SYMBOLS

SYMBOL	DESCRIPTION
	EARTH
	DANGER - LIVE PARTS
PE	OUTER PROTECTION WIRE TERMINAL

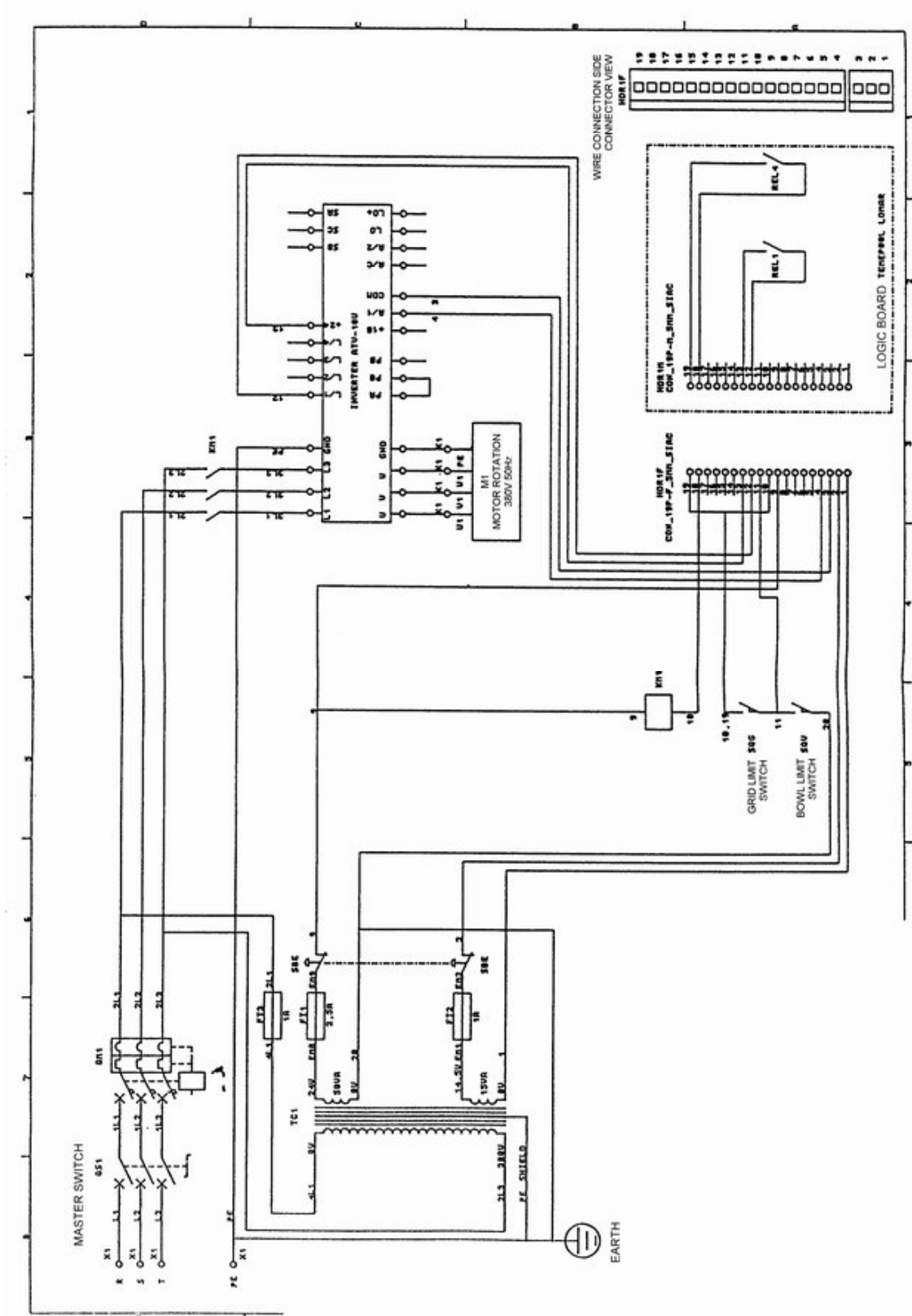
SECTION A POINT 5
WIRING DIAGRAMS AND MACHINE CONTROLS

WIRING DIAGRAMS FOR THREE-SPEED VERSION



SECTION A POINT 5 WIRING DIAGRAMS AND MACHINE CONTROLS

WIRING DIAGRAMS FOR SPEED VARIATOR VERSION



[illegible]

SECTION A POINT 6

PREVENTIVE MEASURES AGAINST HEALTH AND SAFETY HAZARDS

PREVENTIVE MEASURES AGAINST HEALTH AND SAFETY HAZARDS

In design and construction of the machine, the manufacturer has taken into account the results of a previous assessment of SAFETY AND HEALTH hazards relating to use of the machine.

The protections and safety devices fitted on the machine are therefore the result of the company's considerable efforts to achieve state-of-the-art safety levels as indicated in the specific EEC directives.

Detailed instructions, information and illustrations concerning said protections and devices are provided below to enable the machine user to work under the safest possible conditions. Due to its importance, this topic is also discussed in the specific points below concerning USE, MAINTENANCE, REPAIR, etc.

PREVENTIVE MEASURES AGAINST MECHANICAL HAZARDS

The following danger areas have been identified (Fig. 7):

Area 1: moving parts (motors and belts): danger of crushing

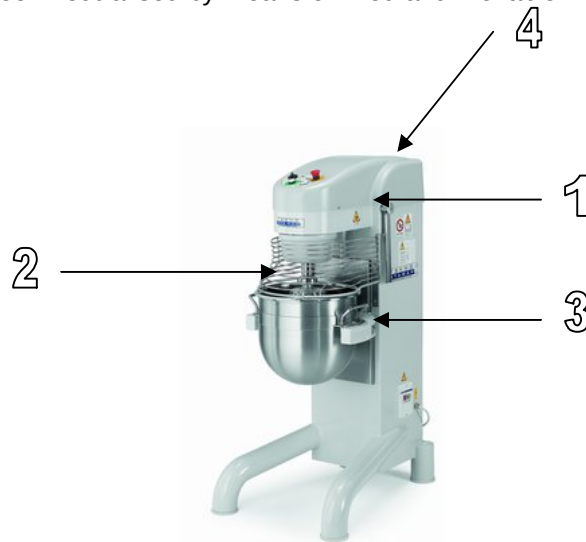
Area 2: area where tool is moving: danger of trapping

Area 3: area where tools are moving: danger of trapping and crushing

Area 4: area of electric plant: danger of electrocution

Fig. 7

The above dangers have been neutralised by means of fixed and movable interlocked guards.



Fixed machine guards

The fixed safety guards are realised on 2 area: the upper plastic cover protecting the motor , the electric plant and gear group, and the panel located behind the bowl which closed the bowl stopper and the microswitch for the bowl

Movable bowl guard and microswitch

When the protection is opened, the tool stops moving after 2 seconds max. This condition is guaranteed by a safety device. To restore the working cycle, close the safety grid and press the start button on the control panel. This guard encloses a stainless steel grid which covers fully the dangerous moving area. It has been designed following the current EEC rules, and sized in such way not been able to accede to the moving parts.

IMPORTANT

For any cleaning, maintance, lubricating operation for which it is necessary to remove the safety device, the first thing to do is to cut the electric feeding. Such operations must be carried on by qualified and authorised people.

PREVENTIVE MEASURES AGAINST ELECTRICAL HAZARDS

The preventive measures provided for by the EN 60204-1 standard have been adopted against the danger of direct and indirect contact and all the tests provided for by the above standard have been performed as certified in the attachment to the EC declaration of conformity. All the tests provided for by the current technical regulations have also been carried out for implementation of the EEC directive on EMC.

All the components are guaranteed by the manufacturers and each one is marked.

The machine is supplied with multi-pole cable with flexible wires in a PVC sheath type N 1 V V - K with low gas emission.

The socket, interlocked by a switch, must be positioned at a height of approximately 130 cm from the floor where there is no risk of knocking or damage.

At start-up the following **MUST** be checked:

- correspondance between mains voltage and machine voltage
- correct connection of the phases
- correct motor rotation direction

The equipment and all other electrical components are installed in closed housings to prevent any **DIRECT** contact with live parts; the following electrical current danger sign is affixed to the protective panel(s):



To protect against **INDIRECT** contacts, all the metal masses are connected via a yellow-green wire to the PE terminal in the F.M. box to which the yellow-green wire of the multi-pole power supply cable is also connected.

