MIXER

USE AND MAINTENANCE MANUAL

PLANETARY MIXER

MR

MOD.
150 – 280 - 400 - 600

MIXER s.r.l. Via Dell'Industria, 2/4 – 36047 Montegalda (VI) – Italy
Tel. 0444 737020 – Fax 0444 636499 e-mail: info@mixerit.com

USE AND MAINTENANCE MANUAL MIXERS FOR MR 150-280-400-600 MODELS

INDEX

1.0 INSTRUCTIONS - PRECAUTIONS - GENERAL NOTICE 5
1.1 Safety....5
1.1.1 Safety pictograms and symbols used in the present manual....6
1.1.2 Safety rules....7
1.1.3 Placing of safety pictograms....7
1.2 Risk analysis....7
2.0 PREAMBLE 8
2.1 Machine identification data 8
3.0 INTRODUCTION 8
4.0 TERMINOLOGY 9
4.1. PRECAUTIONS....10
4.2 EMERGENCY....11
4.3 Destination of use 11
4.4 Limits of use....11
5.0 INSTRUCTIONS FOR TRANSPORT 12
5.1 Packaging 12
5.2 Handling , loading and unloading....12
5.3 Weight and measure table....14
5.4 Unpacking....14
5.5 Internal handling 14
6.0 INSTALLATION 15
6.1 PREVENTIVE CHECKS....15
6.2 General rules 16
6.3 Optimal environmental conditions 16
6.4 Compressed air connection 16
6.5.1 Lighting 18
6.6 Electrical connection 18
7.0 MACHINE CHARACTERISTICS....18
7.1. DESCRIPTION OF MACHINE FUNCTION 18
7.2 MOVEABLE AND FIXED GUARDS....18
7.3 ELECTRICAL APPLIANCE BOX....19
7.4 NOISE EMITTED BY THE MACHINE....19
7.5 VIBRATIONS....19
7.6. VENTILATION FOR THE MACHINE 19
7.7 DESCRIPTION OF FUNCTION....21
7.8 HEATING THE BOWL 22
7.9 LOAD WATER FUNCTION....22
7.10 BASE FUNCTIONS 22
7.11 MANUAL UPWARD AND DOWNWARD MOVEMENT OF THE BOWL 22
7.12 CYCLE....23
7.13 ALARMS INDICATING OVERLOAD....23
8.0 COMPOSITION OF MACHINE....23
9.0 TECHNICAL DATA....24
10.0 DIRECTIONS FOR USE....25
10.1 General notice....25
10.1.1 Power cut....25
10.1.2 Restart after the emergency stop 25

10.2 Loading the machine 25
11.0 ROUTINE MAINTENANCE 26
11.1 Machine washing 26
11.2 Maintenance and cleaning interventions frequency 26
11.3 Mechanical maintenance 28
11.4 Electrical maintenance 28
12.0 INTERVENTIONS TO SOLVE TECHNICAL PROBLEMS 28
12.1 RECOMMENDATIONS 28
12.2 FUSES 28
12.3 OVERLOAD MOTOR PROTECTIONS 28
12.4 MICRO SWITCHES 28
12.5 MICRO SWITCHES FOR BOWL PRESENCE 28
12.6 OIL 29
12.7 SCRAPERS 29
12.8 LIFTER GEARMOTOR 29
12.9 SEALS 29
13.0 LONG TERM LAYING ASIDE 29
14.0 OUT OF SERVICE AND SCRAPPING 29
15.0 SERVICING AND MAINTENANCE INTERVENTIONS 30

CE DECLARATION OF CONFORMITY

Montegalda , 01/01/2010

Models: MR 150 – 280 - 400

The company **MIXER S.r.l.** via dell'industria, 2/4 – 36047 Montegalda – Vicenza,

declares on its own responsability that a.m. goods, object of the present declaration, is in compliance with the following Directives :

2006/42/CE (Machines Directive)

2004/108/CEE (Electromagnetic Compatibility)

2006/95/CE (Low tension)

1935/2004 (CE Regulation, Material and objects in contact with foodstuff)

The person authorised to compile the technical file is : Andriolo Fabio

MIXER S.r.l.
Michelazzo Paolo
Sole director

1.0 INSTRUCTIONS - PRECAUTIONS - GENERAL NOTICE

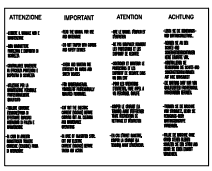
It is up to the buyer -after looking over the present manual - to inform whoever coming in direct or indirect contact with the machine about the instructions content in order to work in safety conditions. The manufacturer declines all responsibility for any damage to people or things caused by the non-observance of the safety instructions contained in this manual or indicated on the machine.

