

CombiSteel

CATERING EQUIPMENT

INSTRUCTIONS MANUAL

SPIRAL MIXERS

7485.0078, 7485.0080, 7485.0085, 7485.0090,
7485.0095, 7485.0100 & 7485.0110



This manual is intended to provide the technical elements for correct use, correct operation and correct maintenance of the machine.


The user has the duty and responsibility to apply them and follow them.

Together with the description of the characteristics, the operation and maintenance of the machine, the aspects linked to ensuring safety and safeguarding the environment are particularly highlighted.

Before using the machine, and any time its consultation is necessary, it is important to read this manual. Carefully comply with the technical instructions contained within and strictly follow the instructions its outlines. For operator safety, the machine devices must always be in an efficient state.

This manual, an integral part of the machine, must be kept in an accessible location known to all operators and made available to staff responsible for any maintenance or repair operations.

WARNINGS

THE SYMBOL  REFERS TO SAFETY WARNINGS FOR OPERATORS, USERS AND MAINTENANCE STAFF OF THE EQUIPMENT FOR LIFTING



CAREFULLY KEEP THIS BOOKLET FOR ANY FURTHER CONSULTATION



USE THE MACHINE IN COMPLIANCE WITH THE INSTRUCTIONS AND USE LIMITATIONS SPECIFIED BY THE MANUFACTURER.



INSTALLATION MUST BE CARRIED OUT ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND BY SPECIALIST AND COMPETENT STAFF



FOR ANY REPAIRS, CONTACT THE MANUFACTURER ONLY



NON-COMPLIANCE WITH THE ABOVE WILL COMPROMISE THE OPERATOR'S SAFETY

WARRANTY

Guaranteed for **1 year** from date of purchase. Parts of the machine found to be a production defect except electrical components or parts worn out, will be changed and serviced free by us in our firm but only ex our factory within this period. Delivery costs of labour are excluded from the warranty.

The warranty will not be valid when the damage is due to: transportation, mistaken or insufficient maintenance, unskilled operators, damaging, repairs made by unauthorized personnel, non-observance of the instruction of the manual.

All reimbursements from the manufacturer are excluded for direct or indirect damages caused in the time the machine is inactive for the following reasons: breakdown, waiting to be repaired, or anyway the non-presence of the machine.

CONTENT

WARNINGS

page 4

01 Safety principles and advice for safe work

02 Residual risks

CHARACTERISTICS

page 6

01 Description of the machine

02 Use limitations

03 Technical characteristics

04 Wiring diagrams

ENVIRONMENTAL NOTES

page 10

01 Noise

02 Packaging

03 Disposal

04 Placing out of service

INSTALLATION

page 11

01 Delivery

02 Positioning

03 Installation

04 Connections

FUNCTIONING

page 13

01 Safety devices present

02 Commands

03 Commands sequence for machine start-up

04 Commands sequence for machine switch-off

05 Functioning anomalies

06 Use of machine

MAINTENANCE

page 18

01 Cleaning and maintenance of the machine

SPARE PARTS

page 20

WARNINGS

1_SAFETY PRINCIPLES AND ADVICE FOR SAFE WORK

1. Read this instructions manual carefully before starting the machine and each time you have a doubt about its operation. The best safety possible is in your hands. Using any type of machine involves risks: you should keep this in mind. Diffuse and make its content known to the relevant people.
2. Only use the machine inside buildings.
3. Pay attention before starting any work.
4. Only work with all guards planned in their place and working perfectly. Avoid placing hands near moving parts.
5. It is strictly forbidden to by-pass, remove, modify or make inefficient any safety device, guard or control on the machine, no matter where it is located. All safety devices and guards must be kept in perfect and constant efficiency.
6. Before operating the machine, ensure nobody is in the risk zones.
7. During the work cycle, operators must be kept outside the risk zones.
8. Do not leave the machine unguarded when on.
9. Never work on different materials, in quantity, shape or type, to that planned for the machine in the design phase.
10. It is strictly forbidden for anyone to use the machine for use other than its expressly intended and documented use.
11. Completely stop the machine before proceeding with its cleaning and before removing any guards to carry out maintenance.
12. During the research and removal phase of any cause of malfunction or inconvenience relating to the machine, implement all the suitable precautions to prevent any damage to people or property. Cut electrical power (sectioning the machine from the electrical mains) before accessing the guards.
13. At the end of any intervention that leads to removal or by-passing of any safety related part (barriers, sensors, guards, etc.), restore and ensure correct positioning and efficiency.
14. Do not allow unauthorized and qualified staff to operate, adjust or repair the machine. Always refer to this manual for the necessary operations.
15. The electricity supply system must have an automatic release system upstream of the main switch on the machine and a suitable earthing system that meets all the industrial standard requirements for accident prevention.
16. If you have to work on the main switch or near it, cut power to the line on which the main switch is connected. All controls and maintenance operations requiring removal of safety guards must be carried out by specialist and authorized technical staff.
17. Pay utmost attention to the plates on the machine each time you work on it or nearby.
18. It is compulsory for the user to always keep the plates legible.
19. In the event of machine malfunctions or damage to parts, contact the maintenance manager, without proceeding with further repair work.
20. Never carry out repairs in a hurry or leave repairs incomplete which could compromise good functioning of the machine.
21. Any tampering by the user relieves the manufacturer of any liability and makes the user solely responsible for the competent bodies for accident prevention.
22. These safety standards integrate and do not replace the safety standards in force in the place of machine installation.

2_RESIDUAL RISKS

1. LOADING, UNLOADING AND MOVEMENT OF THE MACHINE	<input type="checkbox"/> Machine falls <input type="checkbox"/> Packaging falls	<input type="checkbox"/> Handle the machine carefully, packaged or not.
2. WRONG MACHINE INSTALLATION	<input type="checkbox"/> Electrical discharges <input type="checkbox"/> Lightning strike	<input type="checkbox"/> The mains voltage and frequency as outlined on the machine plate. <input type="checkbox"/> The power socket must be connected to the earthing. <input type="checkbox"/> The electricity supply line of the machine, upstream of the socket must be equipped with protection using a differential switch, coordinated with the main earthing system.
3. CLOSURE PANELS, CHAMBERS IN WHICH VOLTAGE IS PRESENT	<input type="checkbox"/> Electrocution	<input type="checkbox"/> Do not open the panels without disconnecting the plug in advance.
4. WORK WITHOUT GUARDS	<input type="checkbox"/> Electrocution <input type="checkbox"/> Catching <input type="checkbox"/> Crushing <input type="checkbox"/> Abrasion	<input type="checkbox"/> Do not remove the guards during machine use.
5. CLEANING THE PARTS IN CONTACT WITH THE MIXTURE	<input type="checkbox"/> Electrocution <input type="checkbox"/> Electrical discharges <input type="checkbox"/> Lightning strike	<input type="checkbox"/> The machine must always be cleaned when it is off, without mains power (cut mains voltage, i.e. disconnect the plug).

CHARACTERISTICS

1_DESCRIPTION OF THE MACHINE

The electric spiral mixer, model **IBM/IBT/IMR/ITR**, produced in versions "5", "10", "15", "20", "30", "40", "50", was designed to blend both soft and hard mixtures (mix and/or knead), made of flour, salt, yeast, fats and liquids (water, oil, eggs,...) exclusively for foodstuff use.