Via the plug-socket connection, this wire **MUST** guarantee electrical continuity between the machine and the general earth system; the machine user will be responsible for ascertaining the suitability and efficiency of the general system and accessory equipment necessary to cut off the power supply in the event of a failure.

To prevent the danger of faulty operation of the control circuit, one end of the transformer secondary circuit is connected to earth; in addition, automatic switches are fitted both on the primary and secondary circuits.

The controls and signalling devices together with the symbols indicating their functions are fitted on a panel; IP 54 protection rating is guaranteed overall by the characteristics of the individual electrical components and by the seal fitted between the housing and the cover.

The machine as a whole is protected to IP 44.

The machine electrical equipment also includes a mushroom-headed emergency stop located on the front of the machine.

PREVENTIVE MEASURES TO GUARANTEE HYGIENE

In design and construction of the machine, the provisions of the EEC directives 89/392 and 89/109 concerning food hygiene have been observed, also as regards the choice of materials that will come into contact with the product.

In particular:

- a. The elements or parts of the machine (bowl, tool, bowl protection grid) that come into contact with the dough ingredients or are in the FOOD AREA are made of STAINLESS STEEL. (If the machine is provided with plastic cover, the material is thick thermoformed ABS).
- b. The elements or parts of the machine that may come into contact with the above food products or are in the so-called DIRTYING OR SPLASH AREA are made of OVEN PAINTED STEEL.

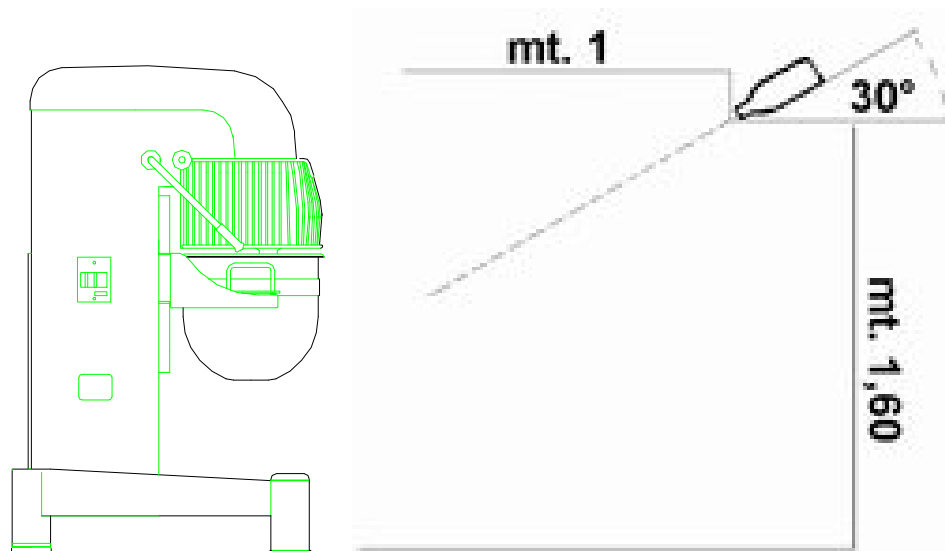
PREVENTIVE MEASURES AGAINST NOISE HAZARDS

When the machine is operating empty, which is considered the most unfavourable condition, it emits a weighted equivalent continuous acoustic pressure level lower than 70 dB (A).

As it is not possible to establish a set work place for this machine, the measurement was taken at the point shown in Fig. 12 at a height of 1.6 m from the ground and 1.00 m from the surface of the machine, in the direction of maximum sound emission.

From these findings it can be affirmed that the machine does not produce irritating or harmful noise or noise requiring the use of headsets or earplugs.

Fig. 12

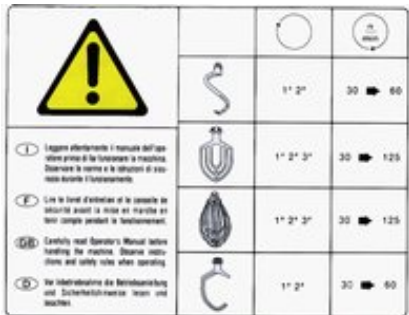


SECTION A POINT 7

SAFETY SIGNS - SYMBOLS

SAFETY SIGNS - SYMBOLS

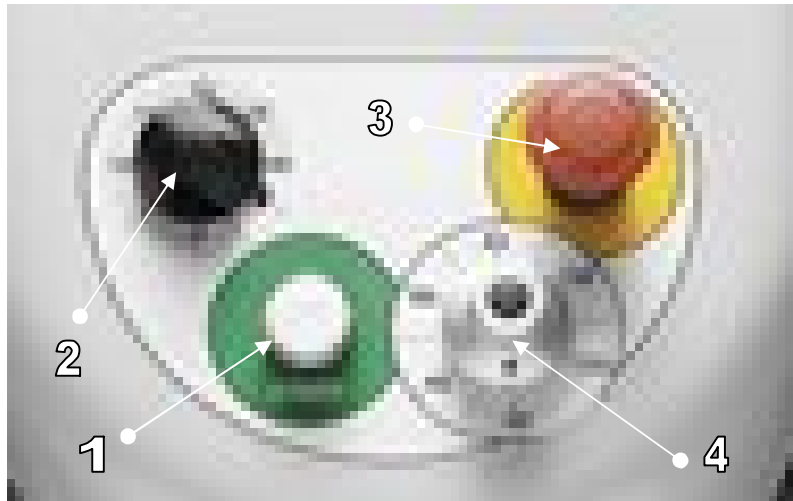
The safety signs are affixed to the machine by means of stickers designed to draw the operator's attention to possible hazards and to ensure his safety.

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	DO NOT REMOVE THE SAFETY DEVICES		DANGER – PARTS UNDER VOLTAGE
	CAUTION - FOLLOW THE INSTRUCTIONS		VOLTAGE
			TOOL INSTRUCTIONS

OTHER WARNINGS ON THE MACHINE

SYMBOL	DESCRIPTION
	EARTH
	BOWL AND TOOL ROTATION DIRECTION
PE	OUTER PROTECTION WIRE TERMINAL

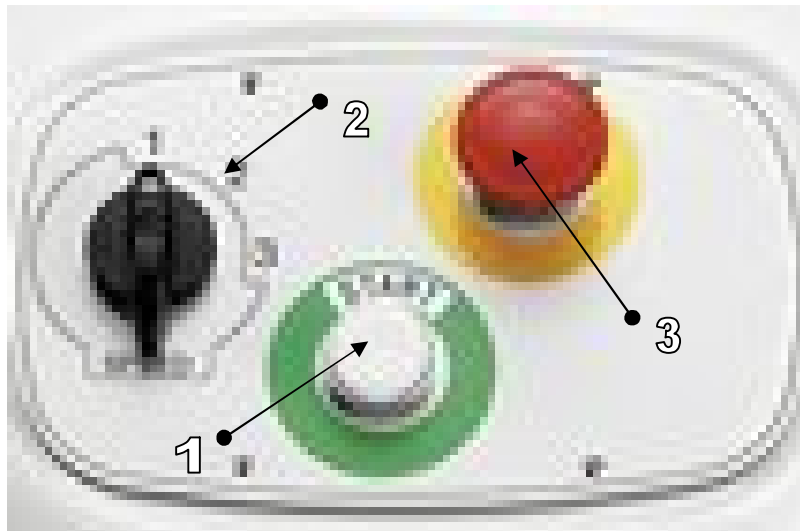
CONTROL PANEL SYMBOLS FOR SPEED VARIATOR VERSION



(Fig. 1)

- 1) Start button with led for switch on
- 2) Timer
- 3) Emergency switch
- 4) Speed variator

CONTROL PANEL SYMBOLS FOR SPEED VARIATOR VERSION



(Fig. 2)

- 4) Start button with led for switch on
- 5) Timer
- 6) Emergency switch

SECTION B POINT 1

TRANSPORT, HANDLING AND STORAGE

TRANSPORT, HANDLING AND STORAGE

The weight and overall dimensions of the machine are given in Section A point 2.

The machine is shipped assembled and packed in a case/crate/pallet made of nailed wooden boards. The packaging is provided with symbols and indications for handling.

The operators in charge of handling the load must be qualified and adequately trained.

Store the machine in a dry ventilated room and cover it with a protective sheet.

