06/2022

Mod: PSB-162MI/2V

Production code: SP160

Diamond

22/01/2020

INSTRUCTION MANUAL

AUTOMATIC SPIRAL MIXER

EN

SP60-80-100-130-160-200-250

SP80R-100R-130R-160R-200R-250R

SP80CR-100CR-130CR-160CR-200CR-250CR

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CHAPTER 1. GENERAL INFORMATIONS

1.1 PREFACE

This manual is directed towards those who install, operate and maintain the machine so that they can take advantage of the characteristics of the product in the best way. It is important that this manual is kept and remains with the machine if it is moved or if ownership changes so that it can be consulted under all circumstances and therefore the necessary information is available to operate it within safe conditions.

The manufacturer does not take upon themselves the obligation to give notice of possible successive modifications of the product. Furthermore, under the terms of law, this document remains the property of the manufacturer, and tampering, reproduction or transmission to a third party are prohibited without their consent.

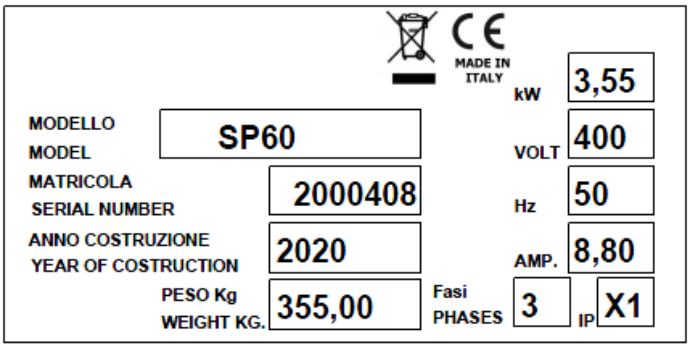
The following symbols are used to better stress some passages

ATTENTION: indicates hazards that might cause serious damages; attention is required

NOTE: indicates particularly important technicial information

1.2 MACHINE IDENTIFICATION DETAILS

The identification data of the machine are impressed on the plate placed on the rear of the machine.



1.3 WARRANTY

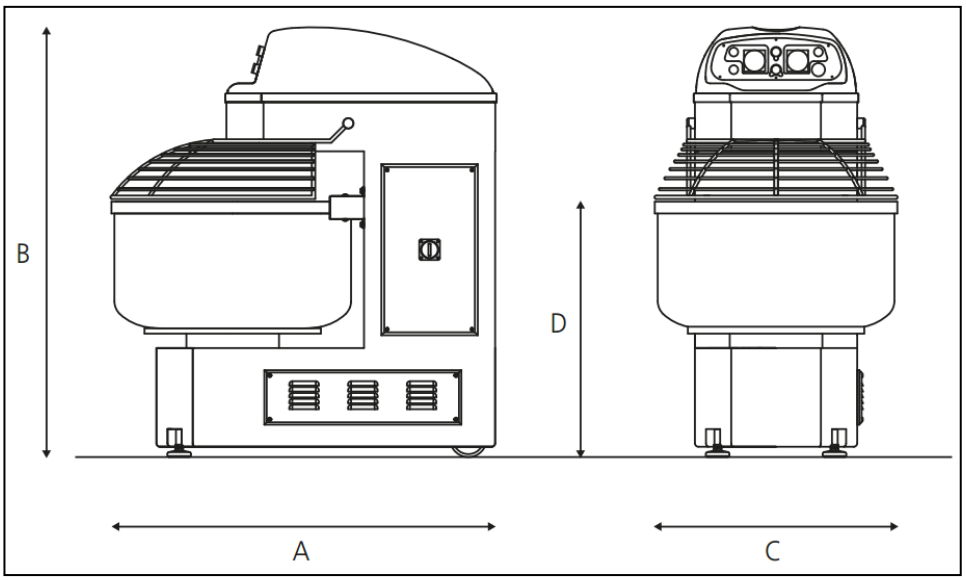
The duration of the guarantee is for two years and runs from the date on the invoice or tax receipt was issued at the time of purchase. Within this period, components that have been unequivocally ascertained to be faulty due to manufacturing defects will be substituted or repaired freely by the manufacturer from their premises, except for electrical components and those subject to wear and tear.The guarantee excludes postage and labour costs.

The guarantee is forfeited in the case of the damage being caused by: transportation, wrong or insufficient maintenance, unskilled operators, tampering, repairs carried out by unauthorised personnel, or failure to comply with the instructions of the manual. Compensation from the manufacturer will not be given for direct or indirect damages arising during any time the machine is inoperative due to its breakdown, it being awaiting repairs, or in any way referable to the non- physical presence of the machine.

1.4 MACHINE SPECIFICATIONS

The machine has been built and designed for professional use in the bakery and pastry industry.
The working cycle can be manual or automatic with two speeds.
The machine (Pict.1.1) consists of:

- steel-bowl, spiral and shaft in strong high stainless steel
- protection cover in stainless steel
- head plate covered in stainless steel
- machine can be equipped with two operating speeds automatically adjustable
- two independent motors for spiral and bowl two electronic timers for an automatic management of operating speeds
- a bowl with rotation on impulse a predisposition for a flip-over mechanism on worktable or divider a reversible bowl
- a chain drive system made using trapezoidal belts to get the highest silence
- front feet made in stainless steel and they are adjustable
- rear wheels for an easy movement
- electric system and the safety devices conform to the European regulations



Pict. 1.1 - Dimensions

Tab. 1.1 - Dimensions

Model	A	B	C	D
	mm	mm	mm	mm
SP60-SP60R	1180	1312	630	800
SP80-SP80R	1305	1460	730	830
SP100-SP100R	1305	1460	730	850
SP130-SP130R	1355	1460	830	870
SP160-SP160R	1440	1560	930	870
SP200-SP200R	1490	1560	930	910
SP250-SP250R	1580	1560	1030	950