Every mixer is composed of:

- A steel structure protected by a heat resistant varnish.
- The bowl, the spiral, the central dough-breaker and the protection grate are all in stainless steel.
- Chain drive with oil bath gear motor.
- The moving parts are on ball bearing.
- 4 castors, 2 of these with brake, in nylon.
- Operation with single-phase or three-phase motor, one speed; on request: three-phase motor with 2 speeds.
- Electric circuit fed by a cable to the network to which are connected at low tension (24V) the control devices to start, to stop, and of the safety devices. Among these internal blocking of the moving parts activated by the movement of the mobile protection of the pan.

The bowl and spiral rotate clockwise.

The machine, designed in compliance with European Directives, is built to safeguard the user from risks relating to its use. For this reason, the machine is equipped with specific guards to avoid risks due to contact with moving parts.

2_USE LIMITATIONS

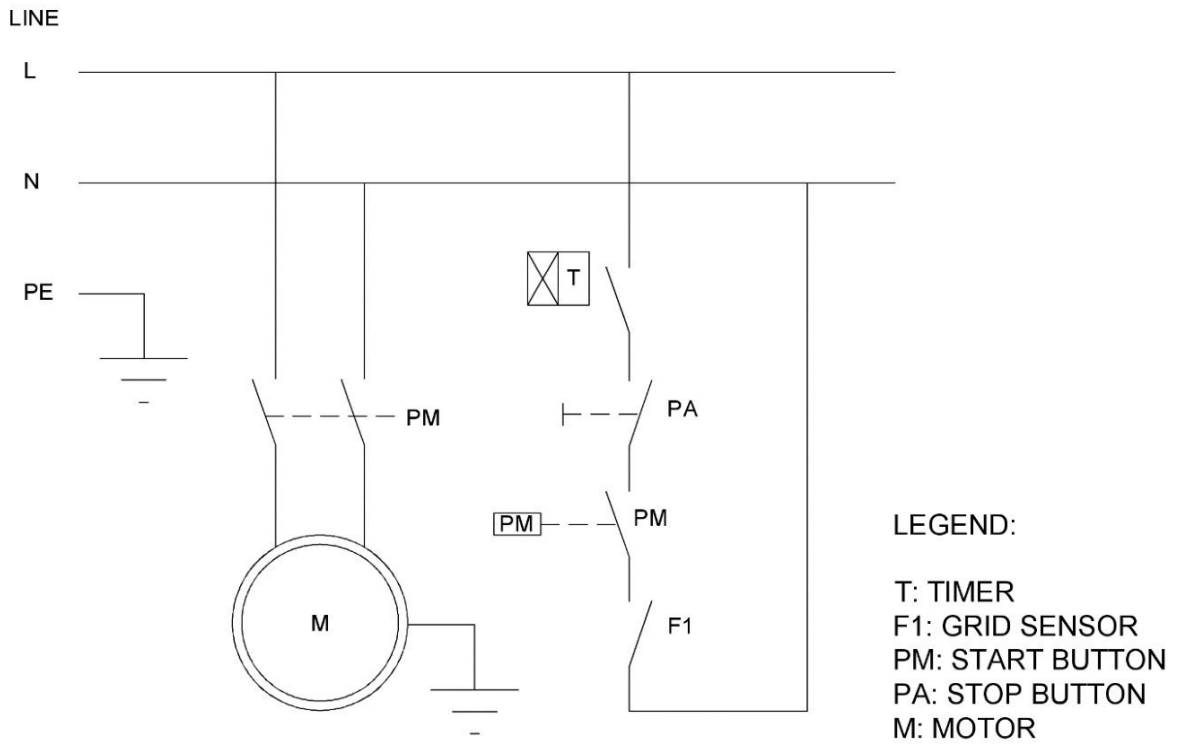
	7485.0078	7485.0080 7485.0100	7485.0085 7485.0110	7485.0090	7485.0095
PRODUCTION CAPACITY kg/h The data refer to a normal mix of ten/twelve minutes	35	56	88	112	128

3_TECHNICAL CHARACTERISTICS

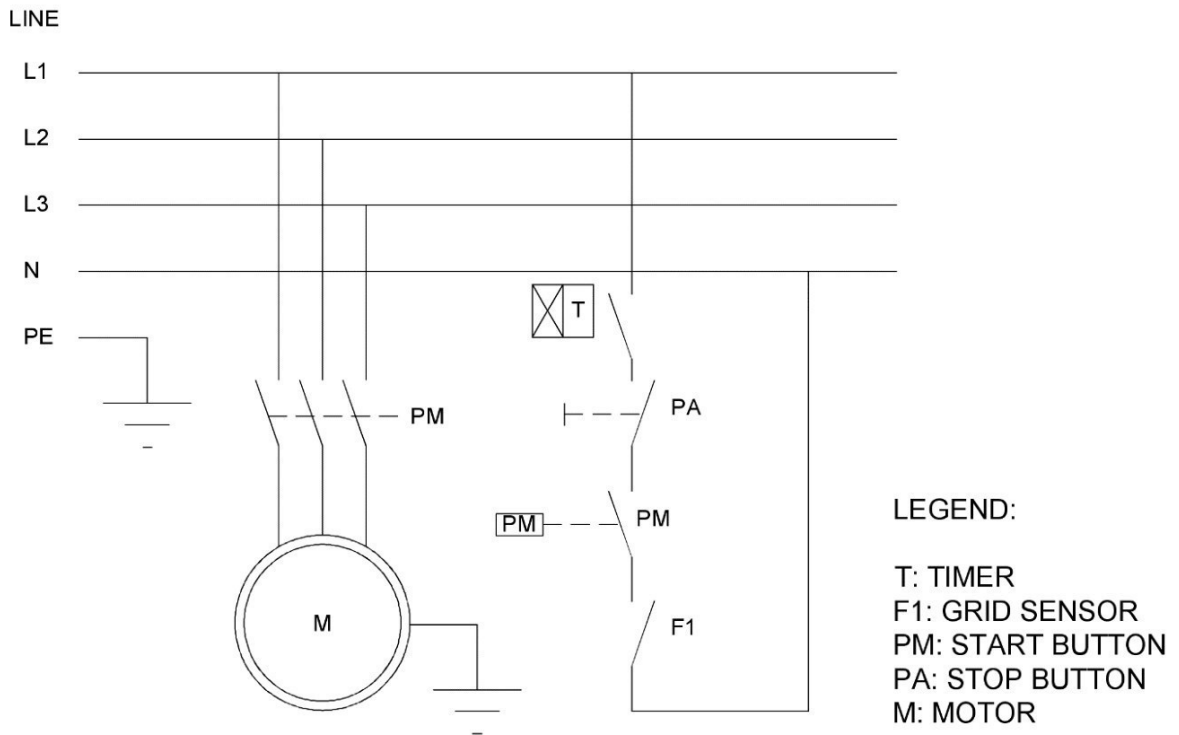
			7485.0078	7485.0080	7485.0085	7485.0090	7485.0095	7485.0100	7485.0110
BODY	HEIGHT	mm.	500	725	805	825	825	725	805
	WIDTH	mm.	260	385	424	480	480	385	424
	DEPTH	mm.	500	670	735	805	805	670	735
	NET WEIGHT	kg.	42	65	86.6	95.4	97.4	73	94.6
BOWL	DIAMETER	mm.	260	317-360	400	450	450	317-360	400
	HEIGHT	mm.		210	260	260	300	210	260
	PRODUCTION CAPACITY	kg.	8	12-17	25	35	42	12-17	25
	PRODUCTION CAPACITY	L.	10	15-22	32	41	48	15-22	32
THREE-PHASE MOTOR	POWER	kW	-	0.75	1.1	1.1	1.5	0.75	1.1
	VOLTAGE	V.	-	400	400	400	400	400	400
	FREQUENCY	Hz.	-	50/60	50/60	50/60	50/60	50/60	50/60
MONOPHASE MOTOR	POWER	kW	0,37	0.75	1.1	1.1	1.5	0.75	1.1
	VOLTAGE	V.	230	230/110	230/110	230/110	230/110	230/110	230/110
	FREQUENCY	Hz.	50/60	50/60	50/60	50/60	50/60	50/60	50/60
PACKAGING	HEIGHT	mm.	705	800	900	940	940	800	900
	WIDTH	mm.	625	430	480	540	540	430	480
	DEPTH	mm.	705	745	765	825	825	745	765
	GROSS WEIGHT	kg.	46	72	95	106	108	72	95
	VOLUME	m ³	0.17	0.25	0.32	0.41	0.41	0.25	0.32