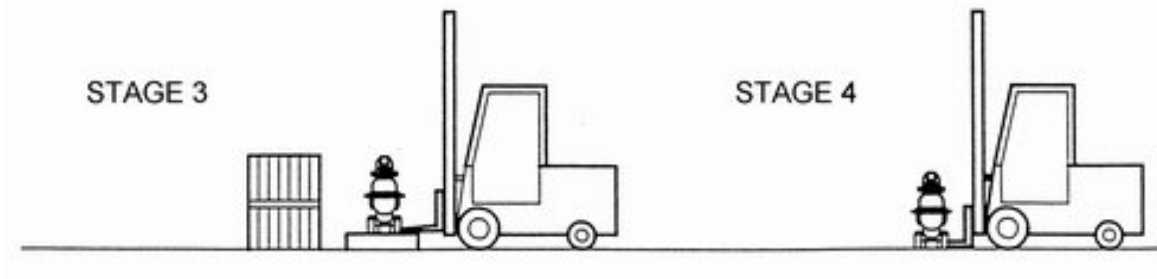
Unloading the machine with a forklift truck

- Stage 1: unload the machine from the lorry in its packaging (see Fig. 13);
- Stage 2: lay the machine on the ground;
- Stage 3: unpack and lift the machine by means of the forklift truck until the pallet can be removed (see Fig. 14);
- Stage 4: rest the machine on the ground on a flat solid surface as near as possible to where it will be installed.

Fig. 13



Fig. 14



SECTION B POINT 2

PREPARING THE ROOM - INSTALLING THE MACHINE

PREPARING THE ROOM

The room where the machine is installed and any existing equipment already installed in the room must comply with the directives, regulations, standards and technical specifications etc. in force in the user's country (E.U. or EFTA).

INSTALLING THE MACHINE

The machine is attached to the bottom of the packaging by means of three screws located inside the supporting foot. To access them, unscrew the spherical caps and remove the clamping screws using a 10 mm socket spanner. Refit the caps.

The purchaser/user or his representative must check the condition of the machine upon unpacking, immediately notifying the manufacturer of any damage or defects encountered.

For installation of the machine, the specifications on the identification plate illustrated in Section A point 1 and the overall dimensions given in Section A point 2 should be taken into account.

You should also remember to adjust the feet to ensure that the machine is level as explained in Section A point 6.

An area of approximately 50 cm must be left free all around the machine for use and maintenance. The normal working position is not established beforehand.

The machine is designed to operate in the normal temperature and humidity conditions found in EU and EFTA countries.

The machine must not under any circumstances be used in places where there is the danger of explosion or fire due to the presence or generation of dust, gas or explosive or flammable mixtures.

For connection of the machine to the electrical power source, see points 4 and 5 of Section B.

If the machine is installed by the manufacturer's personnel, the latter will demonstrate, in the presence of the purchaser/user or his representative, connection to the electrical power source, start-up, adjustment, use etc., and point out the main instructions contained in this manual.

SECTION B POINT 3

START-UP, USE AND ADJUSTMENTS

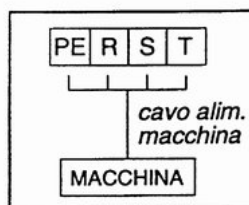
START-UP, USE AND ADJUSTMENTS

IMPORTANT WARNINGS !

Before starting the machine, the following precautions must be taken:

1. Check that the machine voltage, specified on the identification plate on page 5, corresponds to the line voltage of the socket you are using. If not, contact the supplier or manufacturer and do not connect up.
2. Check that when the bowl lowering button is pressed, the bowl moves down and not up; ensure that during the work cycle the tool rotates in the direction indicated by the arrow on the tool holder. If not, press the stop button  make sure you have set the external power supply switch to  and invert the two wires R and S as shown in Fig. 16.

The following pages contain figures and keys to help illustrate the start-up sequences.



CAUTION ! Never fill the bowl beyond the capacity indicated by the manufacturer as this can seriously damage the machine drive system.

The manufacturer accepts no liability for any damage caused by failure to observe the above instruction.

Emergency situations

If operator safety is endangered by the moving parts of the machine (tool, bowl, drive components), the machine must be stopped as quickly as possible, in one of the following ways:

- by disconnecting the power supply by setting the on-board master switch to position  or by setting the external power supply switch to 
- by pressing the STOP push-button.

SECTION B POINT 3

START-UP AND WORK CYCLE FOR SPEED VARIATOR VERSION

1st operation

Ensure that the EMERGENCY push-button (4) is released.

2nd operation

Turn the MASTER switch (0) to position 1. The POWER led (3) comes on. Open the protective grid and lower the bowl so that the products to be mixed can be placed inside, then re-close the grid and raise the bowl.

3rd operation

Timer can be set on manual position (1), and in this case is OFF or in position timer working (2). Set a desired speed, set the necessary working minutes by the graduated scale (3). It is possible to change the machine speed at any time during the working phase. When time is due, the machine will automatically stops (even by pushing START button it won't run again). In order to make the mixer starting again it is necessary to select once more the timer or to set it on manual working (1) and push START.



4th operation

It is possible to increase or decrease the machine speed acting on powermeter (4) Fig.1 pag.19. Use the graduated scale of this powermeter. It is possible to vary the satellite speed from 30 to 120 rpm

5th operation

There are 3 possibilities to stop the mixer:

- 1) acting on the emergency push-button (but remember to release it to start the machine again)
- 2) hoisting the safety grid
- 3) if timer is ON waiting the due time or acting on timer till zero to reduce the working time. Even if timer is ON it is possible to stop the mixer acting on the safety grid or on the emergency push-button

START-UP AND WORK CYCLE FOR 3 SPEEDS VERSION

1st Ensure that the EMERGENCY push-button (4) is released.

2nd Turn the MASTER switch (0) to position 1. Open the protective grid and lower the bowl so that the products to be mixed can be placed inside, then re-close the grid and raise the bowl.

3rd Set a desired speed through mechanic selector (2) pressing on switch (1) the mixer starts working. It is possible to change the machine speed at any time during the working phase. To stop working it is possible to push on the emergency switch (remind to release it in order to restore the mixer) or to move up the safety grid.



4th Timer can be set on manual position (1), and in this case is OFF or in position 'timer working' (2). Set a desired speed, set the necessary working minutes by the graduated scale (3). It is possible to change the machine speed at any time during the working phase. When time is due, the machine will automatically stop (even by pushing START button it won't run again). In order to make the mixer starting again it is necessary to select once more the timer or to set it on manual working (1) and push START.

SECTION B POINT 4

OPERATING FAULTS AND POSSIBLE SOLUTIONS

TROUBLESHOOTING AND ROUTINE REPAIRS

For troubleshooting and routine repairs, refer to the following table.

OPERATING FAULTS	POSSIBLE CAUSE	POSSIBLE SOLUTION
1. The tool slows down slightly when mixing strong dough.	The drive belt is not sufficiently taught.	Tighten the belt (instructions follow - see Fig. 18).
2. Bowl lifting is almost completely blocked.	The sliding bars are not sufficiently lubricated or remains of flour or dough have clogged the movement of the bowl arm.	Lubricate the sliding bars (instructions follow - see Fig. 19).
3. After plugging in the power supply and setting the MASTER switch to position 1, the "POWER" signal does not light up on the control panel.	- No power at the socket or the socket is faulty. - A fuse may have blown.	- Check the socket. - Replace the fuse.
4. The power supply is plugged in, the MASTER switch is on and the POWER signal on the control panel is on but the machine does not start when the three speed controls 2 ñ 3 ñ 4 are operated.	- The protective grid is open. - Bowl not in working position, emergency push-button (9) on. - The automatic thermal switch has cut in.	- Close the safety grid. - Position the bowl correctly. - Release the EMERGENCY button (9). - Reset the automatic switch.

SECTION B POINT 4

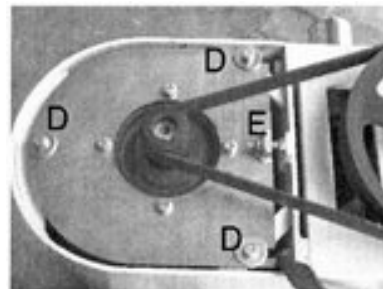
OPERATING FAULTS AND POSSIBLE SOLUTIONS

TROUBLESHOOTING AND ROUTINE REPAIRS

N.B.: before performing any repair or troubleshooting operation, turn the master switch off and unplug the machine.

Fault 1: fig. 18

Unscrew the four screws fastening the head cover. Remove the cover. Using a 13 mm spanner, loosen the three screws (D) locking the motor plate. Using the 13 mm open-end spanner, unscrew the belt tension adjustment screw (E) until the required tension is reached. Re-tighten the three screws (D), re-position the cover (A) and refit the four screws (C).