1.4.1 TECHNICAL SPECIFICATIONS

Tab. 1.2 – Technical specifications SP 60-80-100-130-160-200-250

Model	Kneading capacity	Flour capacity	Bowl volume	Spiral motor 1th/2th speed	Bowl motor	Weight
	kg	kg	Lt.	kW	kW	kg
SP60	60	40	100	1.5/3	0.55	370
SP80	80	53	130	3/5.2	0.75	510
SP100	100	66	160	3/5.2	0.75	520
SP130	130	86	200	3/5.2	0.75	580
SP160	160	106	250	4.5/7.8	1.1	790
SP200	200	133	290	6.5/11	1.1	830
SP250	250	166	390	6.5/11	1.1	860

Tab. 1.3 - Technical specifications SP 80R-100R-130R-160R-200R-250R

Model	Kneading capacity	Flour capacity	Bowl volume	Spiral motor 1th/2th speed	Bowl motor	Weight
	kg	kg	Lt.	kW	kW	kg
SP80R	80	53	130	3.5/5.2	0.75	564
SP100R	100	66	160	3.5/5.2	0.75	565
SP130R	130	86	200	3.5/5.2	0.75	600
SP160R	160	106	250	4.5/7.5	1.1	795
SP200R	200	133	290	5.9/10.3	1.1	815
SP250R	250	166	390	5.9/10.3	1.1	870

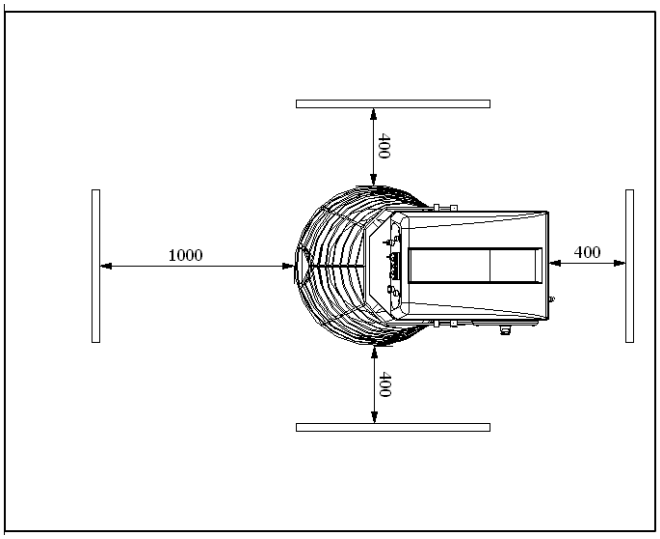
1.5 RELEVANT REGULATIONS

The machine has been designed and manufactured in accordance with the Machinery Directive 2006/42/CE and the following standards:

- UNI EN ISO14121-1: Safety of machinery
- UNI EN ISO12100: Safety of machinery - General principles for design
- UNI EN ISO13857: Safety distances
- UNI EN 349:2008: Minimum gaps to avoid crushing of parts of the human body
- IEC60204-1 Ed. 6.0: Electrical equipment of machines
- EN 453: Food Processing Machinery - Dough Mixers

1.6 OPERATING AREA

In the normal working conditions and to have the best exploration of the potentiality of the machine, the operator needs the area represented in Pict. 1.2



Pict. 1.2: Operating area

1.7 SAFETY AND HEALTH WARNINGS

Although the machine is built in conformity to the required security rules regarding electrical, mechanical and hygienic regulation it can be dangerous if:

- Used in case and condition different to those described by the manufacturer.
- Manomission of the protection and of the safety devices.
- Innattention to the instruction of: Installation - Functioning - Usage - Maintenence.

In particular:

A) Do not use the machine in humid, wet or nadly lit environments, close to inflamable liquids or gas.

B) Keep away from children and non authorized personnel.

C) Only utilize the machine with the correct voltage. Normal usage gives better results.

D) Dress in adequate way. Do not wear hanging clothes or any items which can be caught in the machine. Use non-slip shoes. For hygiene and safety keep your hair tied back and wear protective gloves.

E) Protect the cable. Do not pull the cable to extract the plug. Do not leave the cable near high temperatures, sharp objects, water or solvents.

F) Take the plug out. When the machine is not in use, before cleaning, maintenance and moving it.

G) Check that the machine is not damaged. Before using the machine carefully check that all security devices are working. Check that: the mobile parts are not blocked, there are not any parts damaged, all the parts have been set up correctly and all the conditions that could influence the regular functioning of the machine are in working order.

H) Repairing the machine by qualified personnel. The repairs can only be done by qualified people, using original spare parts.

The manufacturer declines any responsibility for damages to people, animals or things caused by the non –

observance or non-respect of instructions s for installation, use and maintenance contained in this manual.

1.7.1 POWDERS RISK

During the loading operations of the dry products in the bowl or during the normal working some hanged dusts can be determined (for example flour dust).
The ingredients and the packaged products must be handled with care, reducing at minimum the height over the bowl from which they are poured.
The packages must be opened with care in the bowl inferior part to promote the flour dust release in the less possible time.
During the flour loading and during the machine functioning normal cycle, a suction centralized system must be prepared and functioning, placed in the machine superior part.
In any case, against the residual risk due to the lacked functioning of the suction system, the operator and the maintenance man besides to be adequately informed and trained, every time that approach in the working
zones, must use respiratory ways protection devices, as for example anti dust respiratory masks or other suitable devices.
Besides, the working must be immediately interrupted and the internal maintenance service must be activated
to function the suction system.
The same individual protection devices must be used from the operator and from the maintenance man when
perform the machine cleaning operations.

1.7.2 SAFETY DEVICES

The machine is equipped with the following safety devices:

- Safety guard which prevents access to the bowl during the work process
- Emergency stop button
- A microswitch which acts by stopping the machine during operation if the safety grill is lifted
- Safety guard for the electrical system

1.8 SERVICE AND SPARE PARTS

For questions on service and spare parts please contact your local dealer and state the following information (see data plate):

- Type of machine
- Year of production
- Reference number of the required piece as indicated in the drawing enclosed).