WIRING DIAGRAMS - SPIRAL MIXER WITH FIXED HEAD AND BOWL

SINGLE PHASE MOTOR

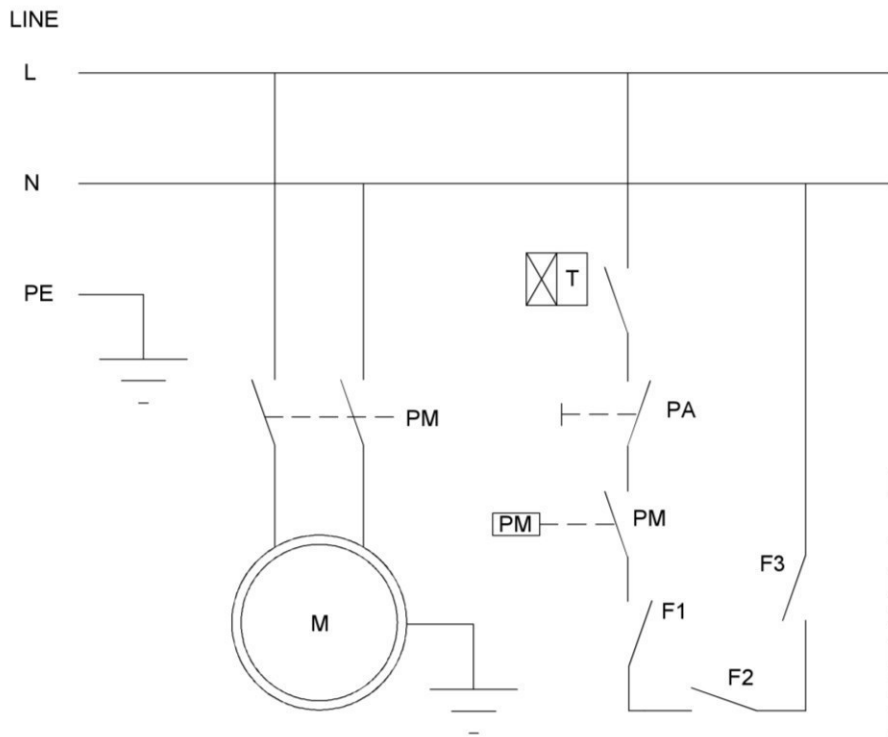


THREE PHASE MOTOR



WIRING DIAGRAMS - SPIRAL MIXER WITH RISING TOP AND REMOVABLE BOWL

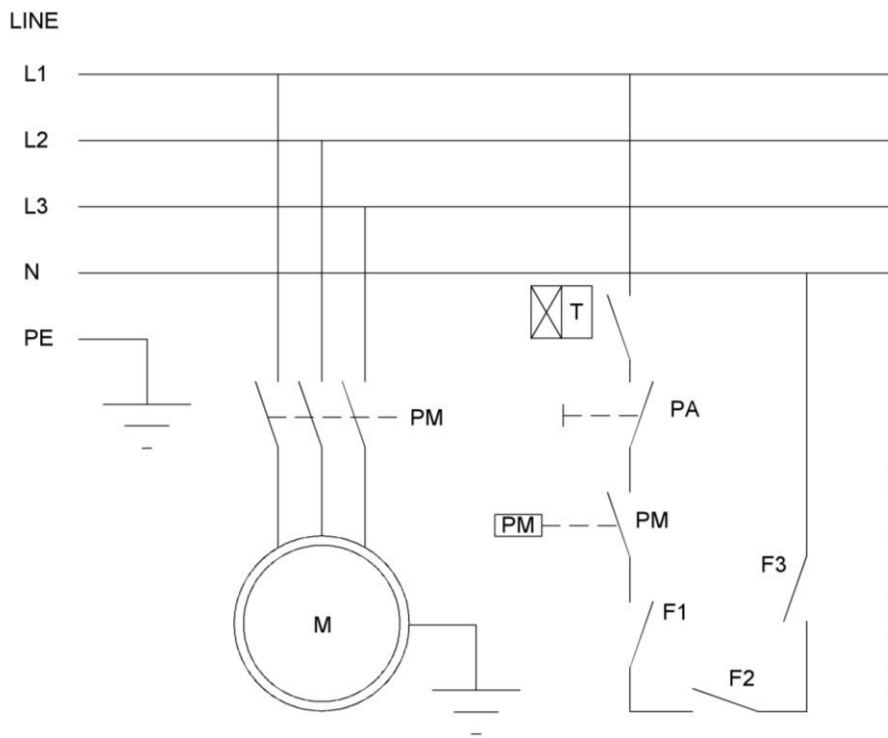
SINGLE PHASE MOTOR



LEGEND:

- T: TIMER
- F1: GRID SENSOR
- F2: TOP SENSOR
- F3: BOWL SENSOR
- PM: START BUTTON
- PA: STOP BUTTON
- M: MOTOR

THREE PHASE MOTOR



LEGEND:

- T: TIMER
- F1: GRID SENSOR
- F2: TOP SENSOR
- F3: BOWL SENSOR
- PM: START BUTTON
- PA: STOP BUTTON
- M: MOTOR

ENVIRONMENTAL NOTES

1_NOISE

The machine has a Lep valve lower than 80 dB(A).

If placed in environments with a noise level over 80 dB(A), the employer must inform and train the operator on the risks deriving from such exposure to noise and take adequate measures in agreement with the competent doctor.

2_PACKAGING

Do not throw any parts in the bin, but select them according to the type of material (e.g. paper, wood, plastic material, etc.) and dispose of them according to the local and national standards in force.