1.1 Safety

The machine is destined for a professional use only. The operator is to be fit for using middle-complex machines and in a position to read and understand the instructions contained in this manual .
The machine is to be installed in a suitable room, the features of which are specific and usual for a food laboratory, where special sanitary and environmental conditions are required.
Before starting any operation, it is necessary for the user to read carefully and understand the content of this manual. The non-observance or the negligence of the safety rules shall be the origin of even heavy accidents or anomalous machine operating with potential consequences of accidents in using it or during the maintenance. For any further doubts or explications you may require , kindly get in touch with the Manufacturer who shall be at your disposal and will be pleased to assist you.
We remind you that you are not allowed to carry out any change to the machine or any maintenance not being described in this manual or whatever not authorized - in an official form - by the Manufacturer. Should the machine be started in an incorrect manner, it shall be whatever operating and reveal dangerous non-conformities later only.
The Manufacturer is not responsible for any damage to people and/or things occurred owing to the carelessness in reading the manual or putting into practice the content of the present manual.

1.1.1 Safety pictograms and symbols used in the present manual

You are kindly requested to take the greatest care in taking into consideration all danger, caution and warning signs shown in this manual and on the machine. In order to draw your attention on the manual content and on the machine, the main pictograms and the symbols used are shown here below just for your information.

	General potential danger to people. Risk of accident;
	Danger of present tension;
	Danger of mechanical gears in motion;
	Danger of possible crushing;
CAUTELA	Caution. Handle with care;
	Do not move the safety device;
	Do not smoke or light free flames;
	Warning: Safety directions;

1.1.2 Safety rules

Before carrying out any maintenance or cleaning interventions, remove the plug from the socket:

- do not alter the safety device;
- do not put any objects on the machine;
- do not introduce any different things into the bowl from the ingredients to be mixed;
- Inspection periodically and keep all machine parts efficient, particularly the safety device

The tool working area is protected by a stainless steel protection grid.
All transmission gears are contained in the machine structure and are accessible through carters and panels fixed by means of screws The machine is arranged for grounding. The power and control electric circuit is equipped with protection device against short circuits and overloading.
On the control panel there is a stop-emergency button stopping immediately the machine when being pushed. The machine re-set, occurring by pulling the push-button cap, does not cause the automatic re-starting.

1.1.3 Placing of safety pictograms

	Should the pictograms signs be damaged or illegible, kindly ask the Manufacturer for their replacement and re-place them as per scheme suggested.

1.2 Risk analysis

An assessment of the risks which may occur during use and maintenance has been made for the machine described in this manual. All necessary interventions for the machine have been carried out in order to make the machine reliable and up to the safety rules in compliance with the applicable regulations. The remaining risks have been mentioned in this manual and shown on the machine through the pictograms concerned.

2.0 PREAMBLE

The present material forms an integral part of the product, it shall be kept near the machine for an easy and prompt consulting; it is also to be preserved in the future until the final elimination of the machine. The Manufacturer does not answer for the legal-technical reliability of the installation room and the machine bearing means, even if all instructions for a correct machine installation are given in the section concerned of this manual. With regard to this aspect, the user is kindly requested to ask for the consultation of a professional and skilled technician even for the observance of any eventual laws or local regulations.

2.1 Machine identification data

The machine is regularly equipped with a manufacturer rating plate showing the CE mark as per the facsimile mentioned here below :

3.0 INTRODUCTION

The text of this manual is divided into subjects. In order to make the comprehension easier, we point out - herewith - the principle assumed for the classification of the different parts making up this manual on the basis of the progressive numeration used.

Section 1.0
Chapter 1.1
Paragraph 1.1.1

4.0 TERMINOLOGY

Fig. 0 indicates the main parts of the Mixer MR.