Use only genuine spare parts.

1.9 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, you must separate the different parts according to material type and provide the scrapping in compliance with the existing laws and regulations.

CHAPTER 2. INSTALLATION OF MACHINE

The machine should be installed in a well-ventilated room protected from dust and direct contact with atmospheric agents.

The machine must remain packed until the final installation at the place of employment.

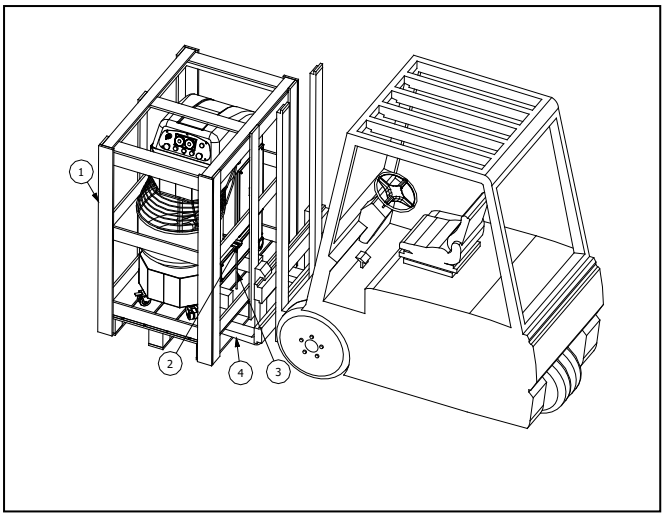
2.1 ENVIRONMENTAL CONDITIONS OF INSTALLATION SITE

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

- *Temperature:* +5/+40° C, with the average temperature not exceeding 35°C over a period of 24 hours.
- *Relative humidity:* from 30% to 95% in the absence of condensation
- Water and heat sources at safe distance from the machine
- Well-dimensioned flat and stable surface

2.2 TRANSPORT AND HANDLING

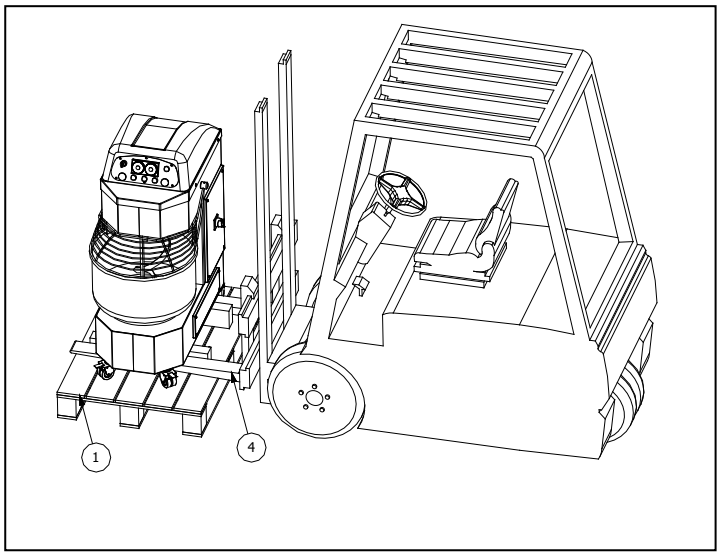
The machine is delivered completely assembled and packaged with a fumigated wooden case and and fixed onto a **wooden**-**pallet.**
Transport and handling of machine must be carried out under safety conditions using appropriate means of transport.
To lift and handle the pallet or the case use a suitable fork lift truck; the lifting forks are to be introduced in the pallet as shown in Pict. 2.1 and 2.2.
Separate the different materials according to material type and recycle them in accordance with relevants legislations.



Pict. 2.1

The machine is placed onto a wooden-pallet (Pos.1) and it's locked by a locking device (Pos.2) and two threaded bars Pos. 3

The lifting forks are to be introduced in the pallet as shown in Pict. 2.1 (Pos.4)

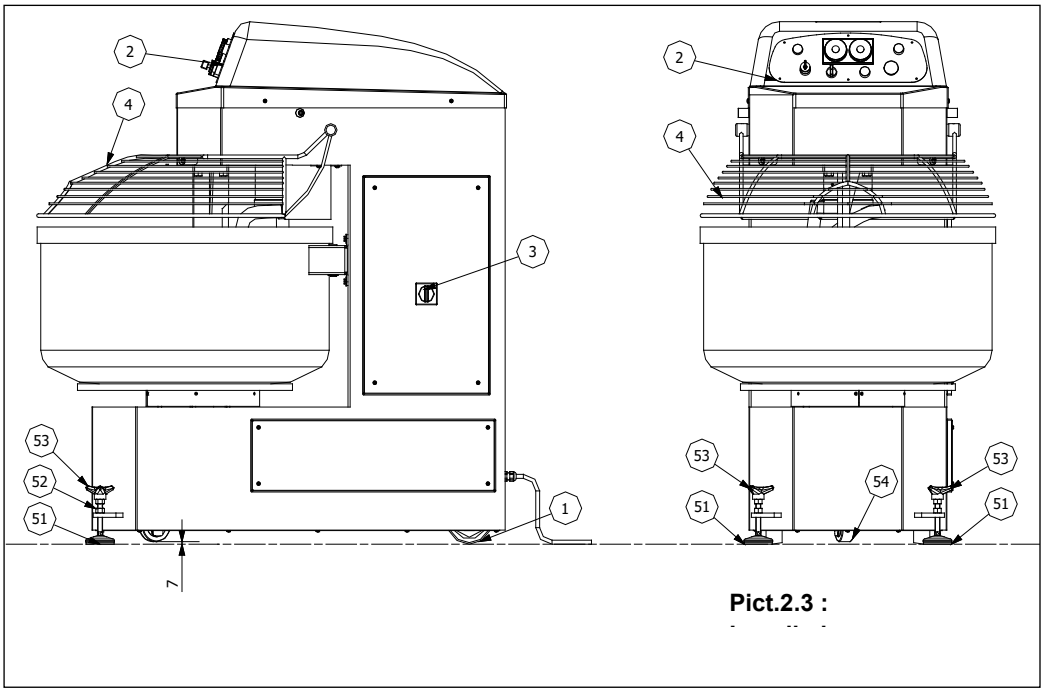


Pict. 2.2

Remove the docking device Pos. 2, introduce the lifting forks Pos.4 as shown in Pict. 2.2 and carefully lift the machine.