Fault 2: fig. 19 - fig. 19/A

Using a 10 mm spanner, remove the two protections at the top (A) and bottom (B). Clean any remains of oil on the two lifting bars (C) with a rag. Lubricate with oil. If movement is still blocked after this operation, you are advised to repeat the entire phase, then re-clean and lubricate. At the end of the operation, remember to refit the two protections previously removed.

CAUTION! Incorrect fitting of the two protections (A and B) will impair operation of the machine and reduce its working life.



SECTION B POINT 5

FOOD HYGIENE AND CLEANING

FOOD HYGIENE AND CLEANING

IMPORTANT !

All cleaning operations must be performed after setting the master switch to  and unplugging the machine from the power supply socket which is interlocked by a switch.

Do not clean or carry out any operation on moving parts.

The manufacturer accepts no liability for any injury to persons or damage to things resulting from failure to observe the above precautions.

USE PLASTIC TOOLS ONLY TO REMOVE SCALE OR SIMILAR. NEVER USE METAL TOOLS OR ABRASIVE PRODUCTS.

CLEANING

ONCE A DAY: clean the bowl, the tool and the protective grid, i.e. the stainless steel elements in the Food Area.

Use plastic tools or clean with a cloth soaked in water. Never use metal tools and/or abrasive products.

ONCE A MONTH: clean the control panel and the painted parts using warm water (max 40°C).
Never use metal tools and/or abrasive products.

ONCE A YEAR: general cleaning of the machine.

Ref. no.	Elements / parts to be cleaned	Equipment required	Detergents	What to do?
ONCE A DAY				
1	Bowl	Spatula / cloth	Water	
2	Tool (spiral arm)	Spatula / cloth	Water	
3	Bowl protection	Spatula / cloth	Water	
ONCE A MONTH				
4	Control panel	Spatula / cloth	Water	
5	Painted parts	Spatula / cloth	Water	
ONCE A YEAR				
6	Remove the covers and extract any dust/flour from the inside.	Vacuum cleaner	/	

Key

Manual cleaning	
Cleaning with vacuum cleaner	

SECTION B POINT 6

MAINTENANCE AND CHECKS

FOR CORRECT OPERATION AND LONG LIFE OF THE MACHINE, FOLLOW THE MAINTENANCE PROGRAMME BELOW.

IMPORTANT !

All cleaning operations must be performed after setting the master switch to 00 and unplugging the machine from the power supply socket which is interlocked by a switch.

- Do not manually clean, oil or lubricate the moving parts and elements of the machine.
- Do not perform any operation, repair or adjustment on moving parts.

The manufacturer accepts no liability for injury to persons or damage to things resulting from failure to observe the above instructions, tampering with the protections and safety devices fitted on the machine and/or inappropriate use of the machine.

ROUTINE MAINTENANCE AND CHECKS

These operations and checks are very simple and can therefore be performed by the user, following the instructions given below:

ONCE A DAY: check that the protections and safety devices are in efficient working order by operating and visually inspecting them.

WHEN NECESSARY:

- check the drive belt tension
- adjust the bowl lifting slide blocks and lubricate with grease

EXTRAORDINARY MAINTENANCE AND CHECKS

Due to their delicate and complex nature, extraordinary maintenance and checks must be performed by the manufacturer or qualified/specialist personnel.

WHEN NECESSARY: replace worn parts and/or broken elements, check and adjust protections and safety devices.

The power supply cable must be replaced as soon as the outer insulation becomes damaged.

ONCE A YEAR: check and control the condition and efficiency of the machine, protections and safety devices, if necessary replacing worn parts and/or broken elements, performing adjustments etc. Carry out electrical tests to check the condition of the electrical insulation and continuity tests on the protection circuit.

N.B.: original spares must be used when replacing parts.

CAUTION !



Disconnect the power supply before working on any electrical component or on the control panel.

SECTION B POINT 6

MAINTENANCE AND CHECKS

ROUTINE AND EXTRAORDINARY MAINTENANCE

Routine maintenance is very simple and can be performed by the user whereas **extraordinary** maintenance, due to its delicate and complex nature, must be carried out by the manufacturer or qualified/specialist personnel.

		ROUTINE MAINTENANCE What to do?	EXTRAORDINARY MAINTENANCE What to do?
ONCE A DAY			
▪	Check that the protections are in efficient working order.		
▪	Check safety devices.		
WHEN NECESSARY			
▪	Adjust drive belt tension (instructions and figures follow).		
▪	Grease bowl lifting system.		
▪	Replace worn parts or broken elements.		
▪	Check and adjust protections and safety devices.		
▪	The power supply cable must be replaced as soon as the outer insulation becomes damaged.		
ONCE A YEAR			
▪	General checks and controls on the condition and efficiency of the machine, protections and safety devices.		
▪	Replace worn parts and/or broken elements if necessary.		
▪	Adjust if necessary.		
▪	Electrical tests to check the condition of the electrical insulation.		

Key

Tighten belts	
Replace	
Inspect/check	
Adjust	
Grease	

SECTION B POINT 7

REPLACING WORN PARTS

For reasons of safety, it is essential to read and observe the IMPORTANT WARNINGS ! given below before carrying out any work on the machine.

IMPORTANT WARNINGS !

- These operations must be carried out by the manufacturer's skilled personnel or authorised qualified after-sales service centres.
- Before carrying out any operation, unplug the machine from the socket which is interlocked by a switch.
- Pay attention to residual voltage, in particular for the capacitors.

To order spare parts, refer to Section D.

SECTION C POINT 1

EMERGENCY SITUATIONS

EMERGENCY SITUATIONS

If the machine is used correctly and as prescribed by this instruction manual, emergency situations during operation or cleaning and maintenance cannot occur.

In the event of imminent mechanical danger, press the emergency button and then immediately unplug the machine from the socket which is interlocked by a switch. The fault must then be identified, after which the machine can be re-started and the protections re-fitted. If necessary, contact the manufacturer's after-sales service or qualified personnel for the above operations.

If you notice current dispersion when you touch the metal parts of the machine, immediately unplug the machine from the socket, interlocked by a switch, and call an electrician or the manufacturer's after-sales service.

SECTION C POINT 2

DECOMMISSIONING - SCRAPPING

DECOMMISSIONING

If the machine has to be temporarily decommissioned for any reason, it must be unplugged from the socket, which is interlocked by a switch, cleaned as described in Section B point 5 and covered to protect it from dust.

To re-start, follow the start-up instructions (Section B point 3).

SCRAPPING

For scrapping, the machine must be removed from its place of work and withdrawn by the manufacturer or dealer. If the user wishes to scrap it independently, he should bear in mind that the various materials, e.g. metals of various types, rubber, plastic, oil etc. must be disposed of in compliance with the industrial and special waste regulations, i.e. by sorting them and consigning them to specialist environment-friendly waste disposal firms.

SECTION D POINT 1

HOW TO ORDER SPARE PARTS

The following information must always be provided when ordering spare parts:

- Machine serial number (on machine identification plate)
- Part code
- Quantity required
- Year of manufacture of the machine (on machine identification plate)
- Shipment method required
- Address of purchaser

SECTION D POINT 2

HOW TO CHOOSE SPARE PARTS

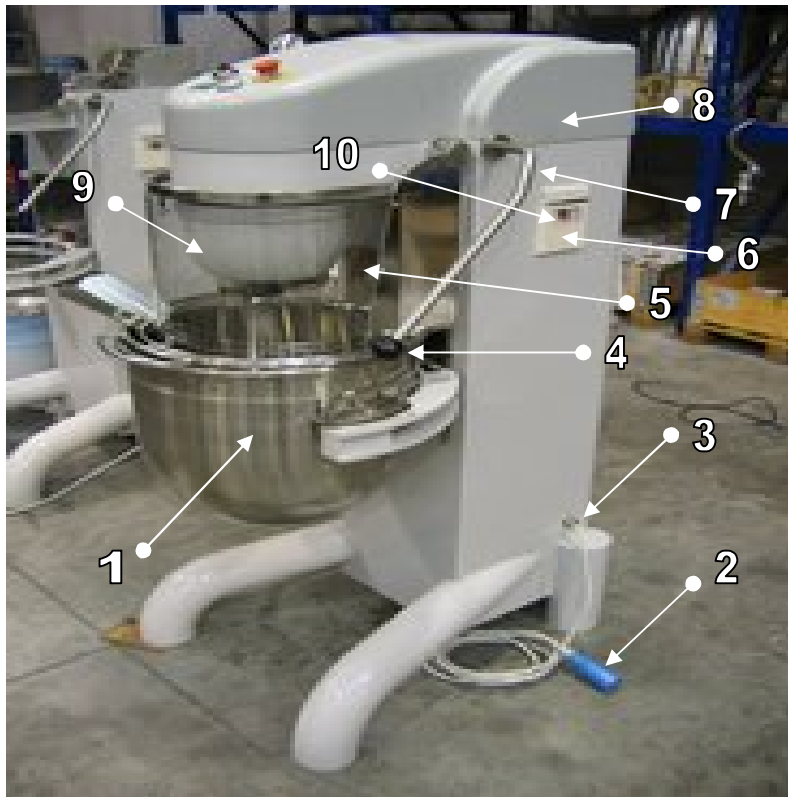
Identify the part to be ordered in the assembly drawings.