3_DISPOSAL

To dispose of the products, conservation, maintenance and cleaning of the machine, work in compliance with the local and national standards in force.

4_PLACING OUT OF SERVICE

At the end of the life of the machine, you need to:

- Disable the machine, disconnecting it from the electricity mains and cutting the power cable;
- Dismantle all the electrical/electronic material

Dismantle the parts, selecting them by type, and send them for scrappage or dispose of them according to local and national standards in force.

INSTALLATION

1_DELIVERY

On delivery, the use and maintenance manual is attached to the machine, and considered an integral part of the supply.

The machine is ready for use, in a single cardboard package on a pallet.

To lift the machine, you need a forklift or a trans pallet: insert the forks of the device used for lifting under the pallet. If the machine is lifted with ropes or belts, pass them under the pallet.

Take care to manage the box while keeping the part up as indicated on the packaging.

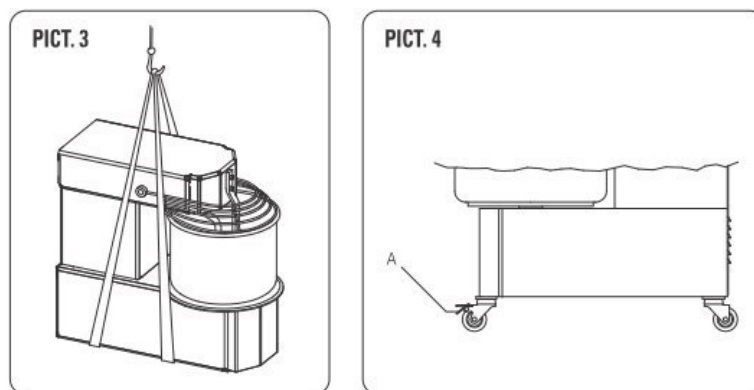
On receiving the package and its content, check for damage during transport. Write any defects found on the delivery document.

2_POSITIONING

The machine is supplied in a closed package and fixed with metal straps on wood.

After cutting the metal straps take out of the packaging and the plastic cover, then with the help of a proper belt put under the machine (PICT. 3) and a fork lift (manual or motor) lift the machine and take away the bottom pallet, position the machine making sure you leave a space around it of 50 cm to make usage, cleaning and maintenance easier. If the machine is unstable put under the feet or wheels pieces of hard rubber. If the machine has wheels make sure they have been blocked by pushing the lever A downwards till it blocks (PICT. 4).

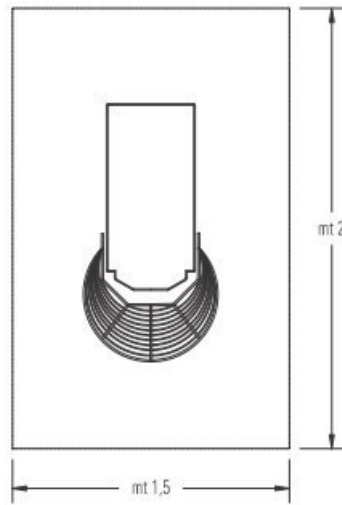
NOTE: ALL PACKAGING MUST BE DISPOSED OFF IN A LAWFUL WAY.



Before positioning the machine, ensure the work surface is horizontal.

The plug must be easily accessible, must not require any kind of movement. The cable from the machine to the wall plug must not be pulled tightly, also do not rest the machine on the cable.

In the normal working conditions and to have the best exploration of the potentiality of the machine, the operator needs the area represented in picture. Below:



3_INSTALLATION

The machine does not require any installation, other than connections when ready for use.
The machine must be connected to an electricity supply to work.

4_CONNECTIONS

Once positioned, connect the machine to the electricity mains, after:

- ensuring the power and frequency of the electricity mains corresponds to that indicated on the plate;
- be sure the power socket is connected to an earthing.
- having assembled the cable, by specialist and trained staff, the relevant plug 16 ÷ 32 A, for a 3 pole cable (Phase, Neutral and Earth) for the monophasic versions, and with 5 poles (2 Phases, Neutral, Earth) for the three-phase versions.

The manufacturer states that the electrical power supply line of the machine is equipped, upstream of the machine, with protection via the differential switch, coordinate with the general, earthing switch, in compliance with the local and national standards in force.

Check the guards on the machine are present and assembled before activating the machine.

Also check the spiral and the bowl both rotate in a clockwise direction: if this is not the case, invert the arrangement of the phases.

If using the machine for the first time, clean it as described in the specific point.



CONNECT THE MACHINE ONLY TO THE BRANCHES OF THE ELECTRICAL SYSTEM INDIVIDUALLY PROTECTED



REFER TO THE ELECTRICITY STANDARDS OF THE COUNTRY IN WHICH THE MACHINE WAS INSTALLED

(FOR ITALY REFER TO L.D. 46/90)



DO NOT REMOVE THE GUARDS DURING MACHINE USE.

FUNCTIONING

1_SAFETY DEVICES PRESENT

The machine is equipped with adequate safety devices made of fixed guards, and an adequate distance between the bowl and the machine casing, with the scope of avoiding contact of parts of the human body (upper limbs) with the rotating bowl during the work phase, to eliminate the risks of dragging or crushing.

The machine is equipped with a lid sensor on the open bowl, with the scope of avoiding contact of parts of the human body (upper limbs) with the moving parts during the work phase, to eliminate risks of dragging, crushing and abrasion.



DO NOT REMOVE THE GUARDS DURING USE OF THE MACHINE. THE MANUFACTURER CANNOT BE HELD IN ANY WAY LIABLE FOR NON-COMPLIANCE WITH THE AFOREMENTIONED INSTRUCTIONS.

With reference to Figure 8, the guards are:

I – Moving protection grate

L – Device proving that the top and the protection cover are up or down (only on tilting head mixers)

M,M1 – Check pin of the top (down position, only on tilting head mixers)

N – Device proving that the bowl is in or out (only on tilting head mixers)

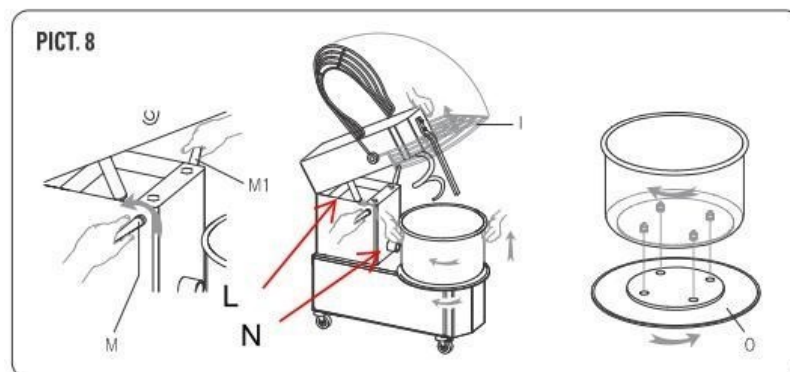
O – Blocking disk of the bowl (only on tilting head mixers)



WARNING

The single safety device are efficient when:

- On raising the protection I (PICT. 8) the machine stops.
- On raising the top and/or taking off the bowl the machine does not start (only on mixers with tilting head).
- On softly pulling either the bowl or the top they do not move (only on mixers with tilting head).



