


**IP** *bake*



***ISP 120 E***

Congratulations with the purchase of this spiral mixer.

This machine has been tested thoroughly in our warehouse in 

ENG

For correct use and long service life of your spiral mixer, we recommend that you read this manual attentively before starting to use the machine.



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## NOTICE


The use of this or any industrial equipment may involve hazards such as hot surface, sharp objects, or danger from exposure to the electrical power. This manual is provided to assist you in the safe and efficient use of our equipment.

All equipment, whether considered hazardous or not, should be used in accordance with principles of good manufacturing practice.

The operator of this equipment must be of a legal age. Before operation, please read and follow the instructions carefully for maximum safety, and to obtain the best use of our equipment.

## 1. INTRODUCTION

### 1.1 BRIEF INTRODUCTION

This handbook aims at introducing you on how to install, operate and maintain the spiral mixer. 

Thanks for choosing  as your supplier. Any question, please contact our local office or dealer that will provide you with instant and ideal service.

### 1.2 SPECIFICATION

	<b>ISP120 E</b>	<b>ISP2</b>
<b>CAPACITÉ FARINE   FLOUR CAPACITY   BLOEMCAPACITEIT</b>	6 - 80 kg	
<b>CAPACITÉ PÂTE   DOUGH CAPACITY   DEEGCAPACITEIT</b>	9 - 120 kg	
<b>COULAGE   LIQUID CAPACITY   VLOEISTOF CAPACITEIT</b>	3 - 40 L	
<b>PUISSANCE MOTEUR   MOTOR POWER   MOTORVERMOGEN</b> Spirale   Spiral   Spiraal Cuve   Bowl   Kuip	9,2 kW 0,55 kW	
<b>BREAKER VALUE AT 380V</b>	40 A	
<b>Trs/Min à 50 Hz   R.P.M. at 50 Hz   Omw/min bij 50 Hz</b> <b>1re/2ième vitesse   1st/2nd gear   1ste/2de snelheid</b>	110/220	
<b>NET WEIGHT MACHINE</b>	1300 kg	
<b>VOLTAGE   VOLTAGE   SPANNING</b>	380V 3Ph 50Hz	380V
<b>OPTION CUVE SUPPL.   OPTION EXTRA BOWL   OPTIE EXTRA KUIP</b>	✓	

## 2. SAFETY INFORMATIONS

### 2.1 SAFETY SYMBOLS

For your safety, please pay attention to the following symbol as marked on the machine:



This label warns that only qualified service personnel can access this position and the operator must disconnect the power before carrying out any cleaning or servicing.

### 2.2 WORKING SAFETY INFORMATION

The machine must only be used by personnel suitably trained for the purpose and who have been trained in the contents of this publication.

TO ENSURE SAFE WORK, COMPLY WITH THE FOLLOWING INSTRUCTIONS:

1. Install the machine in compliance with workplace safe work requirements.
2. Don't place the machine near a source of heat and this machine must not be used in a place where the surrounding environment may have a potential risk of explosion.
3. Use the machine with great care and never be distracted.
4. Do not wear loose fitting clothing or clothing with wide or open sleeves.
5. Do not remove, cover or modify the identification plates placed on the machine body.
6. Do not use the machine as a working surface or area and do not place any objects on it that are not required for normal working operations.
7. Do not use the machine with temporary electrical connections or non-insulated cables.
8. Periodically check the state of the power cable and the cable clamp on the machine body, have it replaced as soon as is necessary by qualified personnel.
9. Stop the machine immediately as soon as there is any defective or abnormal operation, a breakage, any incorrect movements, or unusual noises.
10. Before cleaning or carrying out maintenance, disconnect the machine from the electricity mains.
11. Use protective working gloves for cleaning and maintenance.
12. For all extraordinary maintenance, consult the manufacturer or qualified and authorised personnel.
13. Do not use water jets or spray to clean the machine.
14. When sharp accessories are manipulated, use cut-resistant gloves.

## 3. INSTALLATION

### 3.1 GENERAL INSTALLATION REQUIREMENTS

**NOTE:**

It is most important that this machine is installed correctly and that the operation is correct before use. Installation shall comply with local electrical, fire, health and safety requirements.

This machine is designed to provide years of satisfactory service. Correct installation is essential to achieve the best performance, efficiency and trouble-free operation.

### 3.2 INSTALLATION

This appliance shall be installed with sufficient ventilation to prevent the occurrence of unacceptable concentrations of health harmful substances in the room.

Installations must be carried out by qualified service persons only. Failure to install equipment to relevant codes and manufacturer's specifications in this section will void the warranty.

Components having adjustments protected (e.g. paint sealed) by the manufacturer are only to be adjusted by an authorised service agent. They are not to be adjusted by the installation person.