Note the reference code, page, edition of the manual or date on the cover.

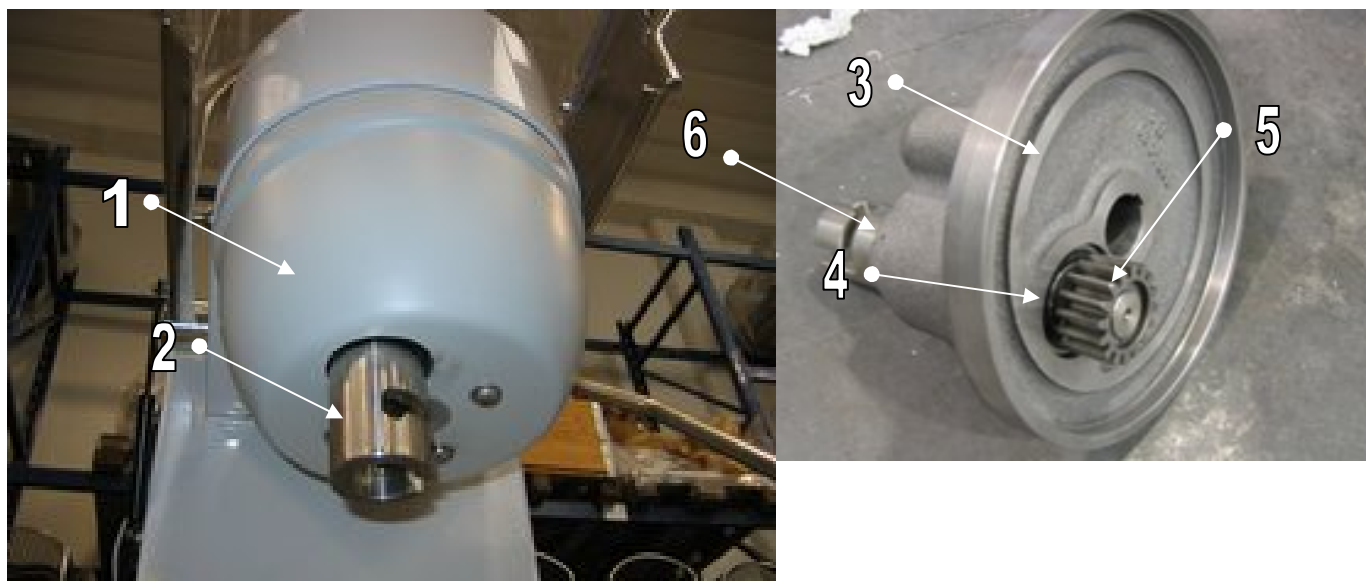
All technical information given in this manual is intended as a guide only. The manufacturer reserves the right to make changes at any time without notice.

SECTION D POINT 3

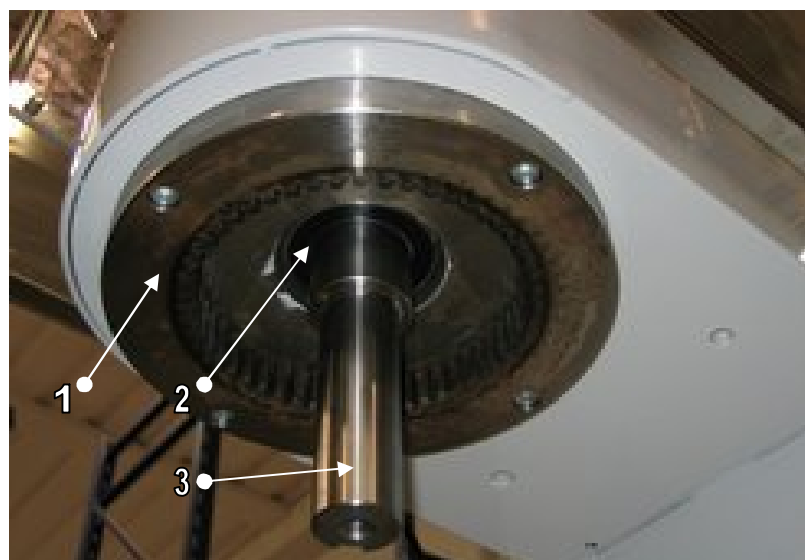
SPARE PARTS LIST



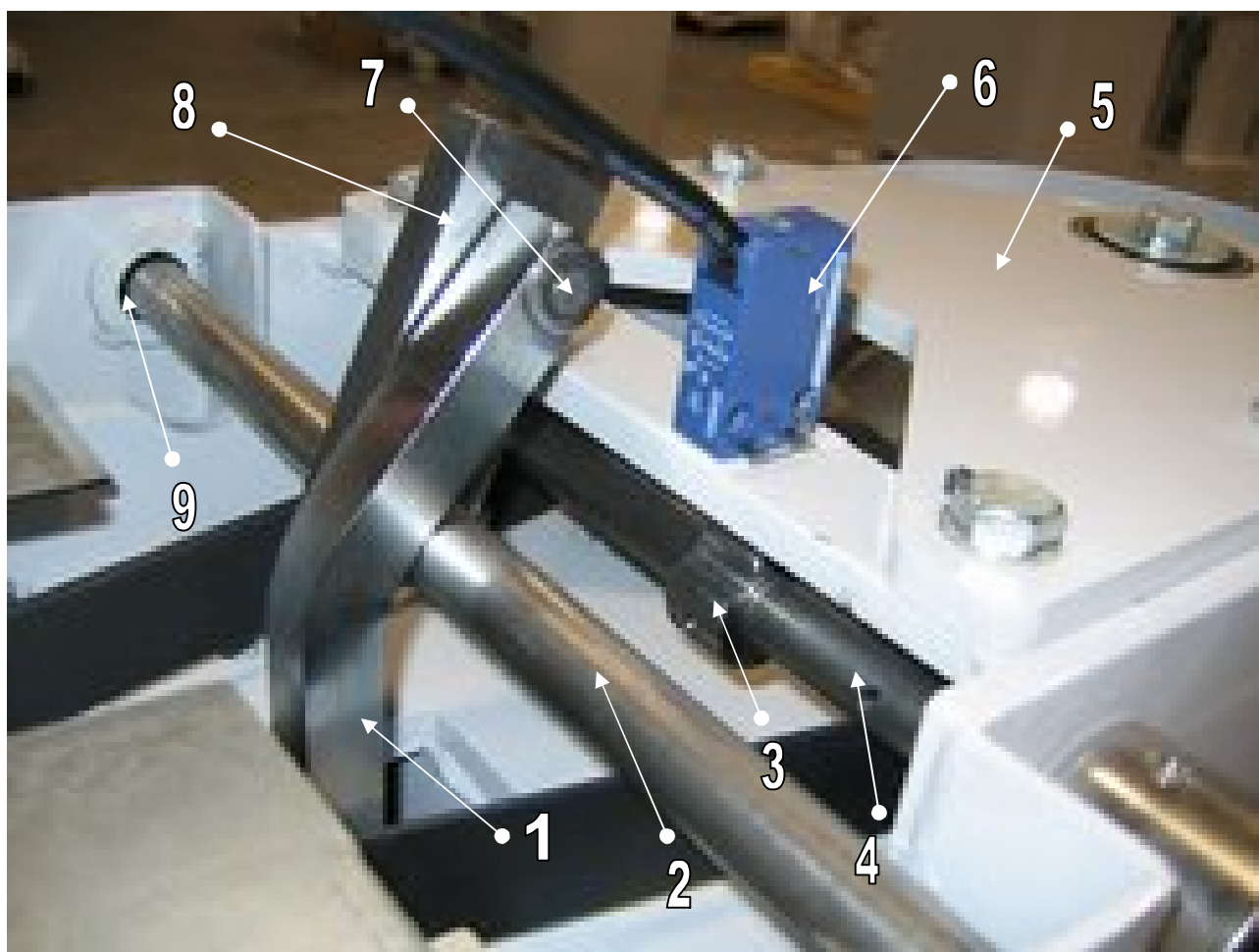
Ref.	CODE	DESCRIPTION	Ref.	CODE	DESCRIPTION
1	VA TK 40 400	bowl 40 Lt	9	01 03 241	Plastic safety grid 40 Lt
	VE TK 60 600	bowl 60 Lt		01 03 242	Plastic safety grid 60 Lt
2	08 05 228	Red socket 3P + hearth	10	08 05 174	switch
	08 05 235	bleu socket 2P + hearth			
3	08 05 223	Cable plug			
4	01 03 164	Boule end handle			
5	LU TKE 40009	Safety grid 40 Lt			
	LU TKE 60009	Safety grid 60 Lt			
6	08 05 182	Switch box			
7		structure			
8	01 03 240	Thermoformed ABS cover			