2.3 ADJUSTMENTS

After positioning in the selected area, adjust the front leveling feet Pos.51 Pict.2.3 with the3 lobe handwheel Pos. 53 to get perfect leveling and then lock it by tightening the nut Pos. 52.
If the machine is unstable due to floor irregularity, adjust the support feet or wheels by inserting rubber pieces.



Pict.2.3 :

2.4 ELECTRICAL CONNECTION

The machine is equipped with connecting cable located on the back of the machine. It's essential to mount a normalized and polarized plug at the end of the cable.

ATTENTION: Before proceeding to the electrical connection, ensure that voltage and frequency are the same declared by the Manufacturer and shown on the identification plate.

The electric net must be provided with an automatic differential switch and this has to be suitable to the machine

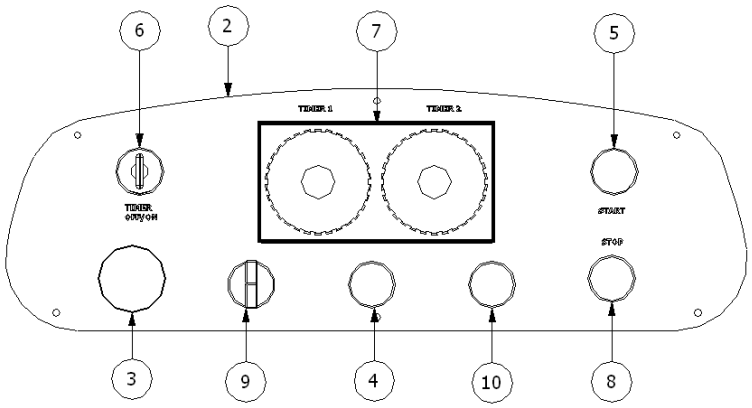
The electrical plug must be easy to access, no moving should be necessary.

ATTENTION: Any electrical intervention involving the working site is to be carried out by qualified and skilled technicians.. The manufacturer will not be liable for defects, breakdowns or malfunctioning arising from the non-compliance with the power supply values stated.

CHAPTER 3. CONTROL DEVICES

The control panel of the machine (Pict. 3.1) is placed in front of the machine and it includes all the necessary push-buttons for its working /driving gears, planning of the dough times, reversal of the rotator movement of the bowl)

3.1 ELECTRO-MECHANICAL CONTROL PANEL



Pict.3.1

POSITION	DESCRIPTION	FUNCTION
Pos.3	RED MUSHROOM EMERGENCY BUTTON	When pressed, it stops the machine completely by cutting off the voltage from the electric circuits.
Pos.4	INDICATOR LIGHT	After turning the main switch (look at Pict. 2.3, Pos. 3) to position " I " , if it lights, means that the machine is connected to the local electricity network.
Pos.5	START BUTTON	To start the cycle
Pos.6	TIMER SWITCH OFF/ON	When turned to the left : manual operation cycle is enabled. (the timers are excluded) When turned to the right : automatic operation cycle is enabled.
Pos.7	TIMER 1 / TIMER 2	Timer 1: Controls time of 1st speed Timer 2: Controls time of 2st speed
Pos.8	STOP BUTTON	Stop the machine
Pos.9	REVERSE BOWL ROTATION SELECTOR	Left position: clockwise bowl rotation Middle position: no bowl rotation Right position: anticlockwise bowl rotation
Pos.10	JOGGING BUTTON	Jogs the bowl to help the dough extraction.

CHAPTER 4. USE OF THE MACHINE

4.1 TESTING

Before starting the machine, the safety devices should be checked according to the following procedure:

1 while the machine is working, press the emergency button (Pos. 3 Pict.. 3.1). The machine should stop immediately.
2 while the machine is working lift the protection grid(Pos. 4 Pict. 2.3). The machine should stop immediately

Check that the control devices are functioning correctly, as described in the following paragraphs 4.4, 4.5, 4.6, 4.7.

Once the plug has been connected to the power supply socket, check the correctness of the bowl rotation direction (look at the direction shown by the arrow on the bowl). If the rotation direction is not correct, proceed as follows:

1. Stop the machine (Press STOP button Pos.8 Pict. 3.1 or the EMERGENCY BUTTON Pos.3 Pict. 3.1)
2. Take the plug out of the electric socket.
3. Reverse on the plug the position of two phases (example: L1 with L2 and vice versa).
4. Insert the plug into the electrical socket
5. Restart the machine and verify if the bowl is rotating the right way.