It is the responsibility of the owner to supply and arrange for the connection of all services to the machine.

### 3.3 UNPACKING

On receipt of the machine, carry out the following: Remove all packaging and transit protection including all protective plastic coverings from outer panels.

Check equipment and parts for damage. Report any damage immediately to the carrier and dealer. Never attempt to operate the machine with damaged parts.

Report any deficiencies to the dealer that supplied the machine.

### 3.4 LOCATION

1. Select a location for the machine with a minimum of 0.6m space around the machine for operating, cleaning and servicing.
2. Position the machine in its proper working position. The machine must be installed on a flat, solid and dry floor.
3. It is recommended that the machine is level from front to back and from side to side. This will ensure the greatest stability.

### 3.5 ELECTRICAL CONNECTION

1. An electrical supply should be available within the reach of the included power cord. Do not use extensions to connect the machine's power cord to the electrical supply.
2. Before making the electrical connections, read the specifications on the rating plate to ensure that they comply with those of the electrical supply. Electrical connection should be made by a qualified service technician who will observe all applicable safety codes and the national electrical codes.
3. Check the correct connection (rotation) of the machine. If necessary, you will have to exchange the position of 2 phase wires.

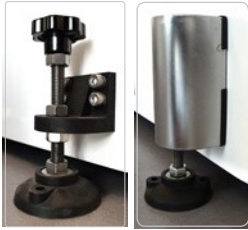
When connecting this machine to the mains supply, ensure that the following is carried out:

1. An isolating switch is fitted within 2m of the machine.
2. A grommet/gland is fitted around the power supply cord entry hole into the machine.
3. All wiring connections must be checked and tight.

Once the electrical connection has been made, the machine is ready for use.

ELECTRICAL SUPPLY REQUIREMENTS 380VAC, 50Hz, 3PH+E

## 4. INSTALLATION



The machine is ready for installation.  
 The machine has to be installed on a horizontal and smooth surface.  
 Adjust the four screws to make sure the machine seats firmly on its four corners.  
 Mount the protection caps.

## 5. ELECTRICAL SUPPLY

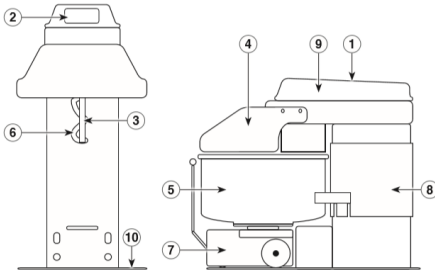


Please connect the machine to the correct electrical supply, as indicated on the identification plate.

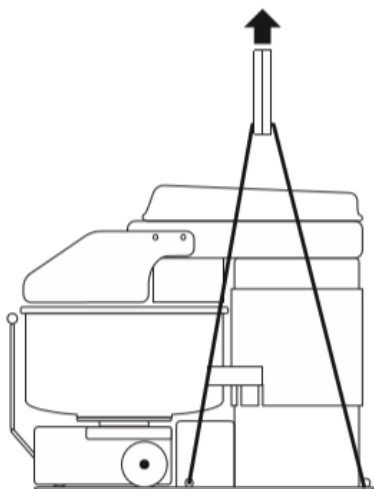


After the machine has been connected to the electrical supply, first of all check the direction of rotation of the kneading spiral and the bowl. Seen from above, both kneading spiral and bowl should rotate clockwise. The arrow on the bowl indicates the rotating direction of the bowl.

If the rotating direction is wrong, please exchange any two of the electrical phase cables to reverse the rotating direction.



- 1. Top Cover
- 2. Operation Panel
- 3. Center Pillar
- 4. Safety guard
- 5. Bowl
- 6. Hook
- 7. Trolley
- 8. Frame
- 9. Electric box
- 10. Base plate

