



**60-75-100 L**

**SPIRAL MIXER**

MODEL: ISM 60-75-100

User manual - Instructions

EN



## MANUFACTURER'S DATA

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## TECHNICAL CHARACTERISTICS

Type	Model	V	A	Hz	Phases	kW	Weight
ISM 60-32	7061.0120	380	8	50	3P	1,5 – 2,5	180
ISM 75-32	7061.0125	380	8	50	3P	1,5 – 2,5	280
ISM 100-32	7061.0130	380	11	50	3P	3,5 – 6	400

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# 1 Warning

Read this instruction manual before switching the machine on. Keep this instruction book together with the appliance for future consultation.

These warnings were drafted for your safety and for that of others. Please read them carefully before installing or using the appliance.

The appliance is intended for professional use and must be utilized by qualified personnel trained to use it.

Any modification which may be necessary on the electrical system to enable installation of the appliance, must be carried out solely by competent personnel.

It is dangerous to modify or attempt to modify the characteristics of this appliance. Starting up. This unit must be grounded for your protection to avoid the risk of electrical discharges. It should be connected directly to the ground terminal of the control cabinet. The ground cable must not be cut or disconnected from the machine.

The introduction of an object or foreign body other than that necessary in the manufacture of the dough is totally forbidden.

Before doing any maintenance or cleaning jobs, disconnect the appliance from the electrical mains and allow it to cool. The acoustic power emitted by the machine is lower than 70 dB.

**NOTE:** The manufacturer will not be held responsible for the following:

- Incorrect installation of the machine
- Use of non-original spare parts
- Electrical supply problems
- Non authorized alterations
- Lack of daily maintenance
- Improper and/or incorrect use of the machine
- Non-compliant use according to current regulations in the country where the machine will be installed.

## 2 Preassembly Instructions

### 2.1 Storage and Transport

The machine has been sent completely assembled and packaged on a wooden platform with a plastic wrapping to protect the appliance from possible sporadic exposure to rain.

The machine must be transported in a completely closed vehicle with platform and must not be left outside.

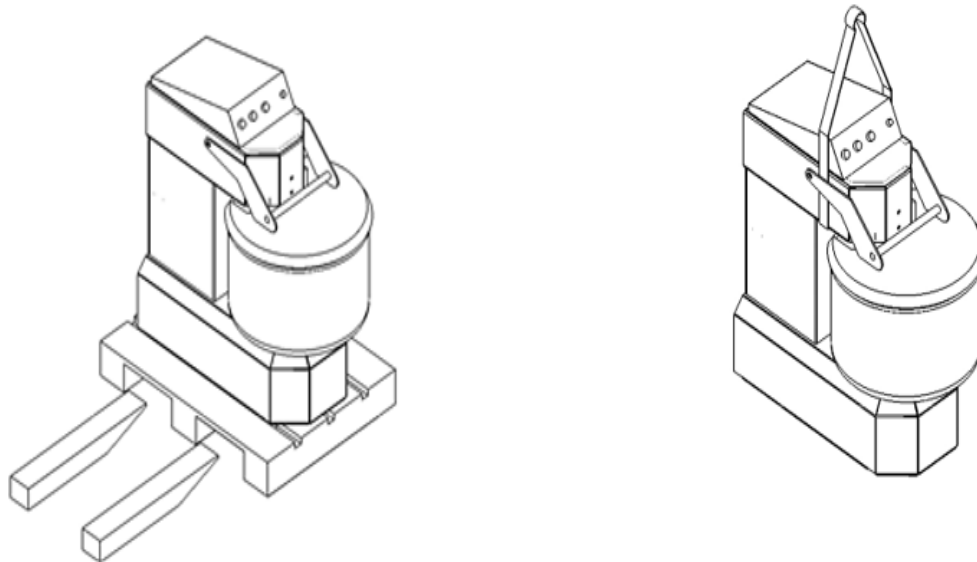
In any case, the operations to package and secure the different accessories to the machine must be carried out before transporting and moving.

**PAY ATTENTION AT ALL TIMES WHEN UNLOADING THE MACHINE AS THE PACKAGING AND THE MACHINE ITSELF COULD BE DAMAGED.**

Unloading the two-arm mixer from the truck or method of transport used, should be carried out with the help of a forklift truck, a rolling crane or derrick, however if two systems are available the first system should be used.

**FORKLIFT TRUCK:** Place the truck forks below the packaging pallet, as far in as possible. Lift the forks gently and place the packaged machine onto the floor, then unpack. If the forks from the truck appear not to go in far enough, then another unloading method should be considered.

**ROLLING CRANE:** Pass the slings underneath the two-arm mixer packaging; insert the sling handles onto the crane hook, ensuring it is well supported so that it does not fall. Then place the machine onto the floor and unpack. Bear in mind the center of gravity of the machine is situated near the main body of the machine.



## 2.1.1 Unpacking

The two-arm mixer comes wrapped in a sticky plastic layer (retractile film), which stops dirt and dust from getting inside during transport. It is then tied to the palette with GREEN NYLON strapping and WOODEN BOARDS which impede any movement of the machine inside the packaging. Finally, it is then placed inside a wooden cage specially designed for its transport.

Unpacking should be carried out in the following manner:

- Place the packaged machine totally flat on the floor.
- Remove the nails which hold down the lower part of the cage with the packaging pallet.
- Lift the top part of the cage with the help of a forklift truck or a rolling crane.
- Cut the GREEN NYLON strapping and remove the boards, the machine can be removed from the pallet.
- Remove the retractile film covering.
- Place the slings over the head of the bedplate of the machine and lower it onto the floor.

## 2.1.2 Site

The machine should be placed in a light, accessible place, where the operator can move freely with no difficulties.

## 2.2 Condition of Use

The machine is manufactured to be used inside. It is not designed to work outside. It must be protected from falling water.

## ATTENTION!

Machine storage: -25°C to +50 °C

Ambient temperature during operation: +4 °C to +40 °C.

This machine is for professional use and must be used by staff trained to use, clean, and maintain it, in terms of reliability and safety.

Use the machine in adequately lit premises (See applicable technical standard for the country of use. In Europe, refer to standard EN 12464-1)

When handling the machine, always check that the parts taken hold of are not mobile elements: risk of dropping and injury to the lower limbs.

The machine is not designed for use in explosive atmospheres.

### 2.2.1 Positioning the machine

The machine is placed directly on the floor, ensuring that this is completely flat. It does not need to be fixed to the floor.

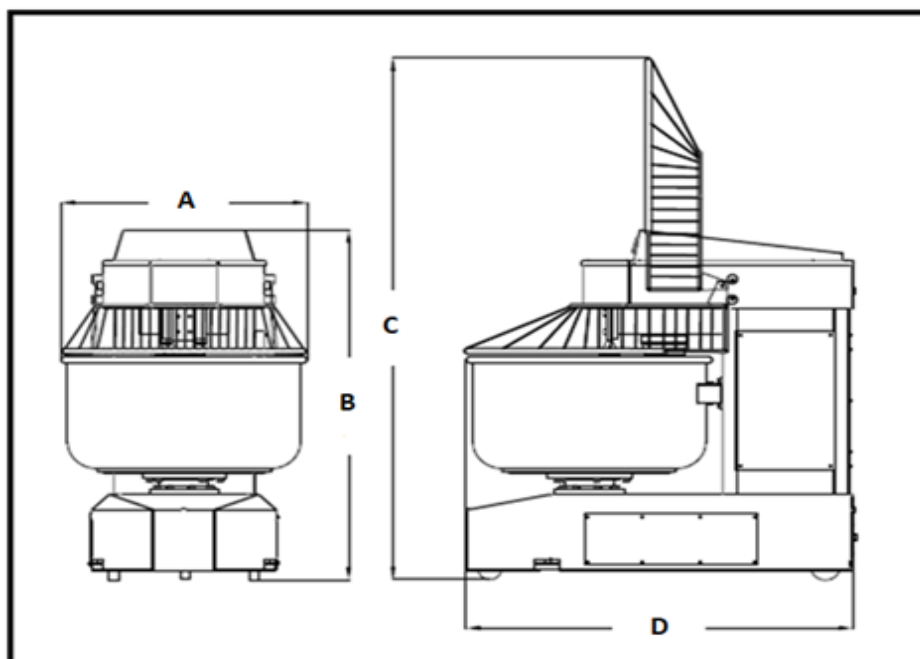
The rear of the machine should be 35 cm out from the wall to enable the protection unit to be raised and also the aeration of the motor ventilation grids.

### 2.2.2 Operator Position

For maximum safety and comfort and for the machine to work properly operators should place themselves on the operation side, here the operator can easily reach the Emergency Stop and the rest of the controls.

For the final operation of removing the dough, the operator should stand in front of the bowl once the protection has opened.