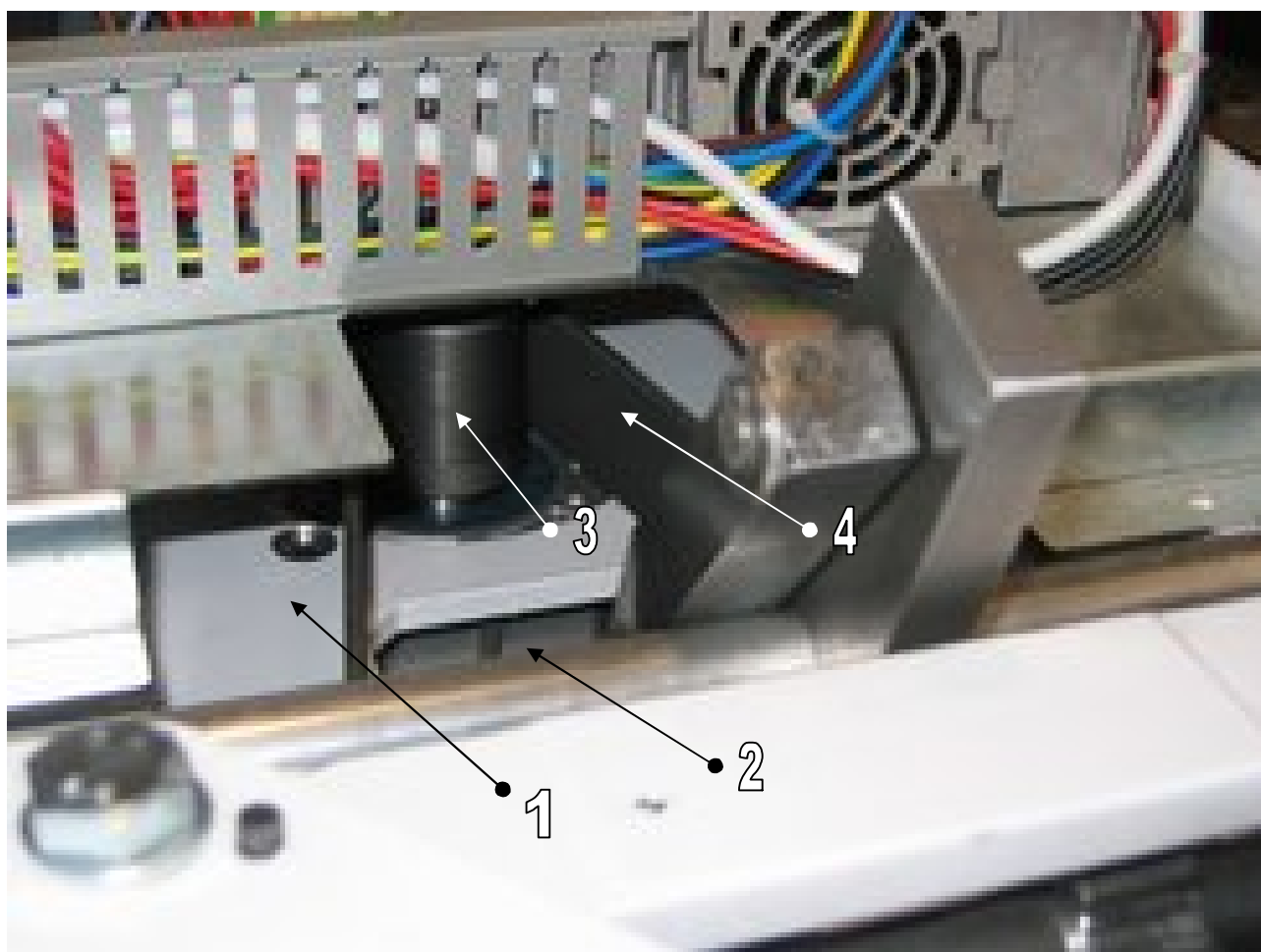
Ref.	CODE	DESCRIPTION	Ref.	CODE	DESCRIPTION
1	01 03 226	Wheel cover 40 Lt	4	04 01 018	bearing 40 Lt
	01 03 227	Wheel cover 60 Lt		04 01 022	bearing 60 Lt
2	01 01 805	Tool shaft 40 Lt	5	FR 01 01 325	Tool gear 40 Lt
	01 01 776	Tool shaft 60 Lt		FR 01 01 343	Tool gear 60Lt
3	FR 03 01 097	wheel 40 Lt	6	04 01 017	bearing 40 60 Lt
	FR 03 01 099	wheel 60 Lt			



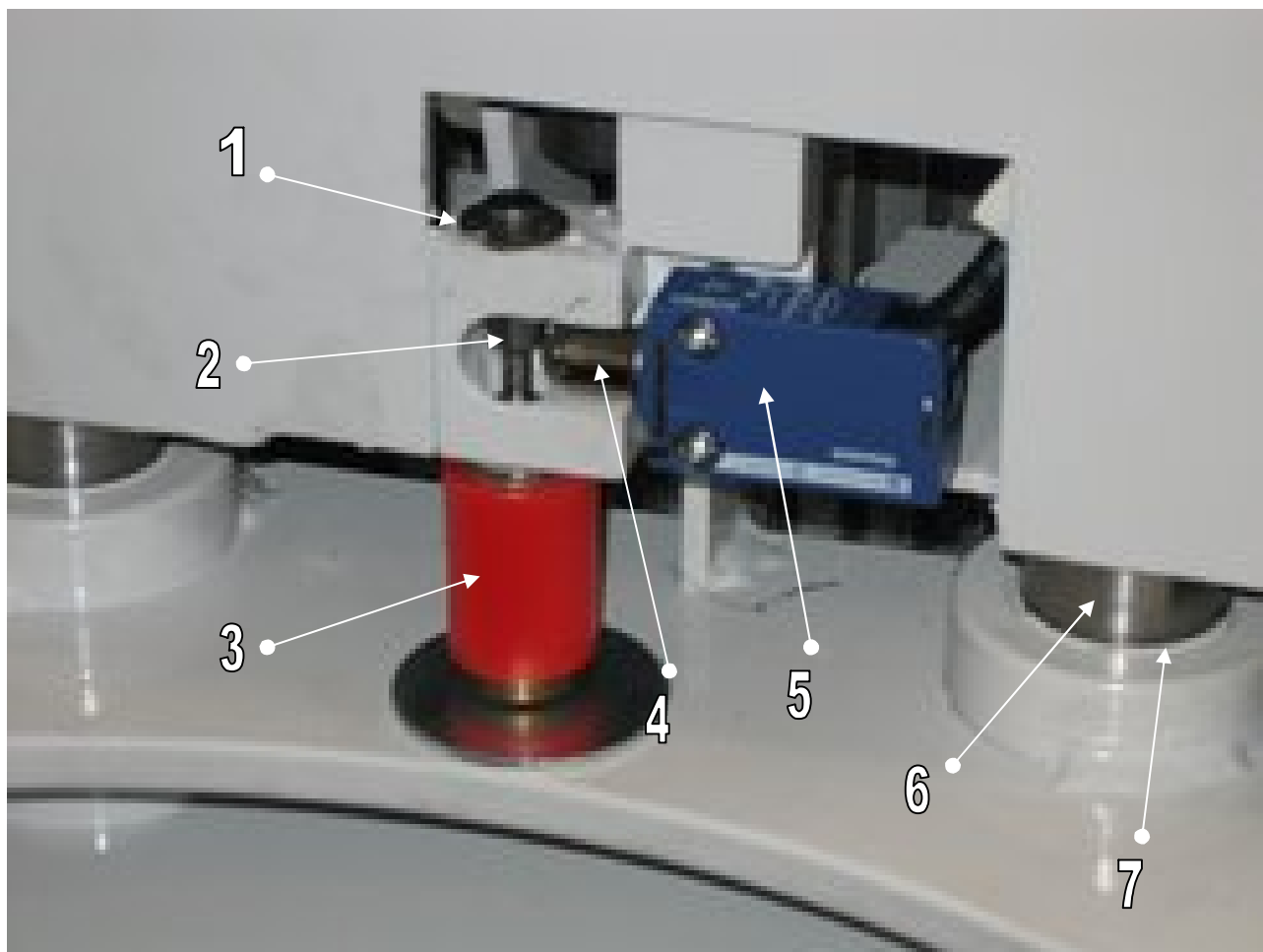
Ref.	CODE	DESCRIPTION	Ref.	CODE	DESCRIPTION
1	TT 01 01 329	Inside toothed wheel 40 Lt	3	01 01 1089	Central shaft 40Lt
	TT 01 01 342	Inside toothed wheel 60 Lt		01 01 1090	Central shaft 60Lt
2	04 01 020	bearing			