1	Openings for airing
2	Mixer
3	Bowl
4	Stainless steel cover
5	Scraper
6	Tap

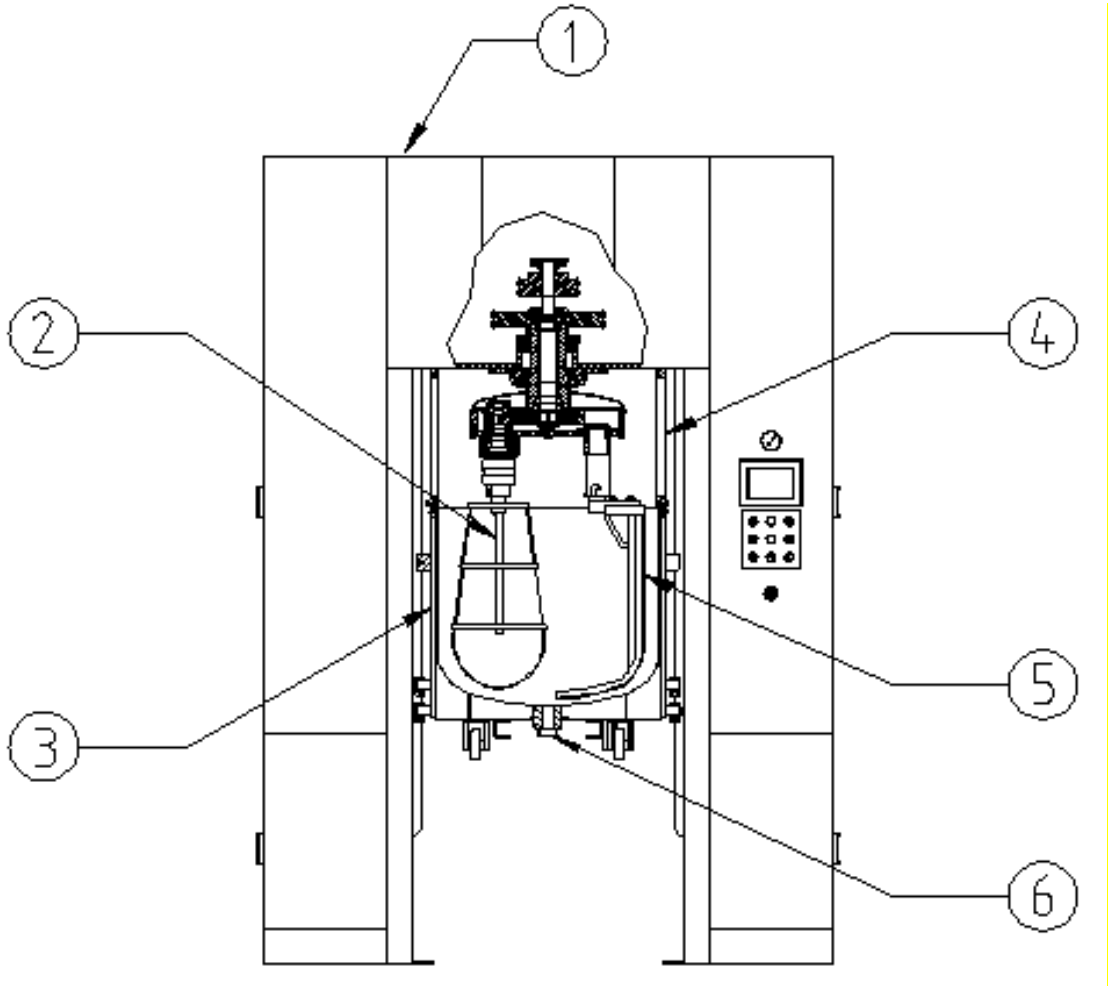
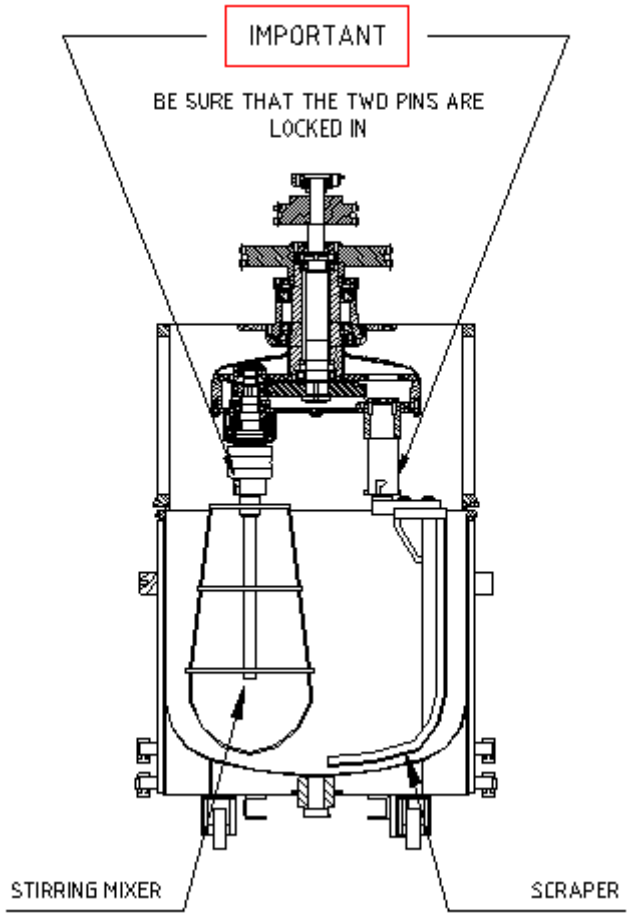


fig. 0

4.1. PRECAUTIONS

Users are recommended to observe the following indications provided by the manufacturer:

- do not remove or neutralise the safety guard
- check that mixer and scraper are inserted into the socket and firmly fixed into position as indicated in fig. 2.1.
- during use, all guards must be in the position indicated by the manufacturer.
- the electrical appliance case must be kept closed at all times except for during maintenance and repair of the electrical appliance.
- before all cleaning and maintenance operations make sure that the machine has been disconnected from the electricity supply to prevent any accidental start-up of the machine.
- if the machine is not used for a certain period, remove the plug from the socket.



4.2 EMERGENCY

In the event that the operator should find himself in danger, stop the machine immediately in one of the following ways:
- press the stop button
- turn the general switch to 0
- remove the plug from the socket.

4.3 Destination of use

The planetary mixer is exclusively used for flour, water, salt, sugar, fat, oil and similar ingredients dough according to the parameters shown in this manual.

This planetary mixer shall be destined for the use only, for which it has been expressly conceived. Any further use is to be considered improper and unreasonable.

The manufacturer is not to be considered responsible for any eventual damage caused by an improper, wrong and unreasonable use, as for ex.:

- improper use by non-trained personnel;
- non-authorized changes or interventions;
- use of non-original or not model-specific spare parts;
- non-observance of the instructions.

4.4 Limits of use

There are no particular limitations of the machine in its destination of use.
No training is required for use of the machine, though operators must have suitable professional training and qualifications.
We strongly advise against the use of part-time or temporary personnel who do not have the necessary requirements for using the machine.

The mixer is to be used by an over 14 years aged skilled and professionally qualified person only.

5.0 INSTRUCTIONS FOR TRANSPORT

The machine is to be handled with the greatest care for transport. The parameters shown on the packaging are strictly to be taken into consideration.
Do not sling the machine through metallic bands.
Avoid any machine collision during handling as this could damage the machine and compromise its correct operating.
Read the par. no. 5.1 and 5.4 referred to the packaging and the handling of a machine placed on a pallet carefully.

5.1 Packaging

The machine is normally packed after placing it on a pallet and fixing it properly on the same by means of bolts. Afterwards the machine is wrapped up by using a thermoretractile material of highly mechanical resistance. The thermoretractile material is fixed on the machine ground, i.e. on the pallet wood through wooden strips fixed on by rivets. The following hot-treatment keeps the wrapping up adherent and safe and protects against any possible external agents during handling and storage.

5.2 Handling , loading and unloading

The packed machine loading and unloading from the mean of transport shall be carried out by :

- a crane
- a service-lift

The transport is to be carried out carefully taking all necessary precautions in order to avoid any damage to the machine. Consequently the machine has not to be placed upon other materials and no other materials can be placed upon the machine. This is valid either for transport and storage. During the transport the machine has not to be placed in condition to suffer any possible collision caused by other goods carried. The machine is to be fixed firmly in order to avoid any possible falls which shall cause a damage to the machine same and eventually to people in its vicinity. Before unloading the machine from the mean of transport, the package is needed to be checked in order to verify its integrity and that it does not represent a danger of turning over. A careful caution is recommended in placing the machine on the floor while unloading, in order to avoid any dangerous impacts which could damage it. Handling is always to be carried out according to the directions mentioned on the packaging and the weight expressed in kilograms on the same.