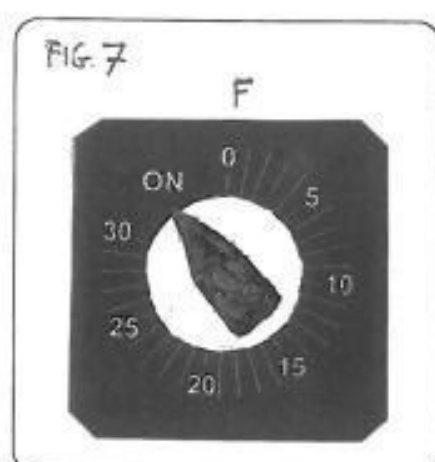
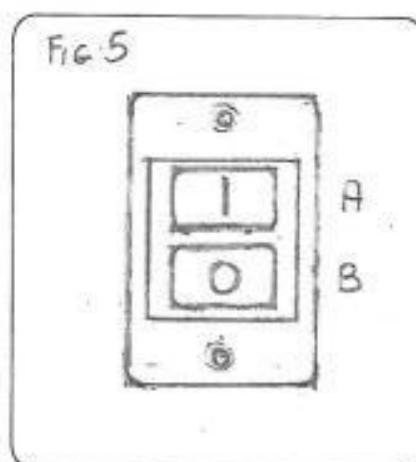
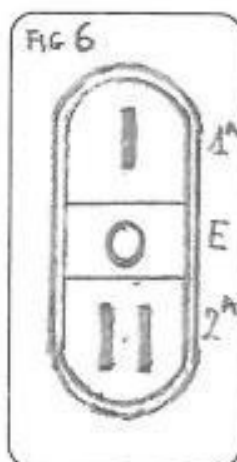
Before operating the machine, the protection I (PICT. 9) must be completely lowered. For tilting head mixers it must be checked that the bowl is correctly inserted and blocked by the disk 0 and that the top is down and blocked by the check pin M (this must be completely inserted).

After inserting the plug the machine is ready for use.



2_COMMANDS

COMMAND	ACTION	POSITION
<i>MONOPHASE AND THREE-PHASE MIXERS (FIG. 5)</i>		
A) ON button	Activates (1) movement of the rotating parts.	Side of machine
B) OFF button	Stops (0) movement of the rotating parts.	Side of machine
F) Timer	Enables activation of the machine in continuous mode (timer ON position), or timed.	Side of machine
<i>TWO SPEED THREE-PHASE MIXERS (FIG. 6)</i>		
1a) Button I	Activates movement of the rotating parts at first speed.	Side of machine
2a) Button II	Activates movement of the rotating parts at second speed.	Side of machine
E) Button O	Stops movement of the rotating parts.	Side of machine
F) Timer	Enables activation of the machine in continuous mode (timer ON position), or timed.	Side of machine



3_SEQUENCE OF COMMANDS FOR MACHINE START-UP

START-UP SITUATION WITH MACHINE OFF

To start work, starting with a situation with the machine off, you need to:

- rotate the protection differential switch to the ON position, coordinated with the main earthing system, placed upstream of the machine in the user's system.
- rotate the timer knob to the ON position (to the left) for the continuous cycle, or in the opposite position (to the right), and select the work minutes desired for the timed cycle.
- press Button 1 that activates rotation of the bowl and the spiral.

START-UP SITUATION WITH MACHINE POWERED

To re-start work, following suspension of the work, press button 1 having restored the safety present.

START-UP SITUATION WITH MACHINE IN EMERGENCY MODE (EXAMPLE THERMAL PROTECTION TRIPPED)

- switch off the machine, with the sequence of commands indicated in **point 05.04**;
- leave the electric motor to cool for approx. half an hour;
- start the machine, with the sequence indicated in **point 05.03** – section "START WITH MACHINE OFF".

4_COMMANDS SEQUENCE FOR MACHINE SWITCH OFF

For total machine switch off, from the work terminated or shut-off condition, you need to:

- Press Button 0 that terminates rotation of the bowl and the spiral.
- Rotate the knob on the timer in position 0.
- Rotate the protection differential switch to the OFF position, coordinated with the main earthing system, placed upstream of the machine in the user's system, which disconnects the machine from the electrical power supply.



WHEN THE MACHINE IS NOT ACTIVE, SELECT (SWITCH OFF) THE MAIN SYSTEM OF THE ELECTRICAL ENERGY MAINS AND DISCONNECT THE CURRENT SOCKET.

5_FUNCTIONING ANOMALIES

PROBLEM	PROBABLE CAUSES	POSSIBLE SOLUTIONS
THE MOTOR STOPS	The motor circuit breaker ("thermal switch") identifies motor heating	Wait for approx. 30' until the motor cools; then re-start the work
	Malfunctioning and/or breakage of any electrical part	Contact the Dealer's Authorised, Trained Technician
IF YOU REALISE...	PROOF	
THE ELECTRIC PHASES ARE NOT ALL ACTIVE	<ul style="list-style-type: none"> • If the power supply is three-phase, the rotation speed lowers to 1/3 the power. For each phase not active. Rotations are lost. • If the power supply is monophase, the phase loss leads to no electricity supply. 	

6_USE OF MACHINE

The environmental conditions in which the machine must be installed must follow these characteristics:

- Be dry
- The machine is constructed to have IPXI protection level.
- Water and heat sources at safe distance.
- Adequate ventilation and lighting corresponding to hygiene and security regulation following the existing laws. The surface should be flat and compact for easier cleaning. For normal ventilation of the machine no objects should obstruct.

Power the elements forming the mix into the saucepan, then close the lid and activate bowl and whisk rotation, activating the timer and pressing 1.

To check the mix is compact, or to add further ingredients, open the lid.

In this condition, the machine is stopped: on closing the lid, press Button 1 again to re-start rotation (having closed the lid on the bowl).



DO NOT REMOVE THE GUARDS DURING USE OF THE MACHINE. THE MANUFACTURER CANNOT BE HELD IN ANY WAY LIABLE FOR NON-COMPLIANCE WITH THE AFOREMENTIONED INSTRUCTIONS.

INFORMATION

The electric network must be provided with an automatic differential switch having characteristics suitable to those of the machine, in which the opening distance between the contacts must be of at least 3 mm.

Most of all it is necessary a good ground system.



Verify that the electrical set-up corresponds with the numbers of the technical characteristics (1.3) found and on the small plate at the back of the machine.

Before starting work make sure that the machine is perfectly clean in particular, the surfaces of bowl, the spiral and of the central column that have contact with the food products. If necessary clean them following indications.