## 3 General Dimensions





Model	A (mm)	B (mm)	C (mm)	D (mm)	Weight (kg)
ISM 60	300	650	800	650	60
ISM 75	400	800	950	950	120
ISM 100	480	1000	1150	950	140

## 4 Technical Specifications

The technical specifications of capacities and electrical powers of the machines are detailed below.

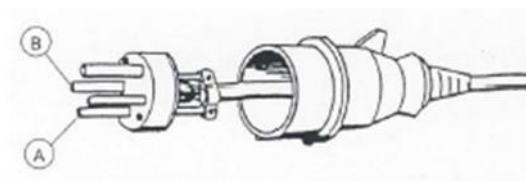
Model	Kneading Cap. (kg)	Flour Cap. (kg)	Electric bowl power (kW)	Spiral electrical power (kW)
ISM 60-32	30	20	0	1,5 – 2,5
ISM 60-32S	30	20	0,55 kW	1,5 – 2,5
ISM 75-32	45	30	0	1,5 – 2,5
ISM 75-32S	45	30	0,55 kW	1,5 – 2,5
ISM 100-32	75	50	0	3,5-6 kW
ISM 100-32 S	75	50	0,75 kW	3,5-6 kW

## 5 Electrical Connection

The electrical connection must be carried out by authorized professionals, in accordance with the standards in force in the country where the machine is installed. The premises must be fitted with the adequate circuit breaker for the total load. The appliance must be fitted with a power plug for disconnection.

Before working on any electrical part of the machine, the Plug must be disconnected from the ELECTRICAL SUPPLY.

The electrical equipment that makes up the machine has been constructed in compliance with the standards in force on Safety of Machinery - Electrical Equipment of Machines EN 60204-1. Apply the connections cable of the machine to a retention plug, suitable for the disconnection device installed, and Plug into the socket. In line with the operation instructions, start up the machine and check that the spiral rotates in the direction indicated by the arrow positioned on the spiral support cover. Otherwise invert the position of the two-phase wires in the plug: e.g., wire A to wire post B or vice versa. The machine does not require any other type of preparation and is ready for use.



## ATTENTION!

Connection to the electrical power supply must be done according to proper professional practice by a qualified and authorized person (see current standards and legislation in the country of installation).

If an adapter is used on the socket, a check must be made that the electrical characteristics of this adapter are not lower.

than those of the machine.

Do not use multiple plugs.

The AC power supply to the machine must comply with the following conditions.

- Maximum voltage variation:  $\pm 5\%$

- Maximum frequency variation:  $\pm 1\%$  on a continuous basis,  $\pm 2\%$  over short periods

**ATTENTION: the electrical installation must comply (for design, creation, and maintenance) with the legal and standard requirements in the country where used.**

Check that the electric mains voltage, the value shown on the specification plate and the label on the power cable are the same.

- The machine's electrical power supply must be protected against voltage surges (short-circuits and excess voltages) by using fuses or thermal relays of the appropriate gauge relative to the place of installation and machine specifications.

**ATTENTION: Concerning protection against indirect contact (depending on the type of power supply provided and connection of the exposed conductive parts to the equipotential protection circuit), refer to point 6.3.3 of EN 60204-1 (IEC 60204-1) with the use of protection devices for automatic shut-off of power in the event of an insulation fault with a TN or TT, system, or for the IT system, with the use of a permanent insulation or differentials controller for automatic shut-off. The requirements of IEC 60364-4-41, 413.1 must apply for this protection.**

**ATTENTION: Failure to comply with these instructions means the customer runs the risk of machine failure and/or accidents due to direct or indirect contacts.**

## 5.1 Grounding

Check the efficiency of grounding on the installation itself. The grounding cable must not be with the gas or water pipes or with telephone cables. Connect the plug and the respective grounding cables in accordance with the local electrical standards.

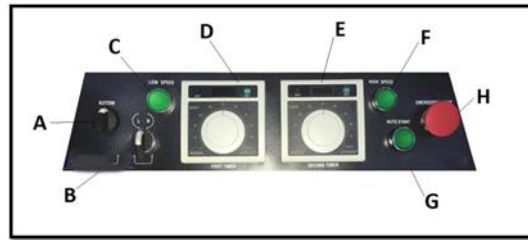
## 5.2 Warnings

Any operation that requires access to the parts under voltage must be done by a qualified ELECTRICAL TECHNICIAN, and the following procedure must be carried out.

- Switch of the machine.
- Disconnect the electricity at the mains switch.
- Remove the plug from the socket.
- Carry out the maintenance or repair work.
- Connect the machine to the mains supply.

## 6 Mixer Functioning

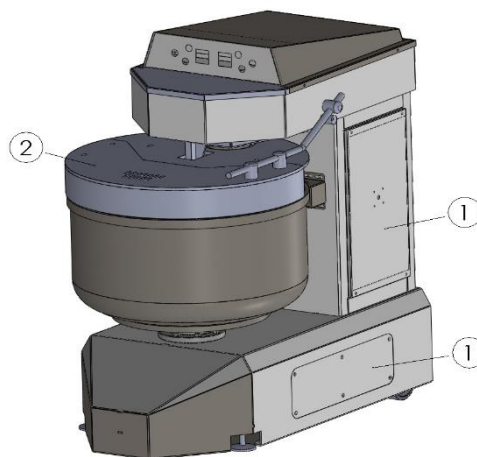
## 6.1 Machine Controls



A	Two-position selector	Mode Selector Automatic / Manual
B	Three-position Selector	Allows us to choose of the bowl rotation
C	First Speed Button	Pressing will activate the rotation at First speed
D	Timer	First Speed Timer
E	Timer	Second Speed timer
F	Second Speed button	Pressing will activate the rotation at second speed
G	Auto Start	Pressing will activate auto mixing cycle
H	Red Pushbutton	Emergency button: pressing will be stop machine immediately.

## 6.2 General Circuit Breaker

To provide power to the control panel of the machine turn the main switch to "I"



## 7 How to use the mixer

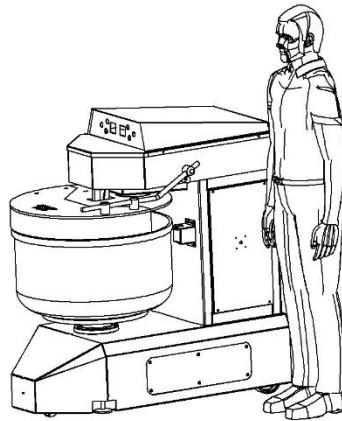
NOTE: When reading this chapter refer to the pictures of the control panels given in Chapter Functioning.

### 7.1 Operator Qualification

The machine should be operated only by trained, qualified and authorized personnel who have read and understood the information contained in this manual.

### 7.2 Workstation

The Fig. Workstation shows the work area in which the operator can safely use the machine. The machine control position is in front of the control console from which the operator manages all the processing parameters.



### 7.3 Commissioning

#### Machine loading

Lift the guard and, according to the recipe, pour the ingredients into the bowl without exceeding the maximum dough mixing capacity. The ingredients can be put in in any order.

#### Controls adjustment

Set the working times for the first and second speeds of the relevant timing devices.

#### Operation

Turn the main switch on to energize the power board, lower the safety guard, select the bowl counterclockwise rotation direction (see the arrow) for standard use of the machines and press the button Fig. Controls.

#### CAUTION

If the machine is stopped to carry out maintenance, there is a residual risk that when the protective grille is opened the spiral will continue to turn by inertia. This risk is not present if the machine is working with a full load. This is because when the grille is opened in this mode, the inertia of the spiral will be annulled by the processed product (dough). Moreover, if the machine is carrying out a complete idle cycle, the spiral will take a few seconds to stop completely because of the force of inertia. In this case the operator must take care when entering the risk zone.

NOTE: Rotate the bowl clockwise (selector 2 Controls) for small quantities of dough.

### 7.4 Standart stopping procedure

Stopping procedure:

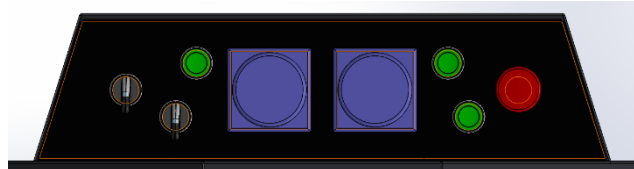
1. Make sure the work cycle is finished.

2. Turn the main switch to position 0.

## 7.5 Emergency Stop

Press the EMERGENCY button to stop the machine in an emergency:

- The machine stops.
- The emergency button remains blocked.



## 7.6 Starting the machine again after a manual emergency stop

1. Eliminate the cause of the emergency stop.
2. Release the EMERGENCY button.
3. The machine is now ready to be used again.

## 7.7 Switching off the machine

To switch the machine off:

1. Turn the main switch to position 0.
2. Turn the knife-switch situated upstream from the outside power supply cable to position 0.