4.2 WORKING CYCLE DESCRIPTION

The dough **phase consists of the following steps:**

d) Loading machine

e) Execution of mixture cycle

f) Dough discharge

4.3 LOADING MACHINE

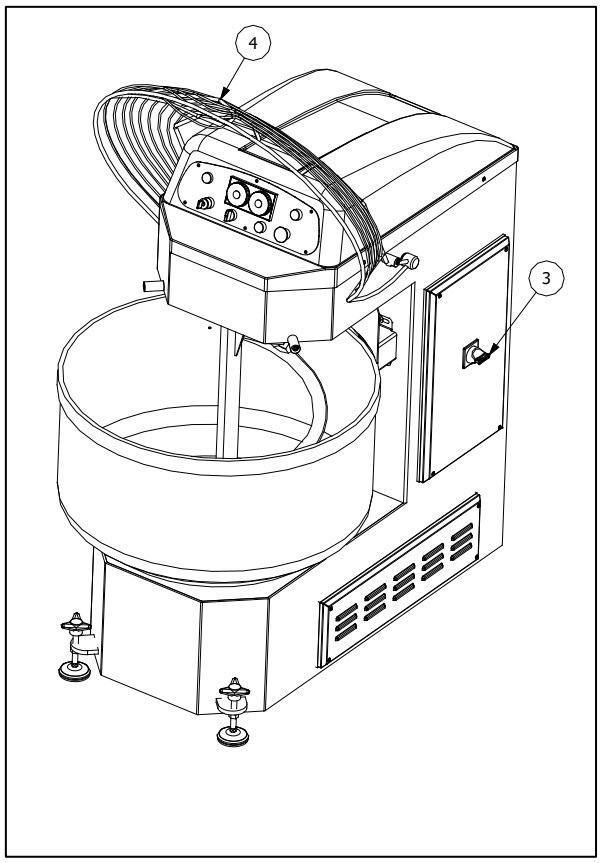
Lift up the protection grid Pos.4 Pict. 4.1
Put all initial ingredients into the bowl and then close the bowl cover. Always pour water in the bowl before adding flour.

ATTENTION: Do not introduce into the bowl any quantity of ingredients exceeding the capacity given by the Manufacturer in the present manual (look at Tab. 1.2 and 1.3). This might cause severe damage to the machine and in particular to the motion transmission system.

ATTENTION: During loading of dry ingredients in the bowl, powder suspended can be determined. (e.g. flour powder). Ingredients and packaged products must be handled with care by minimizing the height above the bowl base from which they are poured.
Careful slitting of bags in the lower part of the bowl to allow dust free discharge of flour as far as possible.

The manufacturer will be not responsible for any reasons and for any eventual damages caused from a non-observance of the instructions given in the same.

To add ingredients during the work cycle, lift up Mobile Protect Pos.4 Pict.4.1, add the ingredients, lower the protection and press START.



Pict. 4.1

4.4 MACHINE START-UP

Before starting the machine:

1. Connect the feeding cable to the electric socket
2. Turn the main O- I switch (look at Pos. 3 Pict. 4.1) to position " I ".
3. Be sure the red mushroom emergency button (Pos. 3 Pict. 3.1) is not pressed; otherwise unlock it by turning the mushroom button in the direction of rotation indicated by the arrow
4. Be sure that the protection grid is lowered onto the bowl.

NOTE: It's possible to reduce or increase the mixing time during machine operating

4.5 MANUAL MODE

4.5.1 MANUAL MODE AT 1ST SPEED

To work in manual mode at 1st speed, proceed as follows:

1. Position the selector Pos.6 (Pict. 3.1) in position OFF
2. Press the START button (Pos 5 - Pict. 3.1) to start with the 1st speed
3. Press the STOP button (Pos 8 - Pict. 3.1) to stop the working cycle

NOTE: The machine operates only in 1st speed; it is not possible to reverse the bowl rotation direction.

ALTERNATIVELY, PROCEED AS FOLLOWS:

1. Position the selector Pos.6 (Pict. 3.1) in position ON
2. Rotate the Timer 1 knob to the M position (manual)
3. Decide the bowl rotation direction with the selector Pos.9 Pict. 3.1 (otherwise the bowl does not rotate)
4. Press the START button (Pos 5 - Pict. 3.1) to start with the 1st speed
5. Press the STOP button (Pos 8 - Pict. 3.1) to stop the working cycle.

NOTE: During the working cycle it is possible to reverse the rotation direction of the bowl through the selector Pos. 9 (Pict. 3.1).

4.5.2 MANUAL MODE AT 2 ND SPEED

To work in manual mode at 2nd speed, proceed as follows:

1. Position the selector Pos.6 (Pict.3.1) in position ON
2. Rotate the Timer 1 knob to the E position (Timer 1 excluded)
3. Rotate the Timer 2 knob to the M position (manual)
4. Turning the selector switch Pos. 9 (Pict.3.1) to the right (otherwise the bowl does not rotate)

5. Press the START button (Pos 5 - Pict.3.1) the machine start at 1st speed and switches automatically to the 2nd speed after about 5 seconds
6. Press the STOP button (Pos 8 - Pict.3.1) to stop the working cycle

NOTE: It is not possible to reverse the rotation direction of the bowl when the machine is operating in 2nd speed

4.6 AUTOMATIC MODE

4.6.1 AUTOMATIC MODE – ONE SPEED

To work in automatic mode at 1st speed, proceed as follows:

1. Position the selector Pos.6 (Pict.3.1) in position ON
2. Rotate the Timer 1 knob clockwise (to the right) to desired time period
3. Rotate the Timer 2 knob clockwise (to the right) to the E position (Timer 2 excluded)
4. Decide the bowl rotation direction with the selector Pos.9 –Pict. 3.1 (otherwise the bowl does not rotate)
5. Press the START button (Pos 5 - Pict. 3.1) to start at 1st speed.

The machine will stop when the time has ended.

NOTE: Through the selector Pos 9(Pict. 3.1), it is possible to reverse the rotation direction of the bowl.

To work in automatic mode at 2nd speed, proceed as follows:

1. Position the selector Pos.6 (Pict.3.1) in position ON
2. Rotate the Timer 1 knob clockwise (to the right) to the E position (Timer 1 excluded)
3. Rotate the Timer 2 knob clockwise (to the right) to desired time period
4. Turning the selector switch Pos. 9 (Pict.3.1) to the right (otherwise the bowl does not rotate)
5. Press the START button (Pos 5 - Pict.3.1) to start the machine; it starts with the 1st speed and switches automatically to the 2nd speed after about 5 seconds

The machine will stop when the time has ended.