USAGE OF THE MACHINE WITH RISING TOP AND REMOVABLE BOWL

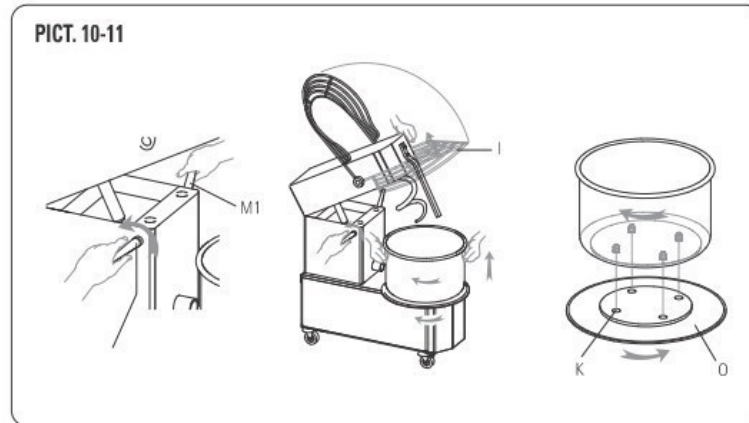
After lifted up the protection I, put in the bowl all the required ingredients, push down the protection, press the button to start. The movement made by the spiral, which is synchronized with the rotation of the bowl, gives an amalgamation of flour, water, salt, yeast and other eventual ingredients till you obtain a mixture of the consistence required. If necessary, in order to modify the characteristics and/or the consistence of the initial dough, put the ingredients through the protection grate I.

RAISING OF THE TOP AND TAKING OFF OF THE BOWL

In order to raise the top and to take off the bowl proceed as follows: stop the machine, unplug the machine, raise the protection I completely (PICT. 10), pull the pin M as far as the top is blocked, raise the top by means of the little piston underneath, rotate clockwise the disk 0 as far as the bowl is unlocked, raise the bowl and take it off, take off the dough.

REPOSITIONING OF THE BOWL AND TOP

Once the cleaning is done, put the bowl back on, and make sure that the four pins underneath (PICT. 11) are correctly fixed in the four holes K of the machine; then block the bowl rotating clockwise the disk O. Put the top down pushing it downwards (PICT. 9) as far as it is blocked by the pin M.



USAGE OF THE MACHINE PROVIDED WITH TIMER

The timer is an electromechanical device that allows to program from 1 to 30 minutes.

- The work-time of the machine by rotating the knob O in the desired position (PICT. 13).
- Operate the machine following the instruction.
- Once the set time is over, the timer stops the machine
- In the manual position of the timer is not included the work time.

INFORMATION

Before taking off the dough beware of following the stop procedure.

WORKING TEST MACHINE

Single-phase or Three-phase machine 1 speed:

OPERATING: Push the green button A to start the bowl and the spiral

STOP: Push the red button B to stop the bowl and the spiral

F Timer: set the time of the mixture

Three-phase machine with 2 speeds:

OPERATING: Push switch 1: first speed 2: second speed

STOP: Push the red button B to stop the bowl and the spiral

F Timer: set the time of the mixture

In order to operate the machine again after the stop due to the raising of the protection I it is necessary to proceed as follows: lower again and completely the protection I, push the button A.

Note: In a machine fed electrically by three-phase, if the rotation of the bowl is opposite the way shown by the arrow it is necessary to follow these indications for the functioning and every time you change the electric plug:

- Stop the machine. - Take the plug out.
 - Reverse on the plug the position of two phases (ex. L1 with L2 and vice versa).
 - Restart the machine and verify if the bowl is rotating the right way.
- Start the machine without using it, let it on for about one minute and verify that it is functioning perfectly.

MAINTENANCE

1_CLEANING AND MAINTENANCE OF THE MACHINE

The machine requires cleaning before each use.

- Clean the parts in contact with the mixture, the bowl column and the spiral.
- Lift the cover of the bowl.
- Use water, both hot and cold, and normal detergents with the help of a soaked cloth.
- Remove the washing water using a sponge and dry.

Also ensure that before use the cleaning operations mentioned above were carried out.



CLEANING OF THE PARTS IN CONTACT WITH THE MIXTURE SHOULD ALWAYS BE CARRIED OUT WITH THE MACHINE OFF, WITHOUT MAINS POWER (CUT MAINS VOLTAGE, I.E. DISCONNECT THE PLUG).

The cleaning must be done every time the machine has been used following all the rules to prevent malfunctioning of the machine and for hygienic purposes. Using a wooden or plastic palate first clean the residue of dough, then with a soft sponge and warm water accurately clean the pan, the spiral, the dough breaker and the mobile protection, dry with kitchen paper, then pass over the parts just mentioned then all the machine with a smooth and cleaned cloth with a specific cleaning products for foods machines.



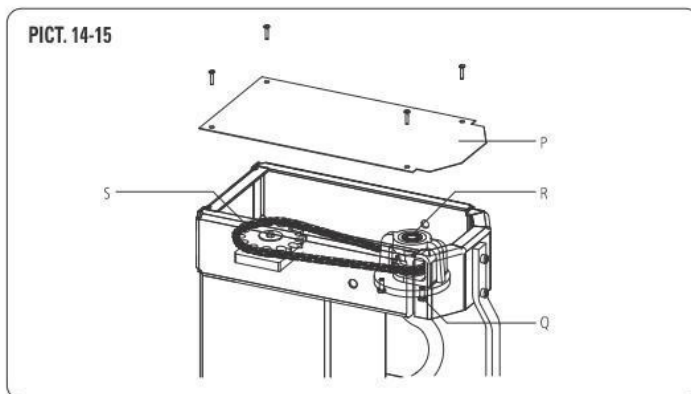
We recommend not to use any kind of chemical product abrasive or corrosive. Absolutely avoid using running water, different tools, rough or abrasive objects, metal wool, sponges etc. Which can damage the surfaces and be dangerous from an hygienic point of view.

To maintain the efficiency and security of the machine it is necessary to proceed with periodical maintenance (every 6 months) of the following indications:

TENSIONING OF THE UPPER CHAIN

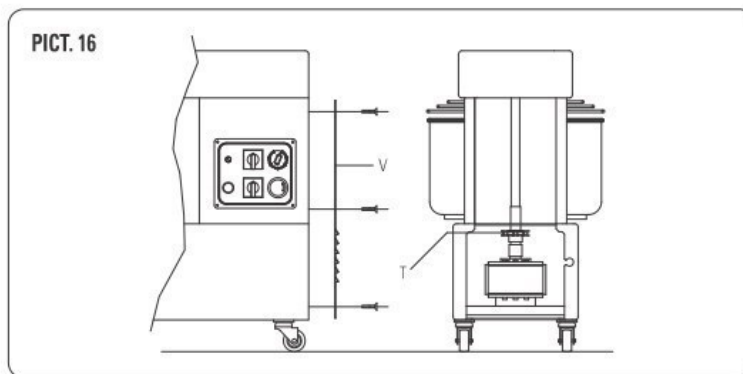
The chain must be tensioned, if by checking it, it becomes loose or if the rotation of the spiral is not constant, unscrew the panel P (PICT. 14-15) loosen the screws Q, pull the support of the spiral R as far as the tension of the chain is optimized.

Then, lock the support R with the screws Q, put the panel P on once more and fix it.



LUBRICATING THE CHAINS

After unscrewing the fixing screws, take away the upper P and the back V panels, put on the chains S-T (PICT. 14-1516) a reasonable amount of proper grease, sufficient to lubricate all the links of the chain. Once this is done, mount the 2 panels and secure again with screws.