# 8 Maintenance

**IMPORTANT:** Repair and maintenance work must be carried out by the Official Technical Service from DIRMAK MAKINA SAN. TIC. LTD. STI. or those authorized by them.

**IMPORTANT:** Before carrying out any maintenance, cleaning, or repair operations on the electrical part of the appliance, the electrical supply must be disconnected at the mains switch and the appliance must be unplugged from the electrical supply. As far as possible, work must be carried out with the machine disconnected and with no voltage. For all operations that could be dangerous the operator must have the possibility of checking that the plug remains always removed from the electrical supply. If the machine halts to carry out maintenance, there is a residual risk when opening spiral protection grille that this will continue to rotate through inertia. This risk does not exist if the machine is working fully loaded, since in this case the inertia of the spiral when opening the grille will be cancelled out by the product being prepared (kneading). Moreover, if the machine is carrying out an empty work cycle, there is the possibility that the spiral, due to inertia, takes a few seconds to come to a complete halt. In this case the operator should take great care when accessing the hazardous area.

## 8.1 When the machine is new

The machine should be tested with a little product so that possible manufacturing residues can be removed before starting the production phase.

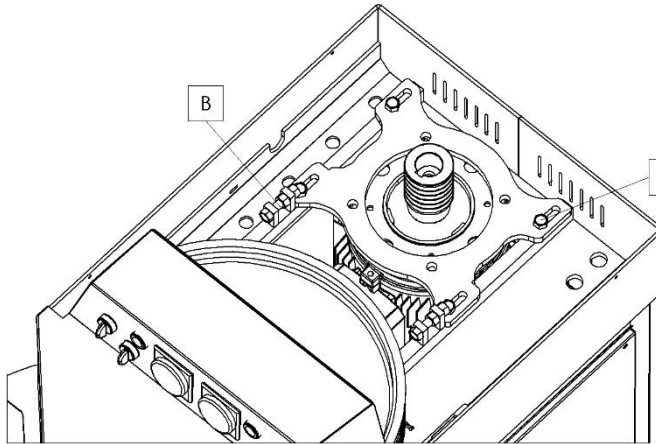
## 8.2 Daily Operations

Clean using hot water and food-safe degreaser, and dry with a clean cloth., after each day's work parts that come into direct contact with the dough.: contacts column, spiral and bowl.

## 8.3 15 hours of work

Check the tautness of the spiral movement transmission belts and the tautness of the bowl movement transmission belts.

### 8.3.1 Spiral Movements belts tautness



The belts must be regulated if, during the work cycle, the deceleration of the spiral is observed.

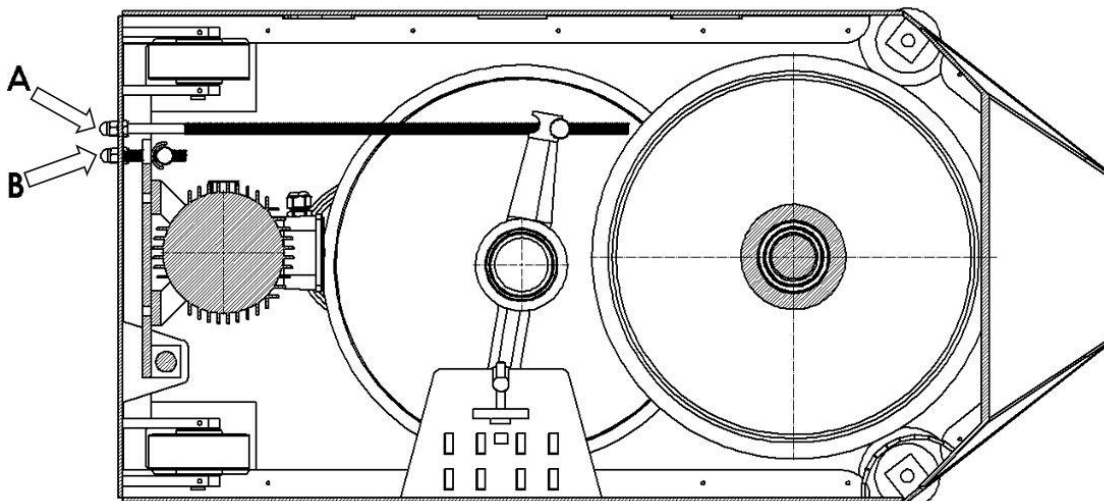
1. Release the screws (A)
2. Tighten the belts effectively use the screws (B).
3. Tighten the screws (A).

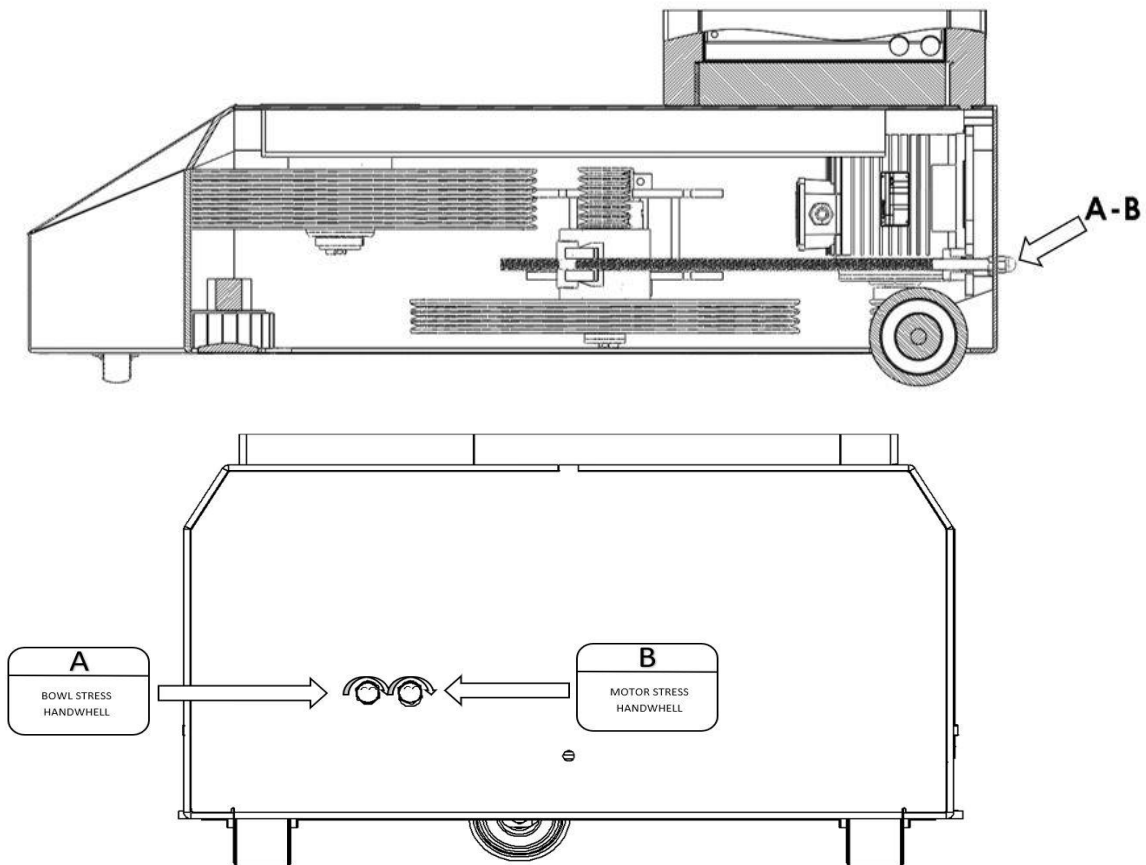
### 8.3.2 Others Models

The belts must be regulated if, during the work cycle, the deceleration of the spiral is observed.

1. Remove the head casing.
2. Release the four motor support screws (pos. A), without fully unscrewing, and then loosen the nut (pos.B).
3. Tighten the belts properly using the screw (pos.C) and lock the nut (pos.B).
4. Tighten the four motor support screws (pos.A).
5. Replace the head casing.

### 8.3.3 Bowl movement belts tautness





### 8.4 Month of work

Alter one month of work you must check again the bowl movement belts tautness and check the clean and the regulation of the drive bearings for the bowl.

If the bowl is not properly supported with the bearings, regulate as described below:

- Operation 1: release the screws ref. 8 and bring in the support.
- Operation 2: fasten all loose screws.

### 8.5 Each two years

Internal cleaning will be carried out ONLY by SPECIALIZED PERSONNEL.

### 8.6 Cleanning

#### Routine maintenance

Any operation that can be carried out by the user is considered routine maintenance. These interventions include cleaning, regular and preventive inspections carried out to ensure safe operation of the machine.

#### Operator's qualifications

Operator: Before carrying out routine maintenance safely, the user should first carefully read and understand the instructions and recommendations given in this section.