NOTE: It is not possible to reverse the rotation direction of the bowl when the machine is operating in 2nd speed

4.6.2 AUTOMATIC MODE- TWO SPEEDS

1. Position the selector Pos.6 (Pict.3.1) in position ON
2. Rotate the Timer 1 knob clockwise (to the right) to desired time period

3. Rotate the Timer 2 knob clockwise (to the right) to desired time period
4. Decide the bowl rotation direction with the selector Pos.9 – Pict.3.1 (otherwise the bowl does not rotate)
5. Press the START button (Pos 5 - Pict.3.1) to start the machine

When the time on the display of Timer 1 reaches the 0 , the machine switches automatically to the 2nd speed and it will stop when the time has ended.

NOTE: It's possible to reverse the rotation direction of the bowl when the machine is operating in 1st speed

NOTE: When the machine is operating in 2nd speed, the bowl rotates only if the selector switch Pos. 9 (Pict.3.1) is turned to the right.

NOTE: It is not possible to reverse the rotation direction of the bowl when the machine is operating in 2nd speed

4.7 STOPPING MACHINE

MANUAL MODE: Press STOP button Pos. 8 Pict. 3.1 or lift the protection grid

AUTOMATIC MODE: The machine will stop automatically at the end of the cycle (at the end of the time period set)

EMERGENCY STOP: Press Emergency stop button (red mushroom-headed button) Pos. 3 (Pict. 3.1).

If the AUTOMATIC MODE is selected, when pressing the red mushroom emergency button (Pos. 3 Pict. 3.1), the timer will reset.
When pressing the STOP button (Pos.8-Pict.3.1), the timer will not reset, and you can resume working by pressing the START button (Pos.5-Pict. 3.1)

4.8 DOUGH DISCHARGE

After stopping the machine, let the bowl and spiral come to a complete rest.

Turn the main 0-I switch Pos.3 Pict.4.1 to position " I " and empty the bowl.

CHAPTER 5. MAINTENANCE

ATTENTION: Before you start clearing or servicing the machine, verify that power has been turned off. In any case of malfunctioning or damage of the machine you must apply for authorized assistance from the manufacturer.

Maintenance is divided into two categories: ordinary maintenance and programmed maintenance

5.1 ORDINARY MAINTENANCE

For ordinary maintenance we intend all the operations that can be done by the operator only after having read carefully the instructions given in this section.

5.1.1 CLEANING THE MACHINE

Cleaning the machine at the end of each operating cycle is highly recommended.

For the good functioning of the machine and for hygienic purposes, it is necessary to remove the dough crusts from the bowl, the guard, the central column and the spiral by means of a cleaning cloths soaked in water or appropriate detergent. If needed, try to remove the hardest remains by means of a plastic paddle.

ATTENTION: During the cleaning operations some dusts can be determined (for example flour dust); it's recommended to use an extractor.

ATTENTION: Never use steel wool, compressed air jets or abrasive products to clean the machine.

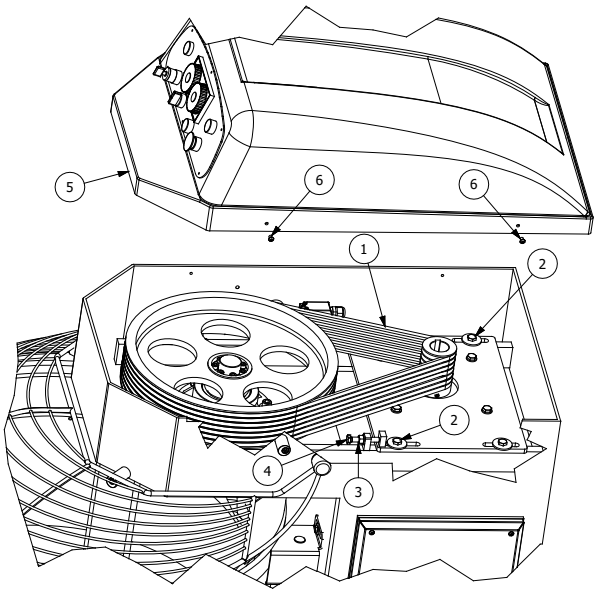
ATTENTION: Do not use water jets to clean both the control panel and the electric board.

5.2 PROGRAMMED MAINTENANCE

Ordinary maintenance operations must only be carried out by qualified personnel.
These are periodic inspections in order to prevent any future failure and to maintain the machines security standards
Particular attention must be paid to the belts tensioning**.**
The tension and general condition of the belt should therefore be checked at least monthly

5.2.1 SPIRAL BELTS TENSION ADJUSTMENT

mod. SP60,SP80,SP100,SP130,SP160, SP200,SP250

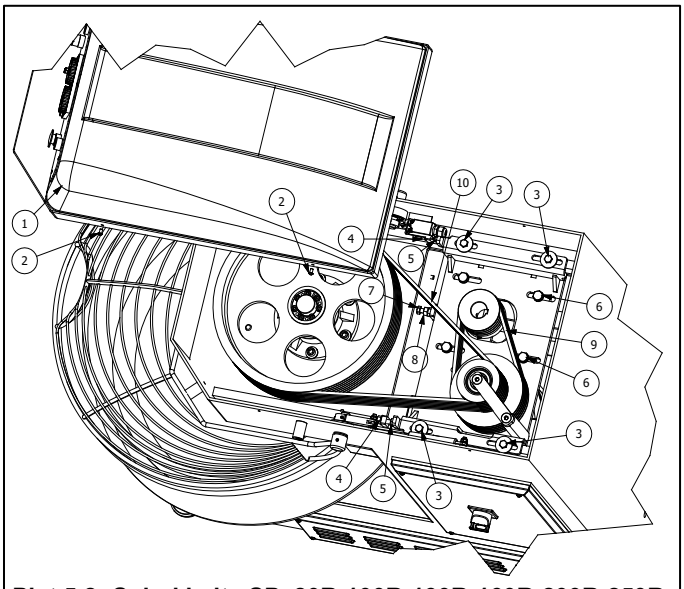


Pict5.1: Spiral belts SP 60-80-100-130-160-200-250

Proceed as follows:

1. Unscrew the screws Pos.6
2. Remove the head cover Pos.5
3. Loosen the four screws Pos.2 that sustain the motor without unscrewing them completely
4. Loosen the nut Pos.3
5. Restore the correct belts tension with the screw Pos.4
6. Retighten the screw Pos.3
7. Retighten the screws Pos.2 previously loosened
8. Re-assemble the head cover Pos.1

mod. SP80R,SP100R,SP130R,SP160R,SP200R,SP250R

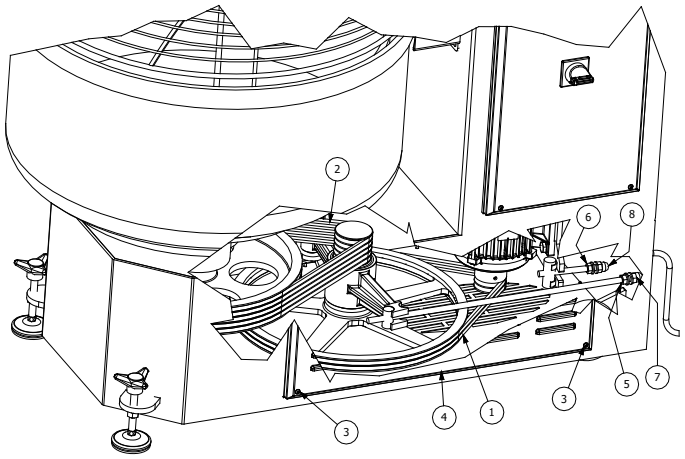


Pict.5.2: Spiral belts SP 80R-100R-130R-160R-200R-250R

Proceed as follows:

1. Unscrew the screws Pos.2
2. Remove the head cover Pos.1
3. Loosen the four screws Pos.3 without unscrewing them completely
4. Loosen the nut Pos.5
5. Restore the correct belts tension with the screw Pos.4
6. Retighten the screw Pos.5
7. Retighten the screws Pos.3 previously loosened
8. Re-assemble the head cover Pos.1

5.2.2 BOWL BELTS TENSION ADJUSTMENT

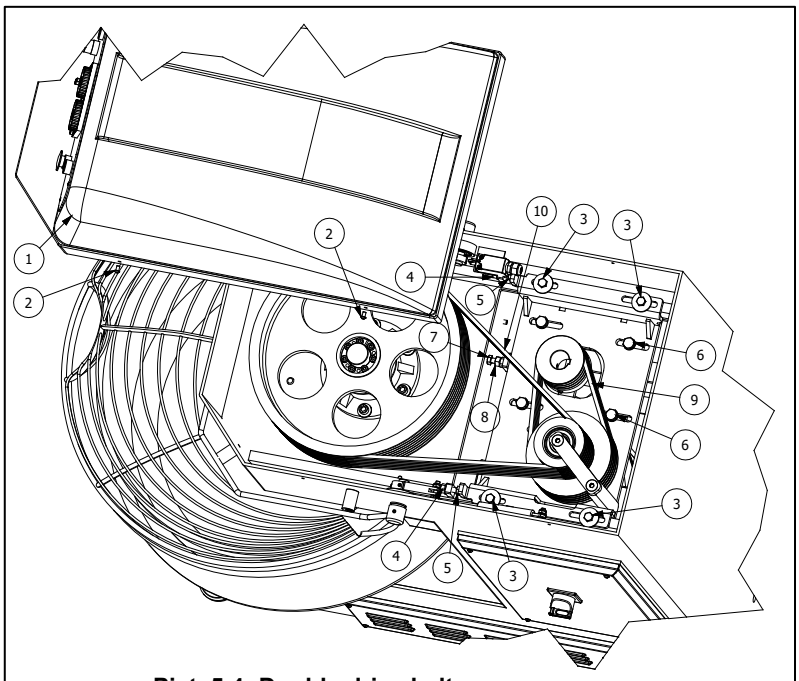


Pict.5.3: Bowl belts

Proceed as follows:

1. Unscrew the four screws Pos. 3
2. Disassemble the side cover Pos.4
3. To adjust the tension of belts Pos.1, loosen the nut Pos.6 and turn the nut Pos.8
4. To adjust the tension of belts Pos.1, loosen the nut Pos.6 and turn the nut Pos.7
5. Re-assemble the head cover Pos.4

5.2.3 DOUBLE DRIVE TRANSMISSION BELTS TENSION ADJUSTMENT



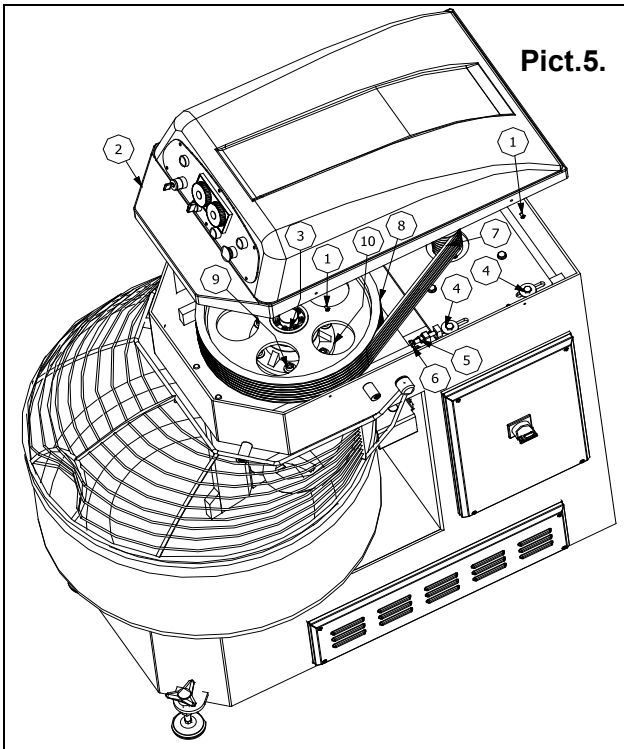
Pict. 5.4: Double drive belts

Proceed as follows:

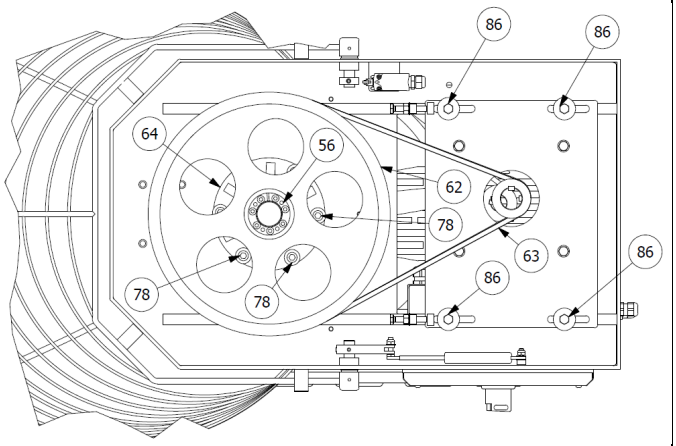
1. Unscrew the screws Pos.2)
2. Remove the head cover Pos.1
3. Loosen the four screws Pos.6 that sustain the motor without unscrewing them completely
4. Loosen the nut Pos.8
5. Restore the correct belts tension with the screw Pos.7
6. Retighten the screw Pos.8
7. Retighten the screws Pos.6 previously loosened
8. Re-assemble the head cover Pos.1

5.2.4 SPIRAL BEARINGS REPLACE

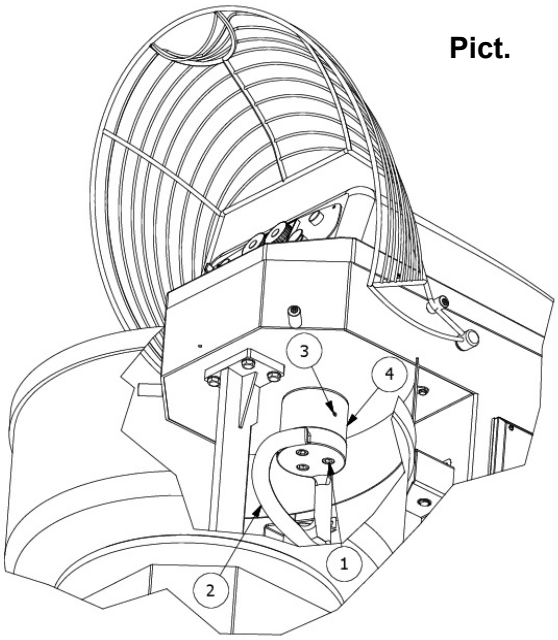
Pict.5.



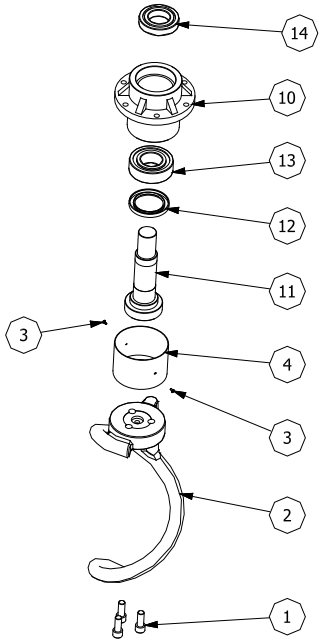
Pict.5.



Pict.



Pict.



Proceed as follows:

1. Unscrew the screws Pos.2 and Remove the head cover Pos.1 (look at the Pict. 5.5)
2. Loosen the four nuts Pos.4(look at the Pict. 5.5)
3. Loosen the nuts Pos.5 (look at the Pict. 5.5) to loosen the belts tension
4. Unscrew the screws Pos.56 (look at Pict. 5.6) and remove the piece (Pos. 13 in the drawing enclosed)
5. Remove the pulley Pos. 62 (look at Pict. 5.6)
6. Unscrew the screws Pos.1 and remove the spiral Pos.2 (look at Pict. 5.7)

7. Unscrew the screws Pos.3 and remove the piece Pos.4 (look at Pict. 5.7)
8. Unscrew the screws Pos.78 (look at Pict. 5.7) than remove the element (look at Pict. 5.8) composed of pieces Pos. 10, Pos. 11, Pos. 12, Pos. 13
9. Remove the piece Pos. 11 (look at Pict. 5.8) and replace the bearings.

5.3 POSSIBLE FAILURE AND/OR ANOMALIES

ANOMALY	POSSIBLE CAUSE	POSSIBLE REMEDY
By pressing the key start, the machine does not start	Mancanza di energia elettrica nella rete	Verificare il contatore generale, la presa, la spina e il cavo di alimentazione
	Emergency button pressed	Re-set the emergency button in turning it in clockwise direction.
	Bowl cover lifted up	Close the cover bowl
	Main power switch on position " O "	Turn the main O- I switch to position " I ".
	Start button defective	Check and, if needed, replace the defective parts.
During mixture cycle phase spiral and/ or bowl slow down	The transmission belts concerned are loosen	Adjust the belt tension
The rotation direction of the bowl is not correct	The phases are inverted	Reverse on the plug the position of two phases

CHAPTER 6. LIST OF ENCLOSED DOCUMENTS

6.1 –Drawing SP60-SP80-SP100-SP130-SP160-SP200-SP250

6.2 – Spare parts SP60-SP80-SP100-SP130-SP160-SP200-SP250

6.3 –Drawing SP80R-SP100R-SP130R-SP160R-SP200R-SP250R

6.4 - Spare parts SP80R-SP100R-SP130R-SP160R-SP200R-SP250R

6.5 –Drawing SP80CR-SP100CR-SP130CR-SP160CR-SP200CR-SP250CR

6.6 - Spare parts SP80CR-SP100CR-SP130CR-SP160CR-SP200CR-SP250CR

6.7 – Wiring diagram