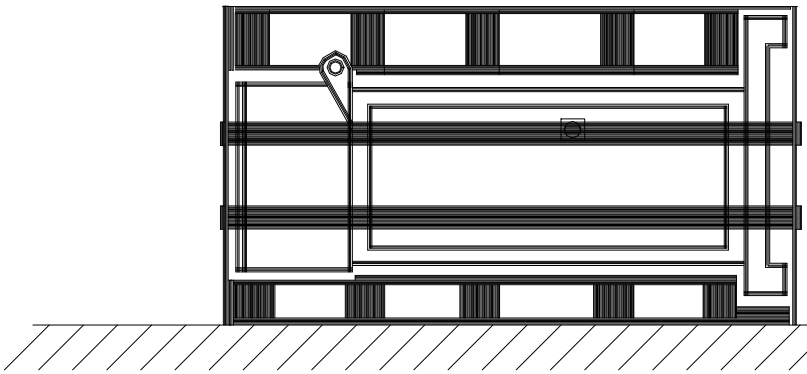


fig. 1.1

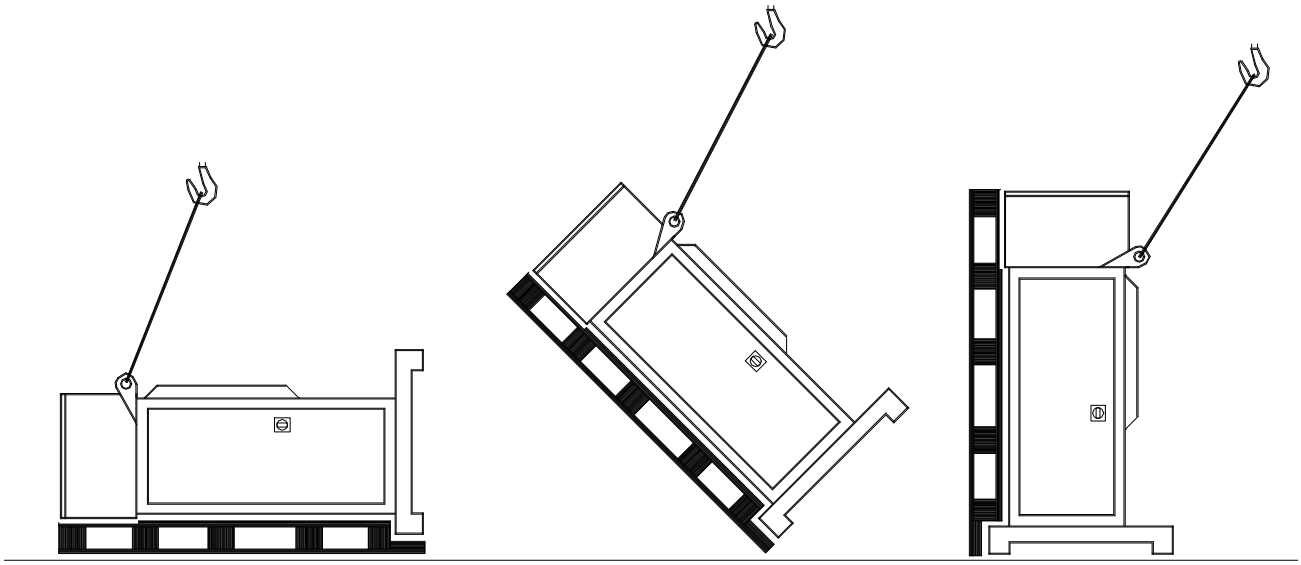


fig. 1.2

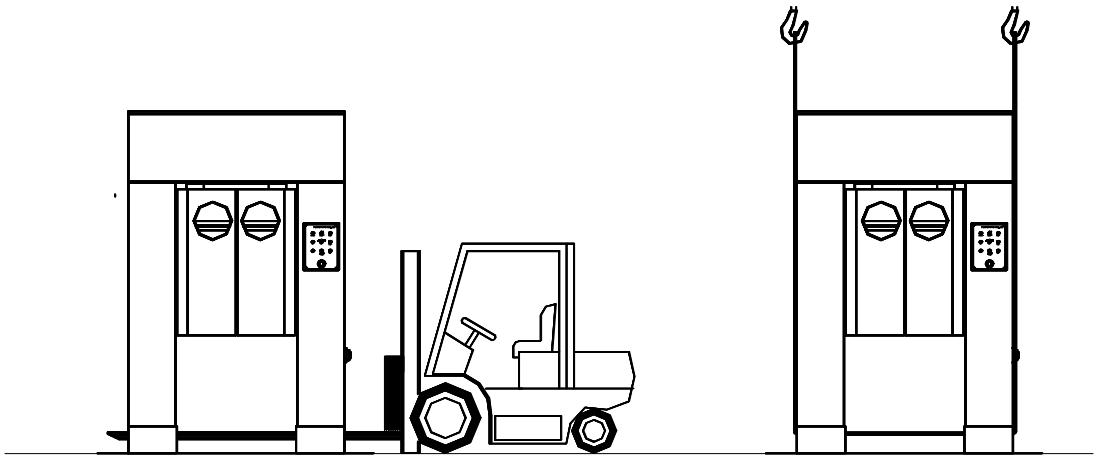


fig. 1.3

5.3 Weight and measures table

Model	Weight in Kg	Dimensions
MR150	1300	1350x1700x2300
MR280	2300	1500x2050x2900
MR400	4000	1750x2250x3500
MR600	5500	2300x3950x1900

5.4 Unpacking

After unpacking the machine, make sure of its integrity and do not use the machine in case of evident non-conformities.
Even if there are no particular restrictive conditions for unpacking, the following directions are recommended :

- do not carry out any lifting-handling if the means are not perfectly being maintained and not in a position to support the weight declared;
- do not let the machine pass and/or do not stop it over people or things during handling while lifting;
- check the directions for use mentioned on the packaging and follow them consequently;
- place the machine upon a flat ground and not rough in order to place it on a support free from any roughness.