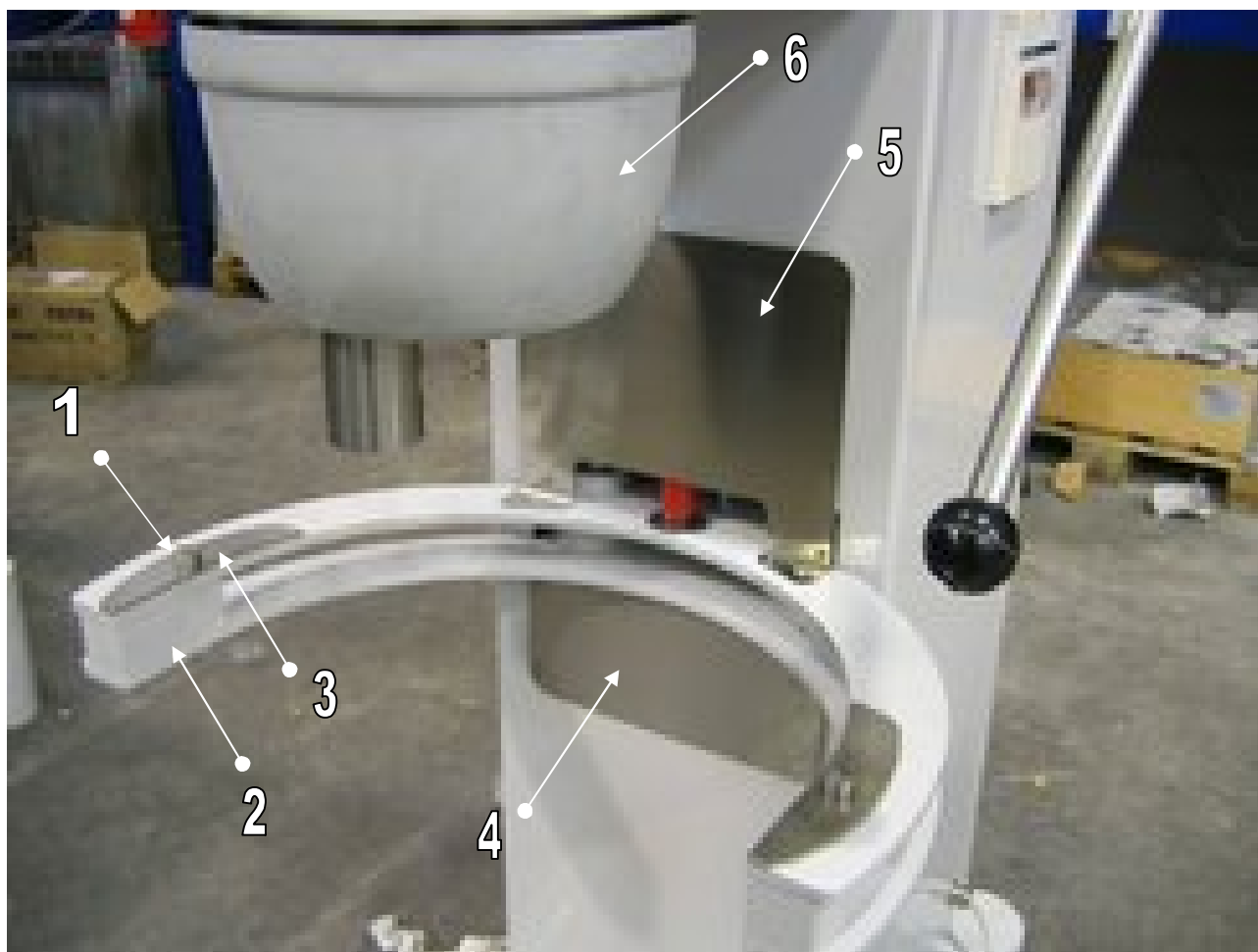
Ref.	CODE	DESCRIPTION	Ref.	CODE	DESCRIPTION
1	17 04 005	Hoisting rod 60 Lt			
2		Hoisting lever			
3	01 01 448	Cam microswitch			
4		Bowl rotation pin			
5	VEFRTKE400 04	Shaft support			
6	08 05 344	Microswitch body			
		Threated microswitch head			
7	01 01 450	Hositing lever plug			
8	13 31 001	Hoisting tie-rod			
9	04 20 005	Self-lubricating washer			



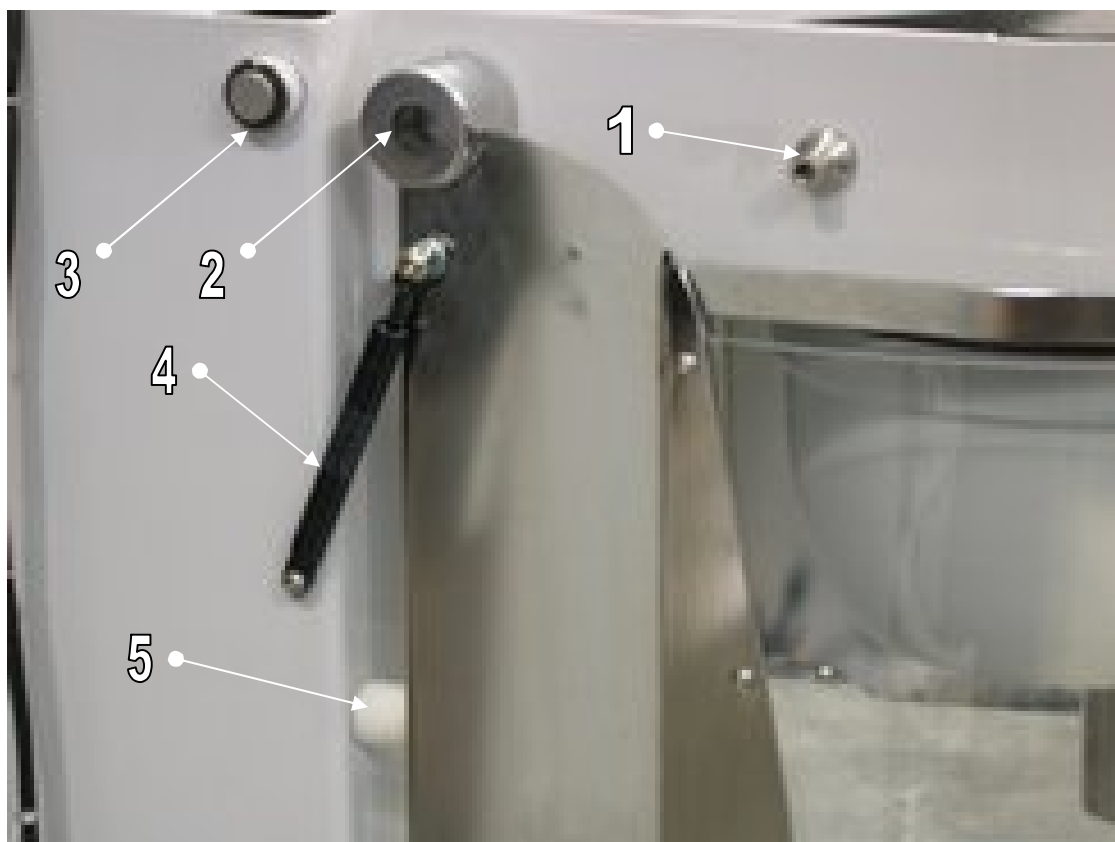
Ref.	CODE	DESCRIPTION	Ref.	CODE	DESCRIPTION
1	VE 19 34 007	Motor support			
2	08 01 070	motor			
3		Motor pulley			
4	05 25 015	Transmission belt			