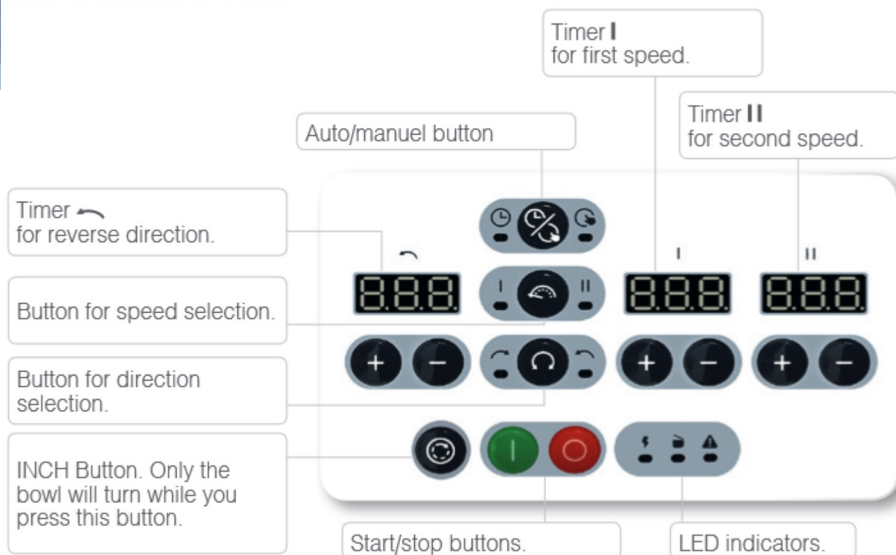


- A.** Check encasement to see if there is any damage before unpacking the case.
- B.** After unpacking the top and sides of wooden case, use strong nylon rope to tie to the four rings. Then lift the machine from the bottom wooden board and move it to the installation position.

## 7. SAFETY INSTRUCTIONS

- 1.** The machine is only used to knead dough. Don't overload the mixer. The maximum load of dough is 200 Kg. (for less than 125 Kg flour)
- 2.** Please read this operation manual carefully before operation or maintenance. The nameplate should be taken attention as well.
- 3.** All the safety cover and side boards should be closed during operation unless during maintenance.
- 4.** Put the stop switch and emergency switch in the right position before the machine start-up.
- 5.** Check whether the trolley has been located well before the machine start-up. If not, the indication lamp will be on. If the lamp is off, please turn the bowl and move the bowl ahead slightly to make the bowl and friction-gear match well.
- 6.** Check whether the power cables are not pressed or enlaced.
- 7.** Check whether the machine will stop when opening the safety guard.
- 8.** All the operators should comply with safety rules on clothing and wearing.
- 9.** Don't approach the machine when the machine is running unless you are the operator. Operator himself should not lean on the machine.
- 10.** You must call a professional technician when there is electric trouble.
- 11.** Turn power off before maintenance.
- 12.** The machine must be in ground protection.
- 13.** Forbid girding metal during electric maintenance, and warn others against touching the button.
- 14.** Turn off the power after daily use.
- 15.** Press every key only with finger, don't use any other tools

## 6. CONTROL PANEL

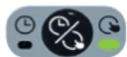


## 7. OPERATION OF THE SPIRAL MIXER

### 7.1 TIMERS

The timers are located at the upper side of the panel. Timer ↶ is for reverse direction, timer I for first speed, timer II for second speed. The 3 timers display the time in minutes.

The timers are set by means of the + and - keys. If you press the + once, the set time will increase by 10 seconds. The maximum time that can be set is 20 minutes. After 20 minutes, the timer will start from 0 minutes again. Press the - key for reducing the set time by 10 seconds.



During MANUAL operation, the timers will not work..

When the ⏻ key is pressed, the timers will return to the set time.

When the spiral mixer is switched ⏻ the timers will indicate the set time. When the timer starts to work, the time indicated on the timer will be reduced 10 seconds at a time until it reaches 0..


When the safety cover is raised during AUTOMATIC operation ⏻ the timer will stop at the current position. When the spiral mixer restarts after such a stop, the timer will continue from the current position to finish the remaining time.




## 7.2 INDICATION LEDS



These LEDS show the operation mode in which the spiral mixer is functioning:


### AUTO/MANUAL” operation

 When the AUTO LED lights up, the spiral mixer is functioning in AUTOMATIC mode..

 When the MANU LED lights up, the spiral mixer is functioning in MANUAL mode.



### Bowl direction

 When the  LED lights up, the bowl will rotate in FORWARD direction (clockwise).

 When the  LED lights up, the bowl will rotate in REVERSE direction. (counterclockwise)


### Speed


 When the  LED lights up, the spiral mixer is operating in first speed.

 When the  LED lights up, the spiral mixer is operating in second speed.












### Fonction




 The ON-LED lights up when the machine is functioning.


 The “STOP”-LED lights up only when the safety cover is raised during operation of the machine.

 O.L. (Over-Load): This LED lights up when the overload relay is on. After the fault (voltage drop, mixer overload or one of the cable connections has come loose) has been removed, this LED will turn off.

## 7.3 AUTOMATIC OPERATION






- A.  Press the AUTO/MANU -button until the AUTO-LED lights up.
- B. Press the  and  buttons below timer  to set desired time for reverse direction..
- C. Press the  and  buttons below timer  to set the desired time for first speed.
- D. Press the  and  buttons below timer  to set the desired time for second speed.
- E. Press the  button to start the machine.