	Do not leave any packaging material unguarded. Eliminate it according the laws in effect. Any packing plastic-sheets, bags, rivets, wood and other materials can be extremely dangerous for children.

5.5 Internal handling

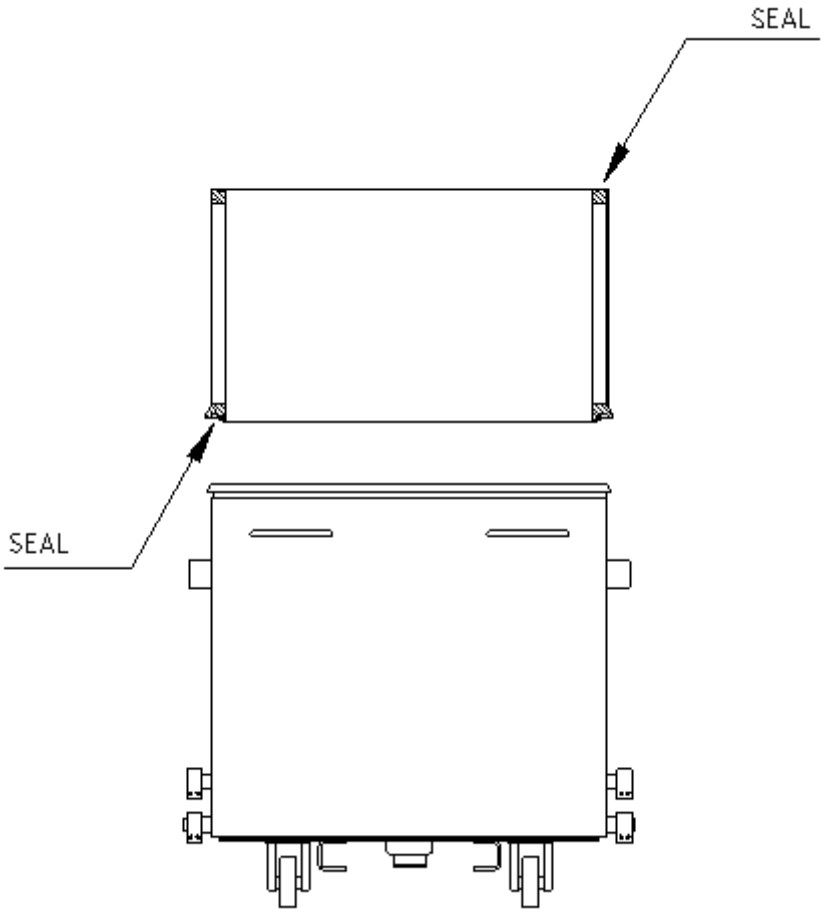
During the machine lifetime, carry out the following operations if an internal displacement of it is needed .
Release the machine from any eventual fasteners to the ground.
Move any eventual objects in the vicinity of the machine.
Lift the machine by means of a tackle or similar system equipped with sufficient power features for the operation to be carried out. Use lifting belts up to the rules and suitable for the product being moved. Move in avoiding to pass, with the loading, over people standing on the same machine way.

6.0 INSTALLATION

The machine is to be placed upon - while installing it - according to the instructions given herewith. These instructions represent the optimum conditions for a correct placing of the same in respecting the functional and safety measures for the operator.

6.1 PREVENTIVE CHECKS

Always make sure the seals, fig. 5.1, are in good condition.
Check that the electricity supply appliance corresponds to standards in force.
Check that the bowl has been inserted into the guides provided so that the sensors can permit movement (which takes place when the moveable guard has been closed).



Make sure that the phases on the electricity line are positioned correctly otherwise the bowl will not move up or down.
Where presented with this problem, invert one of the phases.

6.2 General rules

The part number and the general date plate is situated on the right side of the machine.
The planetary mixer is to be installed in a room in compliance with the rules in force.
The opening for the room aeration and a suitable lighting are very important as reminded herewith.
The floor is to be perfectly flat and leveled, cemented or paved and suitable for supporting loads according to the specified safety margins. It is necessary for the electric connection to be arranged as mentioned here below. This connection is to be carried out by skilled staff only in possession of all specific, technical and professional qualifications, having entered his name on the professional roll concerned and in a position to take the complete responsibility of it.