### 8.7 Motor Maintenance

As the motor is the part that makes the machine work, it needs special care.

- Clean every three months with compressed air, in this way the particles that block the passage and remain in the ventilation output causing the motor to heat up unnecessarily, will be dislodged.
- Once a year the motor will be serviced by a technician.

## Cleaning

**Danger:** Cleaning operations should only be carried out with the machine switched off and disconnected from the electric power supplies.

Regular cleaning of your machine will ensure its good working order.

We recommend the following:

- Clean the machine at the end of each shift.
- The cleaning of the machine keeps the most delicate parts in good working order and helps to spot any loosening of parts and any abnormal wear and tear.

Caution: Do not use jets of water to clean the control panels and the electric control box.

### Cleaning method

Only use water to clean the machine. The use of diluent or chemical products in general is forbidden.

Parts to be cleaned	Method and tools
Painted steel	Use warm water and food-friendly degreaser.
	Dry with a clean cloth
Control panels	Clean with a soft dry cloth
Electrical parts	Clean using a vacuum cleaner
Bowl and spiral	Use hot water and food-friendly degreaser.
	then dry using a clean cloth

### Cleaning Frequency

Frequency	Parts to be cleaned
Daily	Cleaning of the bowl, of the spiral and of the contrasting column
Weekly	Control panels and all the exterior part of the machine
Monthly	Motors
Monthly	Electrical components

Everything that is excluded in the previous section does not need special maintenance, but it is advisable.

- With the aid of a soft brush the dust that has been left on the surfaces can be removed. Under no circumstances can hard hairbrushes, abrasive, pointed or metal tools be used as they may damage the surface.
- To clean the inside of the bowl, and the spiral, use only hot water.

Do not use toxic products, solvents, irritants, abrasives, and products that may damage the surfaces.

Plastic spatulas or clothes may be used. Before starting up the machine, pay special attention that none of the material used for cleaning has been left inside the protection.



## 9 Fault Finding

BREAKDOWN	REASON	SOLUTION
Machine doesn't work.	Energy does not come to machine.	Check the supply voltage.
	Supply fuse blown.	Check the fuse.
	Engine heat blown.	Wait thermal cool, and switch on
	Circuit breaker is open.	Close circuit breaker.
Engine working noise is coming, but it is not suitable	On e of the feeding phase is missing.	Check phase one by one.
	Drive belts are missing or loose	Check the belt tension.
	There is a congestion in the mechanical movement	<b>Turn off energy!</b> and check manually spiral mixing tool. Inform technical service if there is congestion.
Machine receives energy bu the machine is not activated.	Engine heat is blown	Wait for thermal cooling and switch on.
	Safety Switches are not active.	Make sure that the bowl is above and protective closed.
	Switch mechanical adjustment damaged or broken.	Contact with technical service.
	Defective part in the control circuit (contactor-thermal-Button-etc ..)	Contact with technical service.

## 10 Safety

### 10.1 Safety Criteria

During the design and construction of this machine the manufacturer has adopted the criteria and devices needed to satisfy the essential safety requirements imposed by the Machinery Safety Directive 2006/42/EEC and subsequent amendments, by the Low Voltage Directive 2006/95/EEC and subsequent amendments and by the Electromagnetic Compatibility Directive 2004/108/EEC and subsequent amendments.

The manufacturer strongly recommends careful observation of the instructions, procedures and recommendations contained herein as well as strict observation of the current safety regulations regarding the work environment. This also applies to the use of both the correct personal safety equipment and machine protection devices.

**Danger:** Do not wear loose clothing, ties, chains, or watches that could get caught in the moving parts of the machine.

**Note:** The manufacturer will not be liable for any damage or injury to persons, animals or things caused by nonobservance of the safety rules and/or recommendations given in the documentation supplied.

### 10.2 Hazardous areas and residuals risks

This manual indicates all the procedures during which residual risks for the operator are present. The residual risks can be eliminated by carefully following the procedures indicated in this manual and by using the recommended personal safety equipment.



Obligation to use protective gloves.



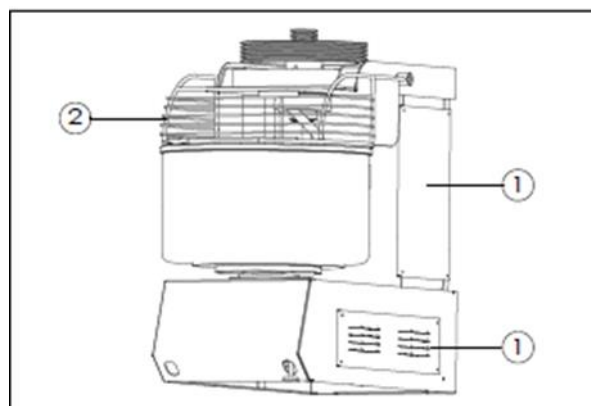
Obligation to use protective footwear.



Obligation to use work aprons.

RESIDUAL RISKS		
OPERATING STAGE	RISKS	PPE to use:
INSTALLATION		
Area around the machine when moving it  Area in which the machine is handled, packed or unpacked	Risk of striking and crushing the operator	
OPERATING STAGE	RISKS	PPE to use:
USE		
Use of the machine	<ul style="list-style-type: none"> <li>• Risk of striking and crushing the operator.</li> <li>• Risk of entanglement in the machine spiral (*)</li> </ul>	
OPERATING STAGE	RISKS	PPE to use:
ROUTINE MAINTENANCE		
Areas in which routine machine maintenance is carried out	Risk of blows and abrasions.	
SCHEDULED MAINTENANCE	RISKS	PPE to use:
Areas in which scheduled machine maintenance is carried out		
	Risk of blows and abrasions.	

**(\*) CAUTION:** If the machine is stopped to carry out maintenance, there is a residual risk that when the protective grille is opened the spiral will continue to turn by inertia. This risk is not present if the machine is working with a full load. This is because when the grille is opened in this mode, the inertia of the spiral will be annulled by the processed product (dough). Moreover, if the machine is carrying out a complete idle cycle, the spiral will take a few seconds to stop completely because of the force of inertia. In this case the operator must take care when entering the risk zone.



### 10.3 Mixer Safety measures

The safety measures used by the spiral kneading machine with fixed bowl are the following:

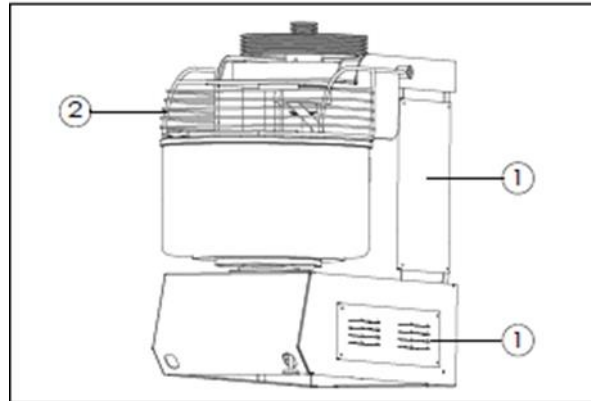
Fixed and moveable guards

- All power transmission components are shielded by fastened guards 1, in compliance with the EN 953 standard.

- Protective grille 2 which prevents access to the bowl during the work process.

NOTE All the fixed and moving covers do not cause ulterior hazards.

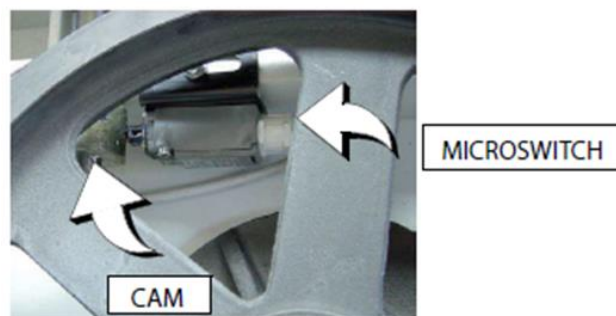
All the moving covers, including when they are open, are firmly attached to the machine and cannot be removed.



Passive safety devices

- Passive safety devices are devices or resources that eliminate or reduce risks to operators without any active intervention by the operators. Limit switch devices

The machine is equipped with the following limit microswitch actuated by means of a cam. Its purpose is to stop the machine if the protection grille is opened.

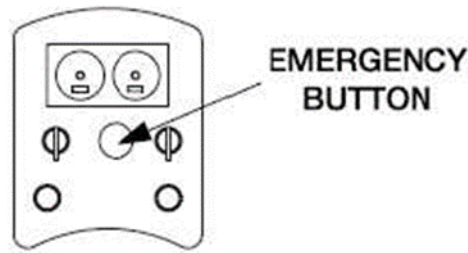


Reset and Circuit protection: In accordance with EN 60204-1, mixer circuits, the control and power circuit are protected by fuses. All the electrical components are within the fixed protectors, thus impeding direct contact with them.