After completing the above procedure, the machine will start operating. It will work in reverse direction until timer  reaches 0. Then the machine will start operating in first speed until timer  reaches 0. Finally the machine will start operating in second speed until timer  reaches 0. The machine will now stop automatically.


During the AUTOMATIC operation the machine will stop when you lift the safety cover. The timer will stop at its current position. The timer will restart from that position after you have closed the safety cover and pressed the  button.

Upon pressing the  button, the timers will return to the initial set time and restart.

#### 7.4 MANUAL OPERATION

- A.  Press the AUTO/MANU-button until the MANU-LED lights up.
- B.  Press speed button to select the desired speed.
- C.  Press direction button to select the desired rotation direction
- D. Press the  button to start the machine.
- E. Press the  button to stop the operation.

 The timers will not function during manual operation. The bowl direction cannot be reversed in second speed.

 The mixer will always start in first speed, even if you select speed **II** to start. When the mixer is running in first speed, you can then press **II** to switch to second speed.

#### 7.5 MANUAL SWITCH

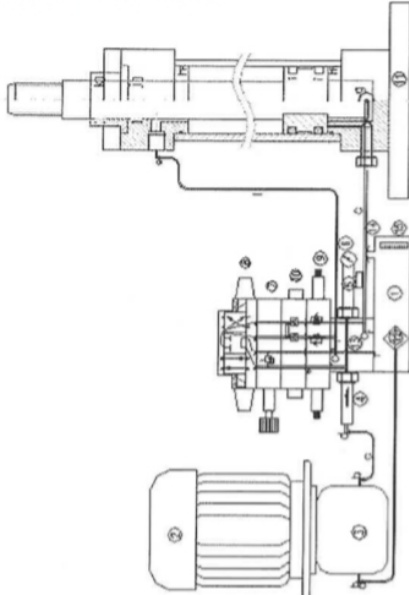
When the digital panel is damaged, the mixer can be operated with the manual switch that is located at the left side of the top cover. You can select first or second speed manually without timer.



## 11. REMARK:

1. Move the head of the machine up and down at least one time before daily use.
2. Do not operate the machine when the bowl is not located well.
3. Do not move the bowl when the head moves up and down.
4. Trolley should be pushed into the mixer steadily, neither too slow nor too fast. If you find it difficult to push trolley, move the trolley backward. Adjust the track, and push it into the machine again.
5. The bowl should remain in its original position before finishing daily work, don't push it out.

## 12. HYDRAULIC SYSTEM



### 1. Start the machine and hydraulic system.

Turn on the power press "UP" or "DOWN" button, the motor will run and the hydraulic system starts to work.

### 2. Head up

Press "UP" button, the cylinder moves upward to push the mixer head to upper position.

### 3. Head down

Press "DOWN" button, the cylinder moves downward to push the mixer head to mixing position.

#### 4. What can I do if the head moves neither up nor down?

- A. Check whether there is enough hydraulic oil in oil tank.
- B. Check whether there is any trouble with gear pump.
- C. Check the pressure regulating valve, and adjust it if necessary.
- D. Check if there is any trouble with magnetic valve.
- E. Check the motor and the motor pump to see if there is any trouble.
- F. If above problems don't exist, turn off the power, tear down the pressure valve to clean (use diesel oil or gasoline)

#### 5. How to deal with it if the head moves either too fast or too slowly?

Open oil gauge, then press "UP" button to move the mixer head upward, and then press "DOWN" button, at the same time, another person adjusts throttle valve until the pressure gauge shows about 40Kg/cm<sup>2</sup>.

#### 6. Why is the frame of the machine shaking when mixing? How to deal with it?

The reason is that the retaining pressure goes down in cylinder.

1. Check if there is any oil leakage in cylinder.
2. Check the connector of oil tube to see if any leakage.
3. Check the gap between every valve to see if any leakage.
4. Check the valve.
5. Check the oil O ring of the cylinder.

#### SOLUTION:

1. Replace O ring of the cylinder.
2. Replace the oil tube.
3. Replace ring seal of the oil equipment.
4. Open oil gauge, then press "UP" button to move the mixer head upward, and then press "DOWN" button, at the same time, another person adjusts throttle valve until the pressure gauge shows more than 200Kg/cm<sup>2</sup>. Leave the machine in this position for about 10 minutes and check if the pressure has gone down. If not, you'll have to repair the cover or change it.

Pressure values for your reference during operation

MOVEMENT	PRESSURE DISPLAY (Kg/cm <sup>2</sup> )
UP	0
TOP	0
DOWN	40
BOTTOM	200

After the pressure being well adjusted, press "UP" button to make the mixer head move upward. At the same time another person closes the oil gauge until the pressure gauge shows 0 Kg/cm<sup>2</sup>.