6.3 Optimal environmental conditions

The MR Mixer must be installed in a suitable environment which conforms to hygiene standards in force:

- room temperature from + 5°C to + 40°C;
- relative humidity from 30 to 95 % (without condensation);
- no ionising or non-ionising radiation;
- non corrosive atmosphere.

Both natural and artificial lighting can be used for the machine and no internal lighting has been provided.

	The accidents may occur more frequently if the environment is narrow, badly ventilated of temperate. The lighting is to be in compliance with the rules to avoid any difficulties during the working operations.

6.4 Compressed air connection

This model has been supplied with a filter unit for air treatment. However, to prevent damage to the equipment and to permit optimal and long-term function, connect the machine to a supply system with the characteristics indicated in diagram fig. 5.2. Input pressure must be between 4 to 6 bar.

	ATTENTION! DO NOT GO OVER 0.5 BARS IN THE BOWL

KEY

1. DESCENT PIPE
2. CONDENSATION COLLECTOR
3. DISCHARGE TAP
4. AIR FILTER
5. DISCHARGE TAP
6. CONNECTION PIPE
7. PRESSURE REGULATOR

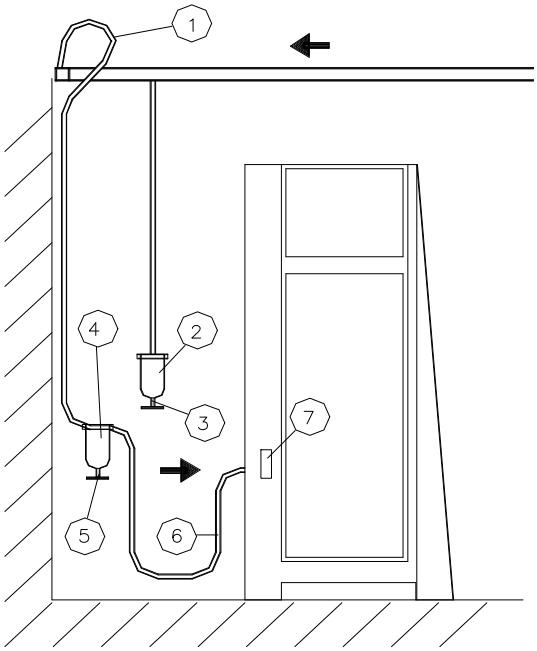


fig. 5.2

ATTENTION! DO NOT GO OVER 0.5 BARS IN THE BOWL

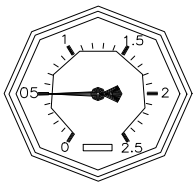


fig. 5.3

6.5.1 Lighting

It is necessary for the environment lighting to be arranged correctly according to the local rules provided for work and safety.

6.6 Electrical connection

The machine is equipped with an only electrical connection with a connection cable placed on the back of the machine. Check that the plate voltage corresponds to the one of the mains. Besides check that the available electrical power is more than the one required by the machine as shown on the part no. plate. The connection to the principal mains of the room is to be carried out through a manual control sectioning voltage device in order to allow the separation of the electrical equipment from the supply mains, when needed (For ex. during the cleaning and maintenance process). Such a device must be able to transmit the plate rated current and the connection cables of the principal mains and of external protection (protection equi-potential circuit) are to be according to the suitable section. The principal mains is to be originally equipped with a differential switch and a grounding of the laboratory.

7.0 MACHINE CHARACTERISTICS

7.1. DESCRIPTION OF MACHINE FUNCTION

The MR Mixer is used for mixing ingredients placed in the bowl with a beater and dough is removed continuously from the sides with Teflon scrapers.
Tables 3.1 and 3.2 indicate the technical data for the machine.

7.2 MOVEABLE AND FIXED GUARDS

The machine has been provided with a fixed guard (stainless steel cover) to prevent operators from accessing the work area.
It also forces the operator to place the bowl in its socket and lock it in with the blocks indicated by the manufacturer in fig. 3.1.
The moveable guard consists of two stainless steel doors with inspection windows to check that the bowl fits perfectly under the cover.
The machine will only function when the inspection windows are shut.
Neutralisation of these guards could endanger the safety of the operator, with all the ensuing consequences.

7.3 ELECTRICAL APPLIANCE BOX

Electrical panel and control panel are located inside and outside the electrical appliance box (fig.0) respectively.

The box protects operators from accidental contact with electrical parts and also protects the electrical parts from solid external bodies and water. The box can be opened using the key provided after the plug has been removed from the socket.
Degree of protection is indicated in Table 3.2.