Compliance with the EN-453 guarantees the application of all the Standards mentioned within it (Electricity, Safety Distances, Acoustics, Electromagnetic compatibility, Hygiene, Cleanliness, Indicators, etc...)

Active safety devices:

Emergency stop: The emergency button is located on the control panel and allows the operator to stop the machine in an emergency.



## 11 Disactivating the machine

The machine must be deactivated when it reaches the end of its technical and operational life. It should be put out of service and no longer used for the purposes for which it was planned and constructed, allowing the possible reuse of the primary products of which it is made up.

Deactivation procedure:

All machine deactivation and demolition operations must be carried out by duly trained, properly equipped staff.

1. Turn off the machine
2. Disconnect all electrical power sources.
  - a. Electrical power supply. Disconnect the power cable from the switchboard terminals.
3. Remove the following parts:
  - a. Electrical and electronic parts.
  - b. Hydraulic installation.
  - c. Non-metallic parts and components.

**HAZARD** Hand over all finished oils to the company for the disposal of waste. Eliminate in line with current regulations on electronic components, namely: batteries, condensers, etc... The machine is made using non-biodegradable materials. Take the machine to an authorized deposit for disposal.

**NOTE** manufacturer is in no way liable for any damage to persons, animals, or objects as a result of use of individual machine parts for functions or situations different to those originally envisaged.

## 12 Guarantee

Our products are guaranteed against every failure or manufacturing defect, within a correct use of them.

The guarantee does NOT apply to the substitutions and mending appearing from:

- A normal use of the machine
- Deterioration or accidents due to negligence.
- Lack of maintenance.
- External agents such as power supply voltage fluctuations or atmospheric elements such as storms or

floods, or any other of similar origin.

The guarantee is limited to replacing and repairing parts which have failed because of manufacturer defects, without covering the corresponding labor and call-out costs (except in Spain, where these costs are included).

The following materials are excluded from the warranty: glass, light bulbs, gaskets, fabrics, ceramic tiles, refrigerant gas, oil changes, hinges and other parts that are subject to wear and tear.

The normal material guarantee for electrical and mechanical components is 12 months, except for:

- Heating elements in Kwik-co, Metro, Sirocco and Modular ovens, which are covered for 5 years.

### **Guarantee conditions**

The materials must be installed, used, and maintained in line with the conditions set out in this “Instructions Manual”. Any problems which require the intervention of an engineer must be carried out by the Official After-Sales Service of DIRMAK MAKINA SAN. TIC. LTD. STI. or by one of our authorized distributors. Changing any part during the warranty period does not imply an extension of the warranty beyond the initially agreed period. In this case, only the warranty for the replaced part or piece will be extended by 6 months. Failure to meet these conditions implies the automatic invalidation of the guarantee. DIRMAK, in its continual search to improve its products, reserves the right to make amendments without prior notice.

## **13 Compliance with Regulations**

The machine has been designed and manufactured in compliance with:

2014/30/EU

2014/35/EU

2006/42/EC

EN ISO 12100: 2010

EN ISO 13854:2019

EN ISO 13857: 2019

EN 60204-1:2018

EN ISO 14120: 2015

EN 1672-2:2020

EN 454:2014

REGULATION (EC) No 1935/2004

- European Standards:

EN 454 Beater Mixers. Safety and hygiene regulations.

**This compliance is certified by:**

- The CE compliance mark attached to the machine.
- The relative CE compliance declaration associated with the warranty,
- This instruction manual, which must be given to the operator.

**Protection indices as per the EN 60529-2000 standard:**

- IP54 electrical controls.
- IP32 overall machine.

**Integral safety:**

- The machine has been designed and manufactured in compliance with the relevant regulations and standards referred to above.
- Before using the machine, the operator must be trained in its use and informed of any possible residual risks.

**Food hygiene:**

The machine is made from materials that comply with the following regulations and standards:

- Standard EN 60204-1: cast aluminum alloy objects in contact with foodstuffs.

The surfaces of the food area are smooth and easy to clean. Use detergents that are approved for food hygiene and observe the instructions for their use.