For any maintenance not covered in Ordinary Maintenance, and in the event of malfunctions, only contact the manufacturer, who will send qualified and authorized staff to you.



THE MANUFACTURER CONSIDERS THE WARRANTY NULL AND VOID FOLLOWING UNAUTHORISED INTERVENTION ON THE MACHINE.



Before effecting any kind of maintenance or cleaning you must take out the plug. In any case of malfunctioning or damage of the machine you must apply for authorized assistance from the manufacturer (see Chapter 7).

POSSIBLE ANOMALIES

ANOMALY	CAUSE	SOLUTION
The machine does not start	Lack of energy in the power grid	Check the general switch, the plug, the tap and the feeding cable
	The button to stop is blocked	Reactivate the green button
	The protection grid and/or the top are up or the bowl is not inserted	Put down correctly both the grid and the top and insert the bowl
	The timer is in position 0	Rotate the timer from 1 to 30 minutes or in manual
The spiral turns inconstantly	The chain is loose	Stretch the chain following the instructions at at p.20
The machine stops while working	Stop of the fuse	Change the fuse with another one, which has the same characteristics


DEMOLITION OF THE MACHINE

In case of dismantling and demolition of the machine, the pieces which the machine is made of, do not present any kind of danger that necessitates any particular caution.

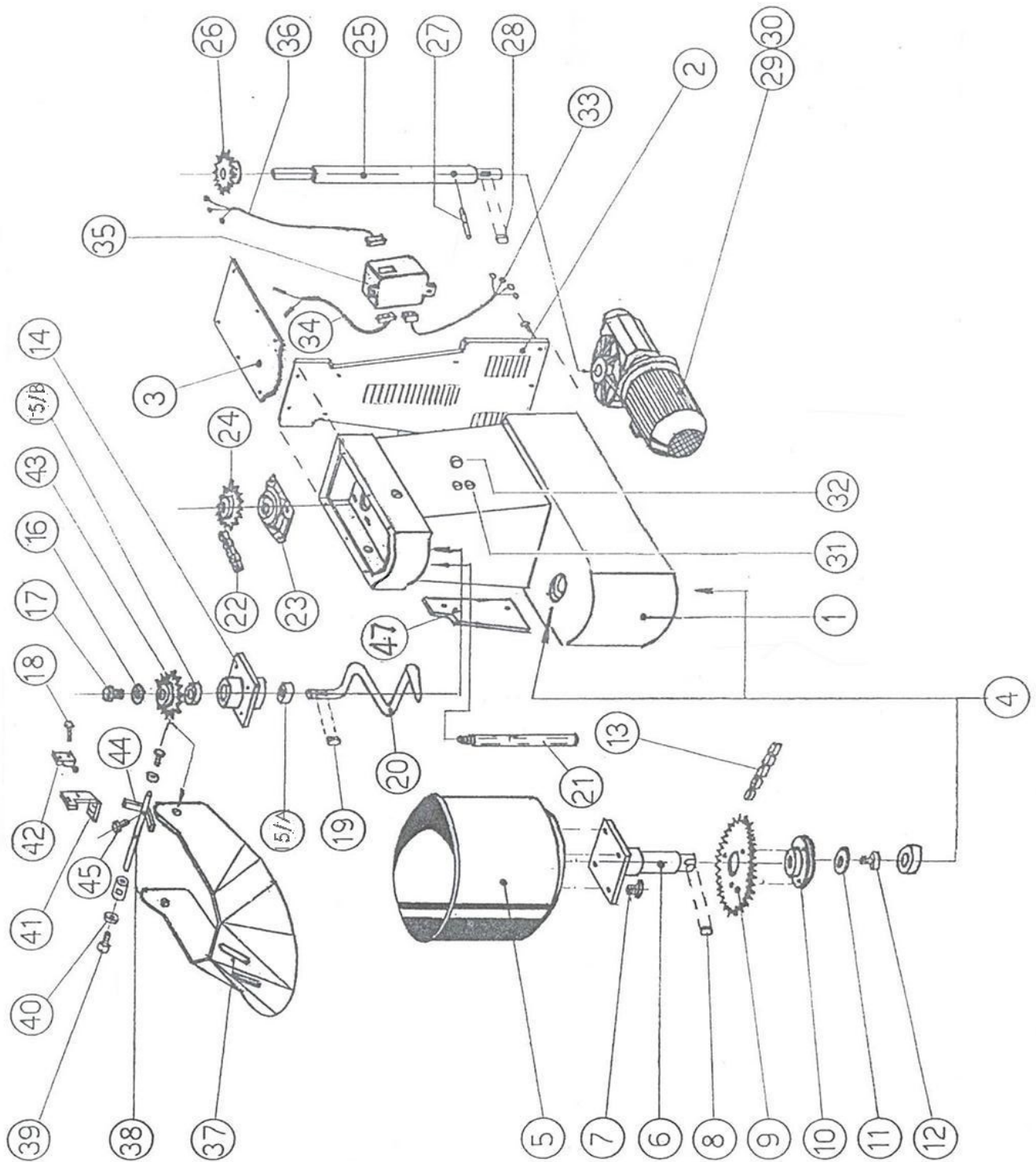
To facilitate the recycling process of the materials, you must separate all electrical components.

SPARE PARTS

For a demand of spare parts, see the picture below.