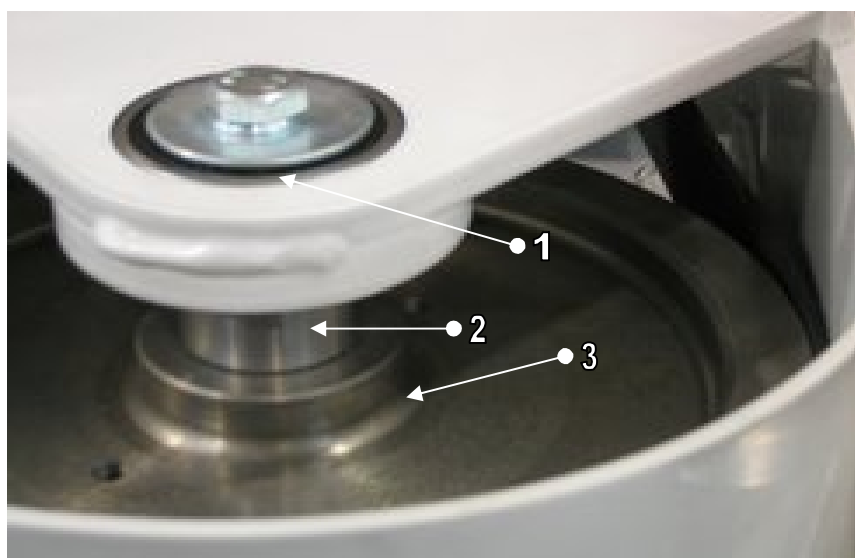
Ref.	CODE	DESCRIPTION	Ref.	CODE	DESCRIPTION
1	04 20 016	Self-lubricating washer	7		Self-lubricating washer
2		Bowl stopper pin	8		
3		Bowl stopper	9		
4	08 05 345	Microswitch pin	10		
5	08 05 344	Microswitch body	11		
6		Arm displacement shaft	12		



Ref.	CODE	DESCRIPTION	Ref.	CODE	DESCRIPTION
1	01 01 449	Bowl centering pin	6	01 03 227	Wheel protection 60 Lt
2	VE TKE 60003	Hoisting arm 60 Lt		01 03 226	Wheel protection 40 Lt
	VE TKE 40003	Hoisting arm 40 Lt			
3	19 13 093	Bowl supportino plate 60 Lt			
	19 13 085	Bowl supportino plate 40 Lt			
4	19 17 216	Lower safety panel 40 60 Lt			
5	19 17 215	Panel behind bowl 60 Lt			
	19 17 214	Panel behind bowl 40 Lt			



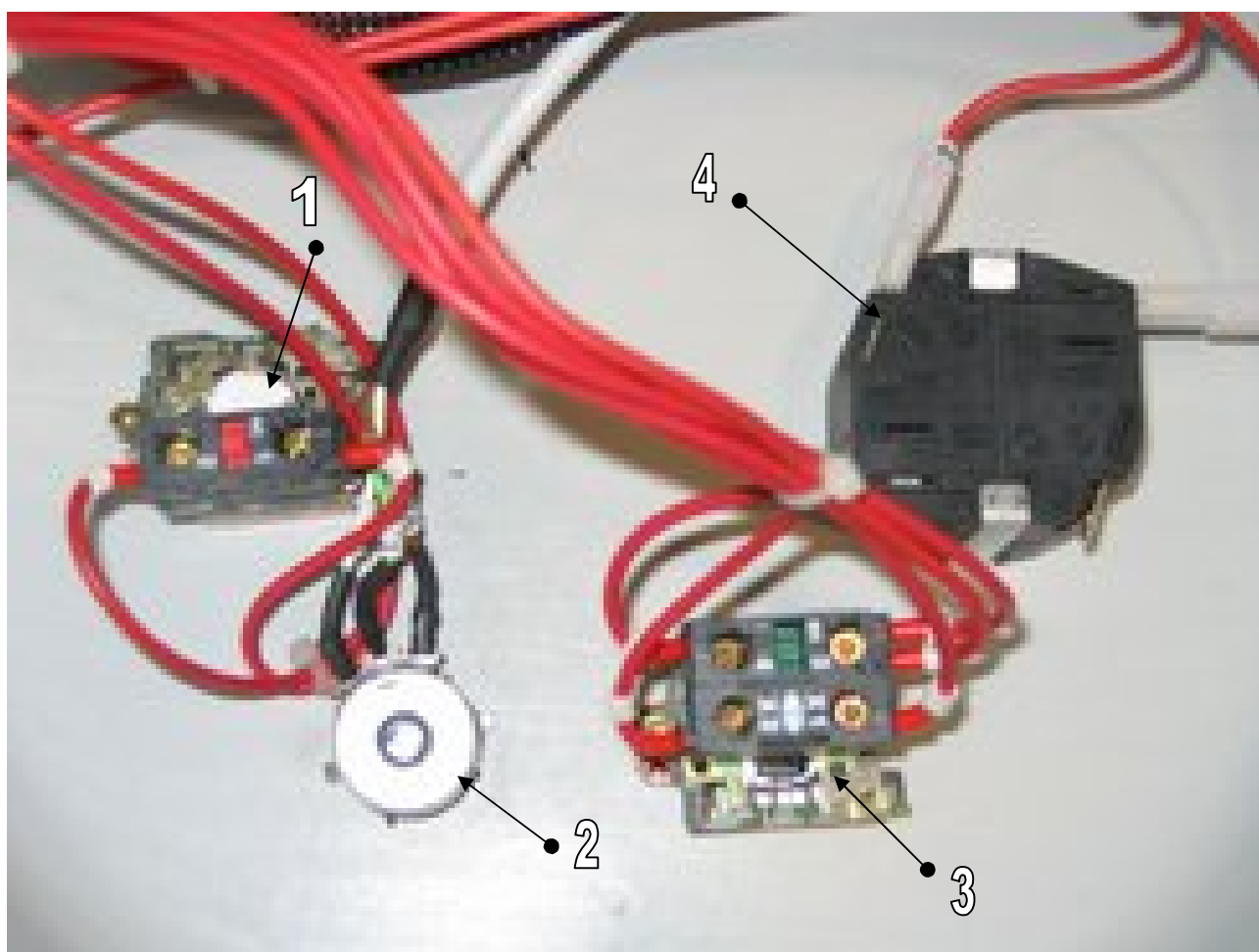
Ref.	CODE	DESCRIPTION	Ref.	CODE	DESCRIPTION
1	01 01 451	Safety grid stopper	5		Grid stopper
2	01 03 084	Plastic screw cover			
3		Hoisting shaft washer			
4	18 06 004	Gas spring			



Ref.	CODE	DESCRIPTION	Ref.	CODE	DESCRIPTION
1	04 02 004	bearing			
2		Pulley spacer			
3	05 01 031	pulley			
4					



Ref.	CODE	DESCRIPTION	Ref.	CODE	DESCRIPTION
1	01 03 222	Comands label VV 40 Lt	6	08 11 002	timer
	01 03 235	Comands label 3V 40 Lt	7	08 05 199	Light holder
	01 03 223	Comands label VV 60 Lt			
	01 03 236	Comands label 3V 60 Lt			
2	08 05 032	Light			
3	01 01 749	Button potentiometer			
4	01 03 086	Black cap			
5	08 05 195	Red mushroom			



Ref.	CODE	DESCRIPTION	Ref.	CODE	DESCRIPTION
1	08 05 203	contacts	3	08 05 198	contacts
2	08 05 297	potentiometer	4	08 11 001	Timer

Ref.	CODE	DESCRIPTION	Ref.	CODE	DESCRIPTION
1		transformer		08 05 248 1	Inverter 380 V
2		Cutoff switch			
3		contact			
4	08 05 253 1	Inverter 220 V			