## 14 Electrical Scheme

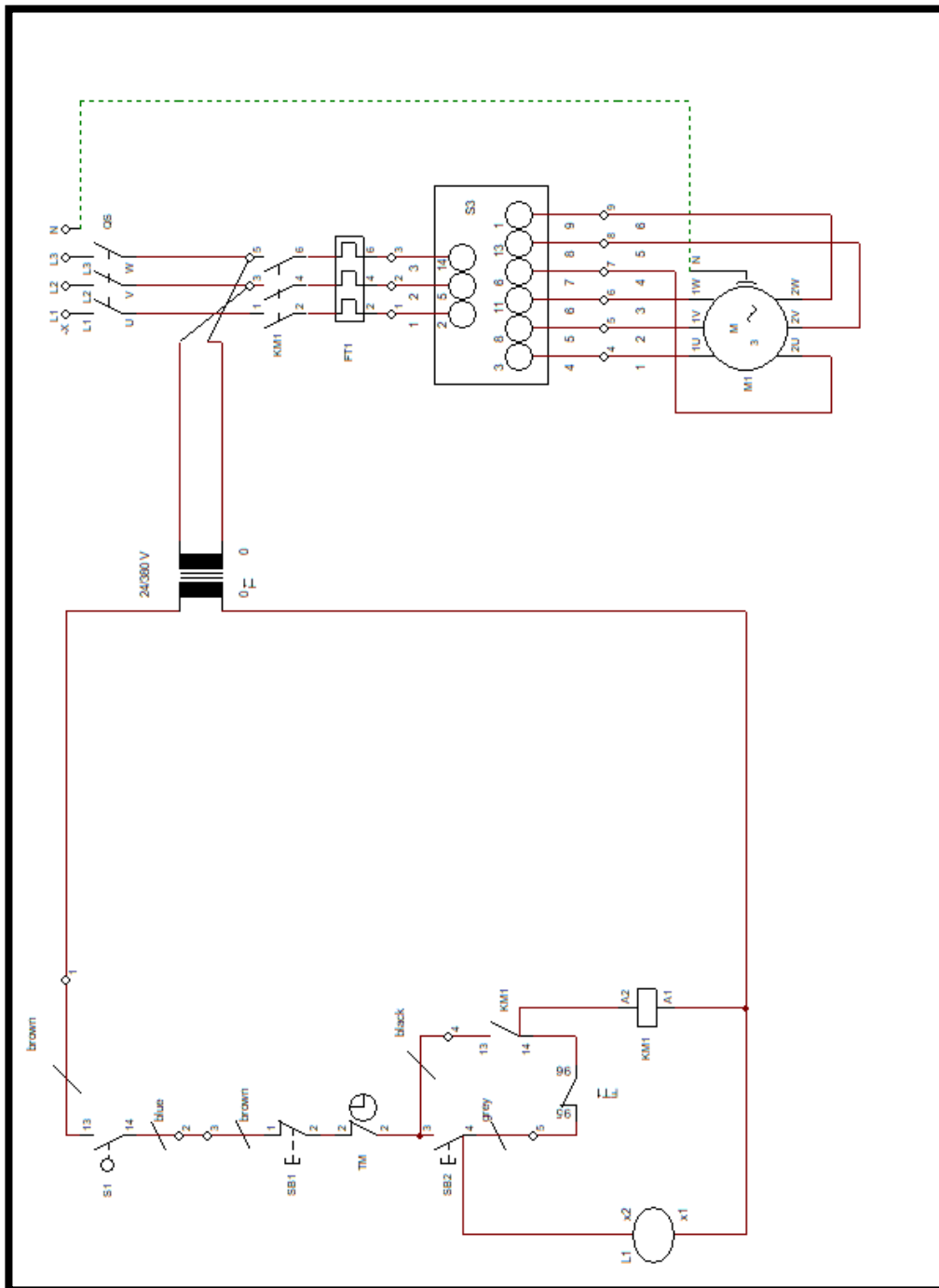
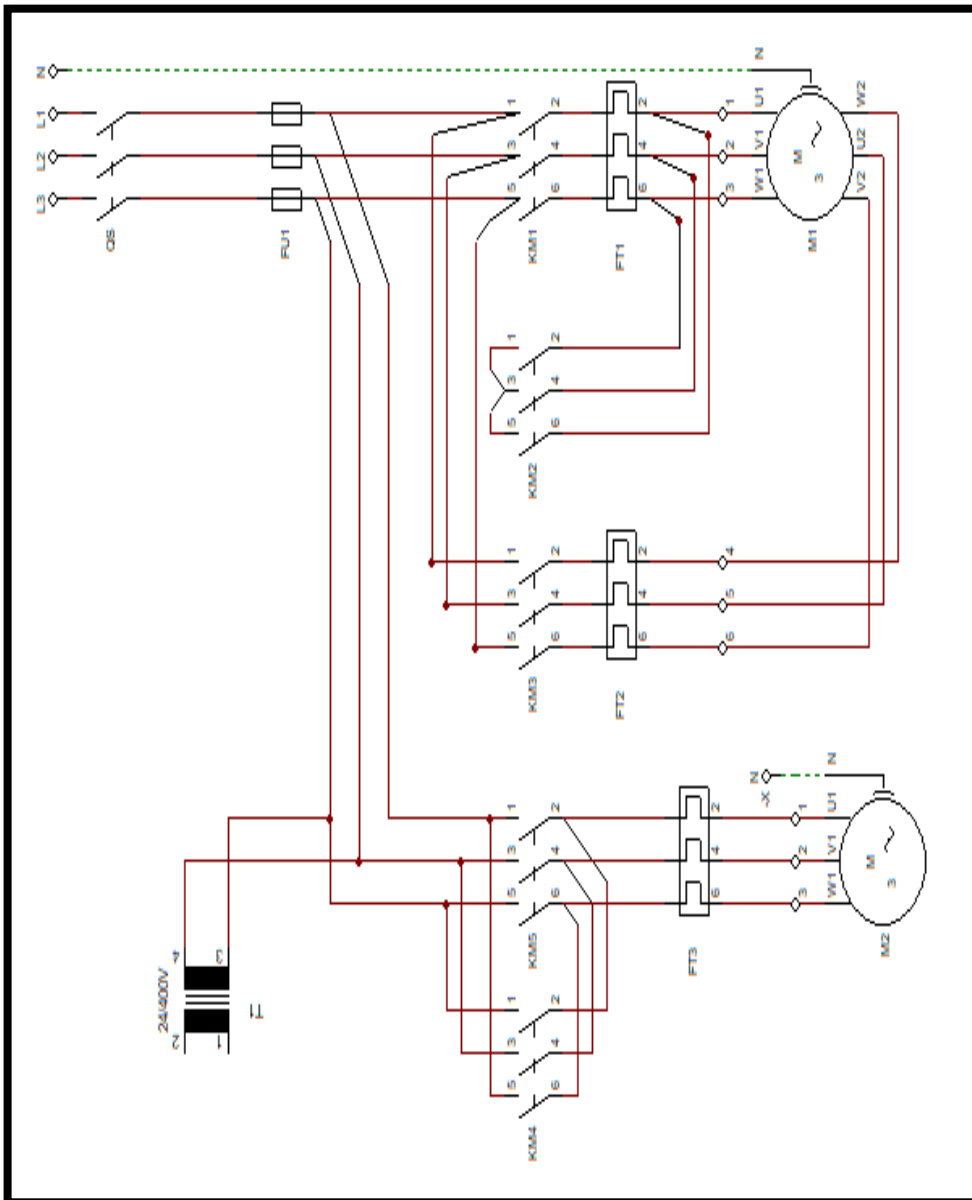
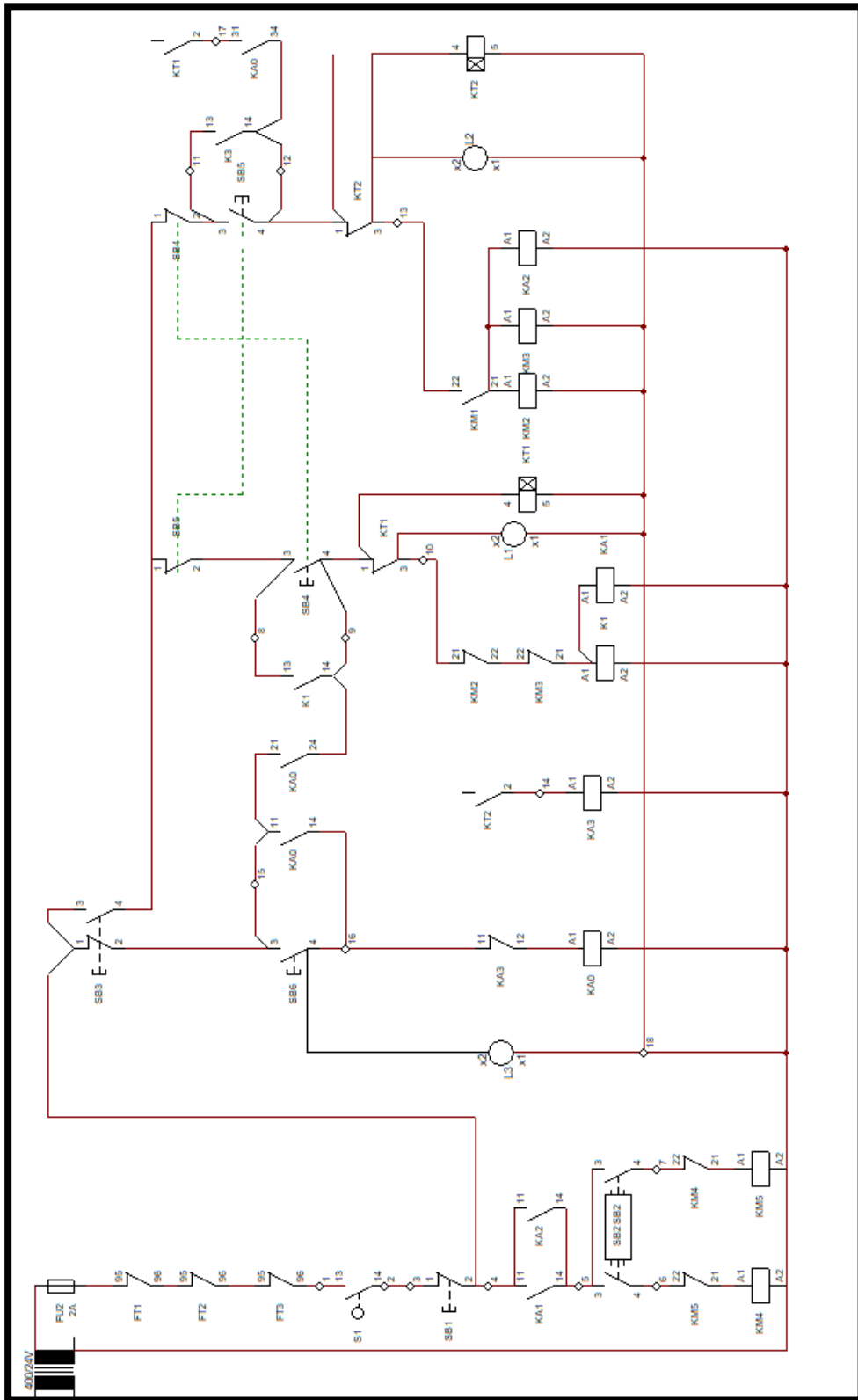