 **WARNING WE ADVISE YOU TO FIT ORIGINAL SPARE PARTS ONLY.**
EEC countries: Contact exclusively place of purchase.

REF.	DESCRIPTION	7485.0078	7485.0080	7485.0085	7485.0090	7485.0095
1	MIXER FRAME	7T010025	7T010000	7T010010	7T010020	7T010020
1	MIX. FRAME ROUND. HEAD		7T010002	7T010012	7T010022	7T010022
2	REAR PANEL	4P040558	4P040555	4P040556	4P040557	4P040557
3	UPPER COVER	4P040553	4P040550	4P040551	4P040552	4P040552
4	SEALED BEARINGS	-	5C030012	5C030012	5C030012	5C030012
5	BOWL	5V010510	5V010505	5V010506	5V010507	5V010508
6	BOWL SUPPORT	7A010520	7S010012	7S010009	7S010009	7S010010
7	T.E. SCREW	5V500002	5V500002	5V500002	5V500002	5V500002
8	KEY	-	5L500039	5L500039	5L500039	5L500039
9	TOOTHED CROWN 3/8S	5C030502	5C030501	5C030500	5C030500	5C030500
10	CROWN HUB	-	4F050010	4F050010	4F050010	4F050015
11	FLAT WASHER	-	5R500020	5R500020	5R500020	5R500020
12	M8 SCREW	-	5V500057	5V500057	5V500057	5V500057
13	BOWL SUPPORT CHAIN	5C020109	5C020100	5C020101	5C020102	5C020102
14	SPIRAL SUPPORT	3S010100	7S010000	7S010001	7S010002	7S010001
15/A	SEALED BEARING + SEEGER	5C030014	5C030011+ 5S500100	5C030013+ 5S500110	5C030013+ 5S500110	5C030013+ 5S500110
15/B	SEALED BEARING + SEEGER	5C030014	5C030010+ 5S500100	5C030011+ 5S500100	5C030011+ 5S500100	5C030011+ 5S500100
16	FLAT WASHER	-	5R500027	5R500020	5R500020	5R500020
17	T.E. SCREW	-	5V500003	5V500057	5V500057	5V500057
18	T.C.B. SCREW CROSS	5V500499	5V500499	5V500499	5V500499	5V500499
19	KEY	-	5L500035	5L500035	5L500035	5L500035
20	SPIRAL	5S080004	5S080000	5S080001	5S080001	5S080003
21	KNEADER ROD	4S010503	4S010500	4S010501	4S010502	4S010502
22	SPIRAL CHAIN	5C020110	5C020105	5C020105	5C020107	5C020107
23	UCF SUPPORT	5S030009	5S030010	5S030010	5S030010	5S030010
24	SH. UPP. PINION ON DRIVE	5P030009	5P030000	5P030001	5P030001	5P030001
25	DRIVE SHAFT	3A050514	3A050510	3A050511	3A050511	3A050513
26	LOW. PINION SH. ON DRIVE	5P030008	5P030005	5P030006	5P030006	5P030006
27	HEAVY TYPE SPRING PIN	5G510002	5S100101	5S100101	5S100101	5S100101
28	KEY	5L500001	5L500033	5L500033	5L500033	5L500033
29/30	MONOPHASE GEARMOTOR	5M010010	5M010501	5M010506	5M010506	5M010511
29/30	THREE-PH. GEARMOTOR	-	5M010500	5M010505	5M010505	5M010510
29/30	THREE-PH. GEARMOTOR 2V	-	5M010502	5M010507	5M010507	5M010512
31	MONOPHASE SW.	5I100040	5I100040	5I100040	5I100040	5I100040
31	THREE-PHASE SW.	-	5I100030	5I100030	5I100030	5I100030
32	TIMER	5T010301	5T010301	5T010301	5T010301	5T010301
33	PW CABLE MOT. MONOPH.	5C010001	7C010023	7C010023	7C010023	7C010023
33	PW CABLE MOT. THREEPH.	-	7C010022	7C010022	7C010022	7C010022
34	DR. CABLE MICROSWIT.	7C010027	7C010024	7C010024	7C010024	7C010024
35	CONTROL UNIT (for v.2 sp)	-	5S010052	5S010052	5S010052	5S010052
36	PW CABLE LINE	-	-	-	-	-
37	PROTECTION GRID	5G080004	5G080000	5G080001	5G080002	5G080002
38	COVER ROD	3A010505	3A010500	3A010501	3A010502	3A010502
39	T.E. SCREW	5V500022	5V500023	5V500023	5V500023	5V500023
40	TOOTHED WASHER	5R500080	5R500019	5R500019	5R500019	5R500019
41	MICROSWITCH SUPPORT	4S060504	4S060504	4S060504	4S060504	4S060504
42	MICRO SWITCH	5M050500	5M050500	5M050500	5M050500	5M050500
43	SPIRAL PINION	5P030007	5P030010	5P030011	5P030011	5P030011
44	OPEN LIMITER COV.	4L010025	4L010026	4L010027	4L010027	4L010027
45	T.E. SCREW	5V500054	5V500054	5V500054	5V500054	5V500054
47	GUARD	4P020503	4P020500	4P020501	4P020501	4P020502



F.	DESCRIPTION	7485.0100	7485.0110
1	MIXER FRAME	7T010100	7T010110
1	ROUNDED HEAD MIXER FRAME	7T010102	7T010112
2	REAR PANEL	4P040655	4P040656
3	UPPER COVER	4P040650	4P040651
3	ROUNDED HEAD UPPER COVER	4P040675	4P040680
4	BEARING	5C030012	5C030012
5	BOWL	5V010505	5V010506
6	BOWL SUPPORT	7S010018	7S010019
7	KEY	5L500040	5L500040
8	KEY	5L500039	5L500039
9	TOOTHED CROWN 3/8S	5C030501	5C030500
10	CROWN HUB	4F050010	4F050010
11	FLAT WASHER	5R500020	5R500020
12	M8 SCREW	5V500057	5V500057
13	BOWL SUPPORT CHAIN	5C020100	5C020101
14	SPIRAL SUPPORT	7S010000	7S010001
15/A	BEARING + SEEGER	5C03001 + 5S500100	5C030013 + 5S500110
15/B	BEARING + SEEGER	5C0300105 + S500100	5C030011 + 5S500100
16	FLAT WASHER	5R500027	5R500020
17	T.E. SCREW	5V500003	5V500057
18	LIFTING HEAD	-	-
19	KEY	5L500035	5L500035
20	SPIRAL	5S080000	5S080001
21	KNEADER	4S010500	4S010501
22	SPIRAL CHAIN	5C020105	5C020105
23	UCF SUPPORT	5S030010	5S030010
24	UPP. PINION SHAFT ON DRIVE	5P030000	5P030001
25	DRIVE SHAFT	3A050520	3A050521
26	LOW. PINION SHAFT ON DRIVE	5P030005	5P030006
27	SPRING PIN HEAVY TYPE	5S100102	5S100101
28	KEY	5L500033	5L500033
29-30	MONOPHASE GEARMOTOR	5M010501	5M010506
29-30	THREE-PH. GEARMOTOR	5M010500	5M010505
29-30	THREE-PH. GEARMOTOR 2 SPEED	5M010502	5M010507
31	MONOPHASE SW.	5I100040	5I100040
31	THREE-PHASE SW.	5I100030	5I100030
32	TIMER	5T010301	5T010301
33	WHEEL KIT	8K010001	8K010001
34	HEAD PISTON	5M500020	5M500020
35	CONTROL UNIT (FOR 2 SPEED VERS.)	5S010052	5S010052
36	PW CABLE MONOPH. MOTOR	7C010023	7C010023
36	PW CABLE THREEPH. MOTOR	7C010022	7C010022
37	PROTECTION GRID	5G080000	5G080001
38	GRID SHAFT	3A010500	3A010501
39	T.E. SCREW	5V500023	5V500023
40	SPACER	3D010050	3D010050
41	GRID MICRON SUPPORT	4S060504	4S060504
42	GRID MICRO	5M050500	5M050500
43	SPIRAL PINION	5P030010	5P030011
44	L LIMIT SWITCH	4L010026	4L010027
45	HEAD LOCK HANDLE	5M200035	5M200035

46	HEAD MICRON	5M050501	5M050501
47	GUARD	4P020505	4P020506
48	BOWL LOCK PIN	3P030005	3P030005
49	UPP. DISC BOWL	4D020530	4D020530
50	BOWL LOCK DISC	4D020520	4D020521
51	DISC GASKET	5G50003	5G50003
52	SENSOR SUPPORT	4S000025	4S000025
53	PROXIMITY SENSOR	5S010075	5S010075
54	HEAD PIN	-	-
55	HEAD DRIVE SHAFT	3A050525	3A050525
56	HEAD SHAFT PIN	5S510015	5S510015
57	DRIVE SHAFT	5G010006	5G010006
58	KEY	5L500040	5L500040