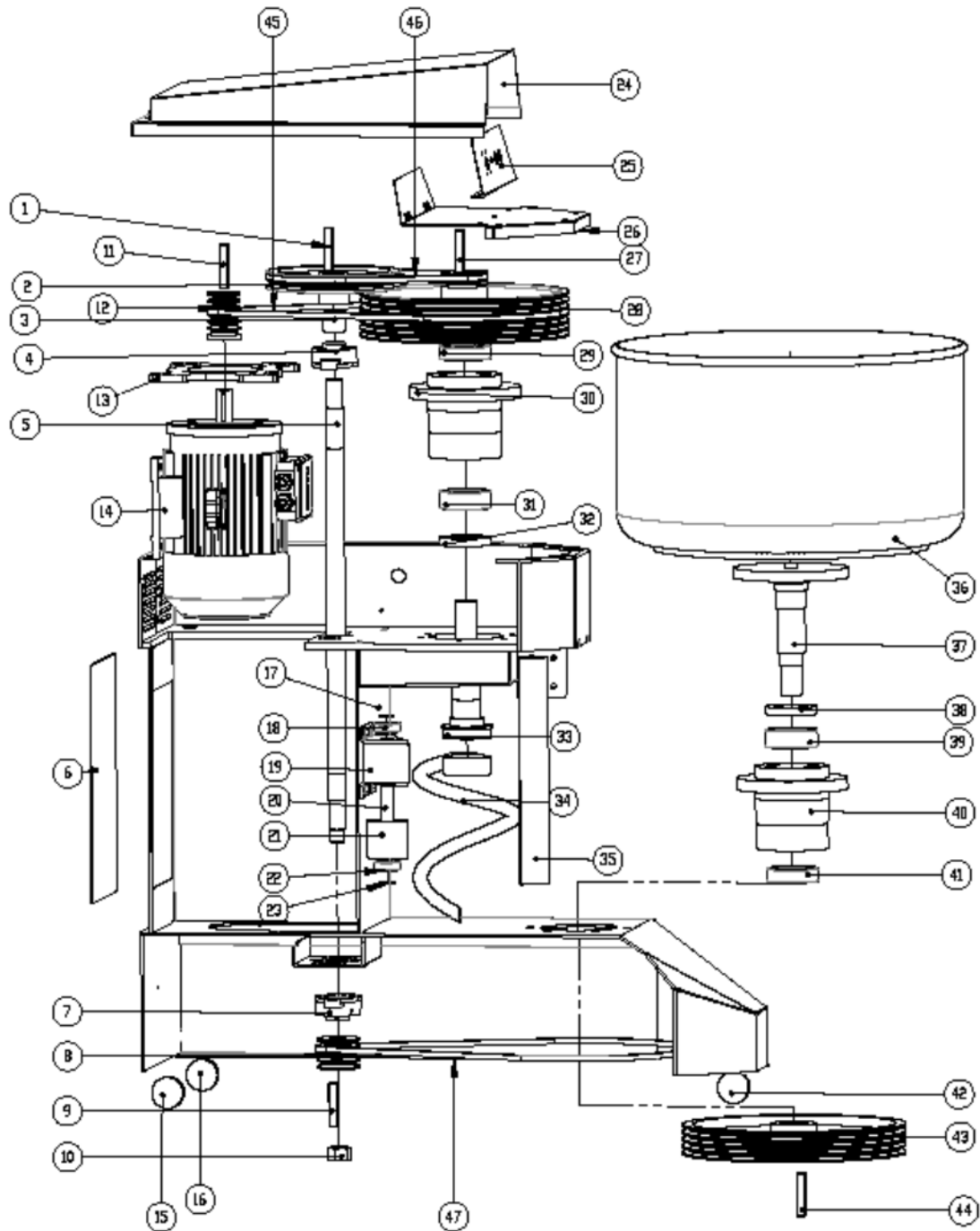
Figure 1 – ISM SERIES WITH ONE MOTOR



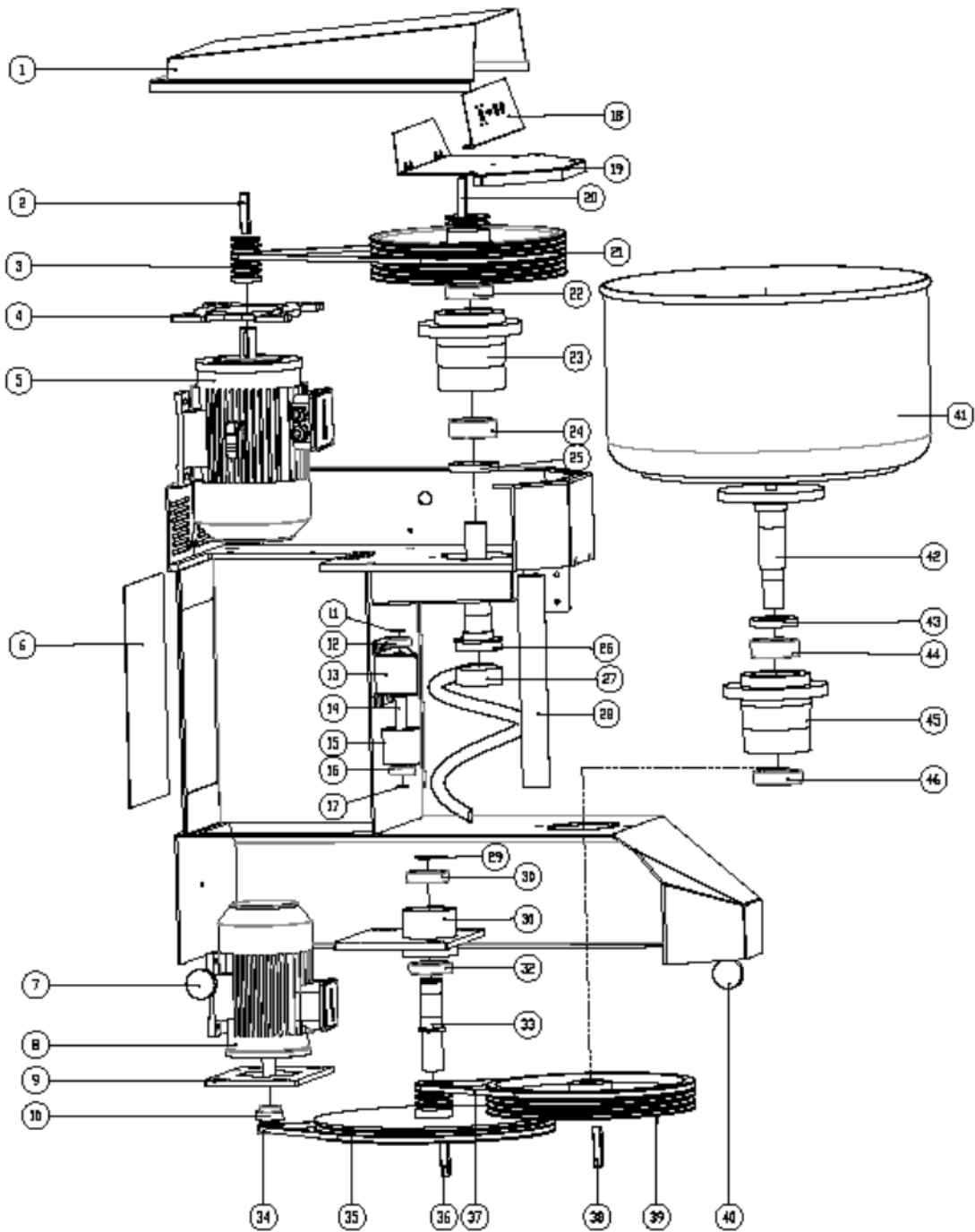




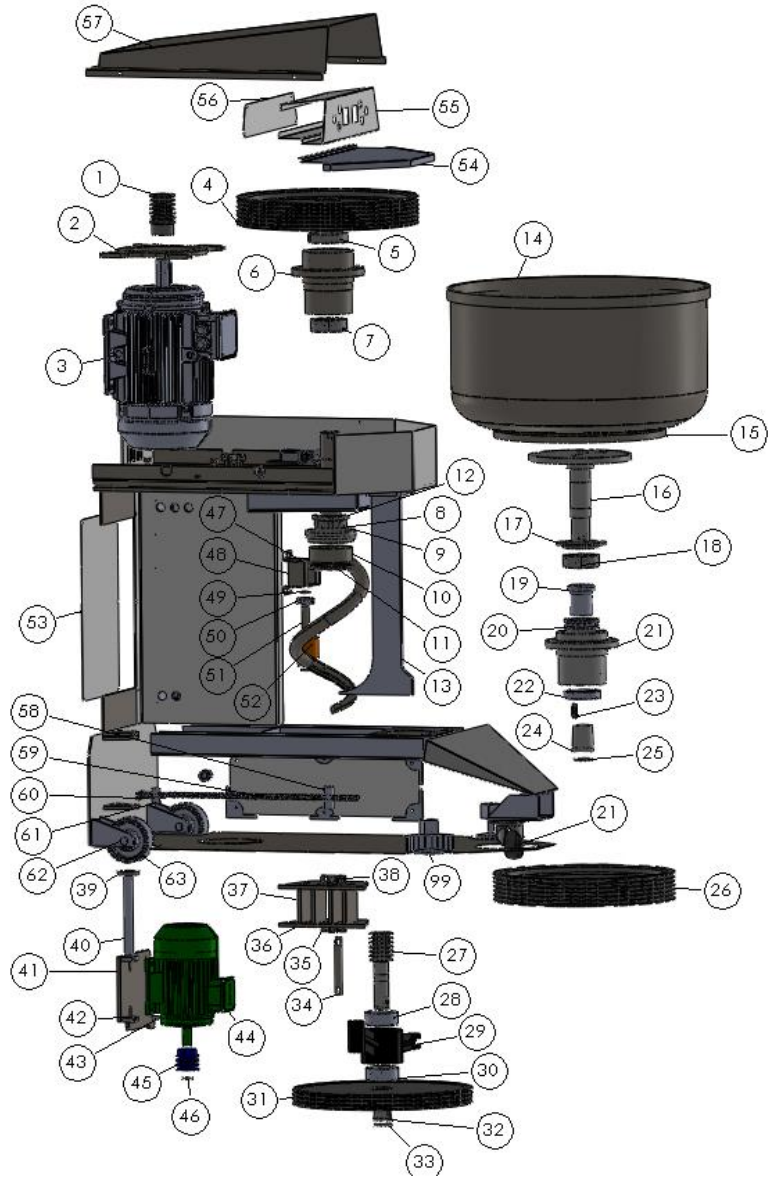
## 15 Spare Part list



PART NO	ISM 60-32 // ISM 75-32 // ISM 100-32 SPARE PART	ISM 60-32 SPARE PART NO	ISM 75-32 SPARE PART NO	ISM 100-32 SPARE PART NO
01	Wedge	ISM6006001	ISM7506001	ISM10006001
02	Pulley	ISM6006002	ISM7506002	ISM10006002
03	Bushing	ISM6006003	ISM7506003	ISM10006003
04	Bearing	ISM6006004	ISM7506004	ISM10006004
05	Transfer Shaft	ISM6006005	ISM7506005	ISM10006005
06	Back Cover Plate	ISM6006006	ISM7506006	ISM10006006
07	Bearing	ISM6006007	ISM7506007	ISM10006007
08	Gear	ISM6006008	ISM7506008	ISM10006008
09	Wedge	ISM6006009	ISM7506009	ISM10006009
10	Nut	ISM6006010	ISM7506010	ISM10006010
11	Wedge	ISM6006011	ISM7506011	ISM10006011
12	Motor Pulley	ISM6006012	ISM7506012	ISM10006012
13	Motor Flange	ISM6006013	ISM7506013	ISM10006013
14	Motor	ISM6006014	ISM7506014	ISM10006014
15	Wheel	ISM6006015	ISM7506015	ISM10006015
16	Wheel	ISM6006016	ISM7506016	ISM10006016
17	Circlip	ISM6006017	ISM7506017	ISM10006017
18	Bearing	ISM6006018	ISM7506018	ISM10006018
19	Support Wheel Plate	ISM6006019	ISM7506019	ISM10006019
20	Shaft	ISM6006020	ISM7506020	ISM10006020
21	Support Wheel	ISM6006021	ISM7506021	ISM10006021
22	Bearing	ISM6006022	ISM7506022	ISM10006022
23	Circlip	ISM6006023	ISM7506023	ISM10006023
24	Up Cover Plate	ISM6006024	ISM7506024	ISM10006024
25	Panel Plate	ISM6006025	ISM7506025	ISM10006025
26	Up Plate	ISM6006026	ISM7506026	ISM10006026
27	Wedge	ISM6006027	ISM7506027	ISM10006027
28	Pulley	ISM6006028	ISM7506028	ISM10006028
29	Bearing	ISM6006029	ISM7506029	ISM10006029
30	Spiral Bearing	ISM6006030	ISM7506030	ISM10006030
31	Bearing	ISM6006031	ISM7506031	ISM10006031
32	Sealing Element	ISM6006032	ISM7506032	ISM10006032
33	Bearing	ISM6006033	ISM7506033	ISM10006033
34	Spiral Mixing Tool	ISM6006034	ISM7506034	ISM10006034
35	Breaker	ISM6006035	ISM7506035	ISM10006035
36	Bowl	ISM6006036	ISM7506036	ISM10006036
37	Bowl Shaft	ISM6006037	ISM7506037	ISM10006037
38	Sealing Element	ISM6006038	ISM7506038	ISM10006038
39	Bearing	ISM6006039	ISM7506039	ISM10006039
40	Bowl Bearing	ISM6006040	ISM7506040	ISM10006040
41	Bearing	ISM6006041	ISM7506041	ISM10006041
42	Wheel	ISM6006042	ISM7506042	ISM10006042
43	Gear	ISM6006043	ISM7506043	ISM10006043
44	Wedge	ISM6006044	ISM7506044	ISM10006044
45	Belt	ISM6006045	ISM7506045	ISM10006045
46	Belt	ISM6006046	ISM7506046	ISM10006046
47	Chain	ISM6006047	ISM7506047	ISM10006047
48	Safety Guard	ISM6006048	ISM7506048	ISM10006048



PART NO	ISM 60-32S // ISM 75-32S SPARE PARTS NAME	ISM 75-32S SPARE PART NO	ISM 60-32S SPARE PART NO
01	Up Cover Plate	ISM7505001	ISM6005001
02	Wedge	ISM7505002	ISM6005002
03	Motor Pulley	ISM7505003	ISM6005003
04	Motor Flange	ISM7505004	ISM6005004
05	Spiral Mixing Tool Motor	ISM7505005	ISM6005005
06	Back Cover Plate	ISM7505006	ISM6005006
07	Wheel	ISM7505007	ISM6005007
08	Bowl Motor	ISM7505008	ISM6005008
09	Motor Flange	ISM7505009	ISM6005009
10	Motor Pulley	ISM7505010	ISM6005010
11	Circlip	ISM7505011	ISM6005011
12	Bearing	ISM7505012	ISM6005012
13	Support Wheel Plate	ISM7505013	ISM6005013
14	Shaft	ISM7505014	ISM6005014
15	Support Wheel	ISM7505015	ISM6005015
16	Bearing	ISM7505016	ISM6005016
17	Circlip	ISM7505017	ISM6005017
18	Panel Plate	ISM7505018	ISM6005018
19	Up Panel Plate	ISM7505019	ISM6005019
20	Wedge	ISM7505020	ISM6005020
21	Pulley	ISM7505021	ISM6005021
22	Bearing	ISM7505022	ISM6005022
23	Spiral Mixing Tool Bearing	ISM7505023	ISM6005023
24	Bearing	ISM7505024	ISM6005024
25	Sealing Element	ISM7505025	ISM6005025
26	Spiral Mixing Tool Shaft	ISM7505026	ISM6005026
27	Spiral Mixing Tool	ISM7505027	ISM6005027
28	Breaker	ISM7505028	ISM6005028
29	Circlip	ISM7505029	ISM6005029
30	Bearing	ISM7505030	ISM6005030
31	Shaft Car	ISM7505031	ISM6005031
32	Bearing	ISM7505032	ISM6005032
33	Bearing	ISM7505033	ISM6005033
34	Belt	ISM7505034	ISM6005034
35	Pulley	ISM7505035	ISM6005035
36	Wedge	ISM7505036	ISM6005036
37	Belt	ISM7505037	ISM6005037
38	Wedge	ISM7505038	ISM6005038
39	Pulley	ISM7505039	ISM6005039
40	Wheel	ISM7505040	ISM6005040
41	Bowl	ISM7505041	ISM6005041
42	Bowl Shaft	ISM7505042	ISM6005042
43	Sealing Element	ISM7505043	ISM6005043
44	Bearing	ISM7505044	ISM6005044
45	Bowl Bearing	ISM7505045	ISM6005045
46	Bearing	ISM7505046	ISM6005046
47	Safety Guard	ISM7505047	ISM6005047



PART NO	ISM 100-32S SPARE PARTS NAME	SPARE PART NO
01	Motor Pulley	ISM10005001
02	Motor Flange	ISM10005002
03	Spiral Mixing Tool Motor	ISM10005003
04	Gear	ISM10005004
05	Bearing	ISM10005005
06	Spiral Mixing Tool Bearing	ISM10005006
07	Bearing	ISM10005007
08	Spiral Mixing Tool Shaft	ISM10005008
09	Cap	ISM10005009
10	Bearing	ISM10005010
11	Spiral Cap	ISM10005011
12	Seal	ISM10005012
13	Breaker	ISM10005013
14	Bowl	ISM10005014
15	Bowl Flange	ISM10005015
16	Bowl Shaft	ISM10005016
17	Sealing Element	ISM10005017
18	Bearing	ISM10005018
19	Ring	ISM10005019
20	Bearing	ISM10005020
21	Bowl Bearing	ISM10005021
21/2	Wheel	ISM10005022
22	Bearing	ISM10005023
23	Wedge	ISM10005024
24	Withdrawal Sleeve	ISM10005025
25	Lock Flange	ISM10005026
26	Gear	ISM10005027
27	Motor Pulley	ISM10005028
28	Bearing	ISM10005029
29	Transfer Bearing	ISM10005030
30	Bearing	ISM10005031
31	Pulley	ISM10005032
32	Withdrawal Sleeve	ISM10005033
33	Lock Flange	ISM10005034
34	Shaft	ISM10005035
35	Support Beams	ISM10005036
36	Support Beams	ISM10005037
37	Support Beams	ISM10005038
38	Support Beams	ISM10005039
39	Flange	ISM10005040
40	Shaft	ISM10005041
41	Motor Flange	ISM10005042
42	Support Beams	ISM10005043
43	Support Beams	ISM10005044
44	Bowl Motor	ISM10005045
45	Motor Pulley	ISM10005046
46	Lock Flange	ISM10005047
47	Bowl support sheet metal	ISM10005048
48	Bowl support sheet metal	ISM10005049
49	Ring	ISM10005050
50	Bearing	ISM10005051
51	Shaft	ISM10005052
52	Support Wheel	ISM10005053
53	Back Cover Plate	ISM10005054
54	Upper Cover	ISM10005055
55	Panel Plate	ISM10005056
56	Panel Plate Cover	ISM10005057
57	Up Cover Plate	ISM10005058
58	Breast Beam	ISM10005059
59	Threaded rod	ISM10005060
60	Threaded rod	ISM10005061
61	Breast Beam	ISM10005062
62	Shaft	ISM10005063