7.4 NOISE EMITTED BY THE MACHINE

The noise emitted by the machine was measured with the machine running on empty at maximum speed.
Sound pressure was measured in accordance with the ISO 11201 standard, positioning the microphone of the measuring instrument at 1.6m from the surface on which the machine rested, at 1m in front of the machine.
Data collected was less than 70 dB.
In certain special cases, noise may seem louder, for example at night when surrounding areas are clearly quieter.
In these cases, sound insulation should be provided for the operating area.

7.5 VIBRATIONS

Limited.

7.6. VENTILATION FOR THE MACHINE

The upper part of the machine (fig. 3.4) has ventilation openings for correct aeration of the gear motor. These openings must not be obstructed at any time in order to prevent excessive overheating of the gear motor.

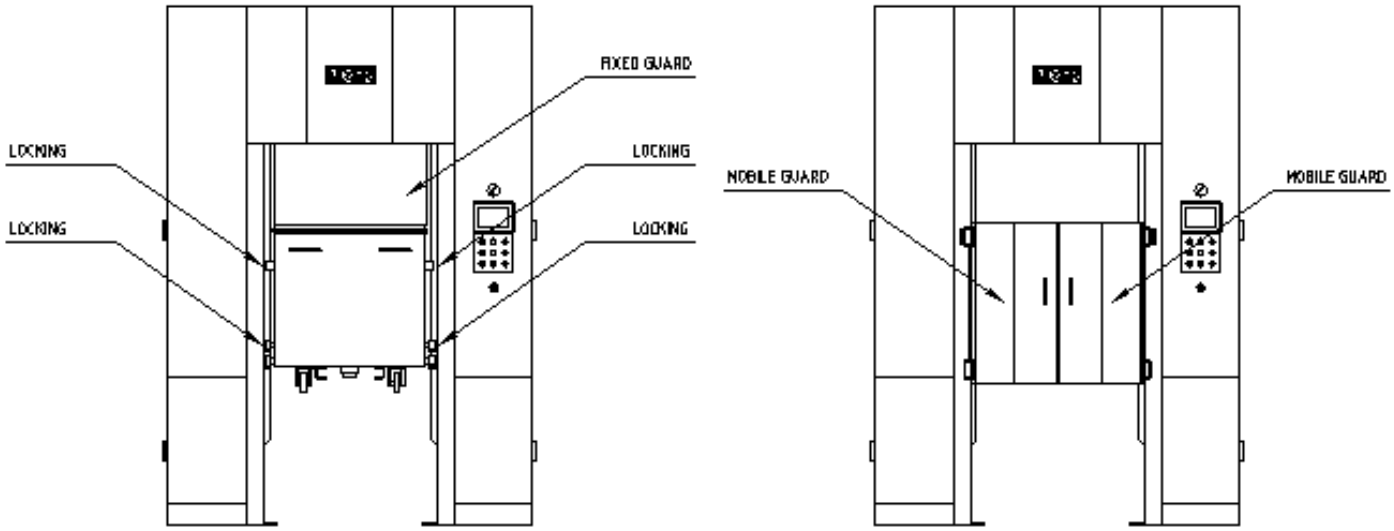
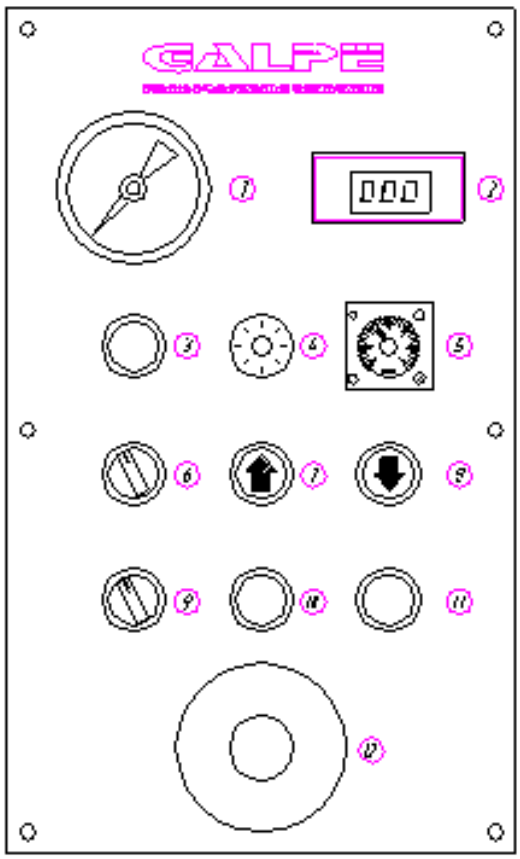


fig. 3.1



1) Manometer

2) Counts rpm

3) Auxiliary activation

4) Potentiometer

5) Timer

6) Sel Manual/Automatic

7) Up bowl

8) Down bowl

9) Air in

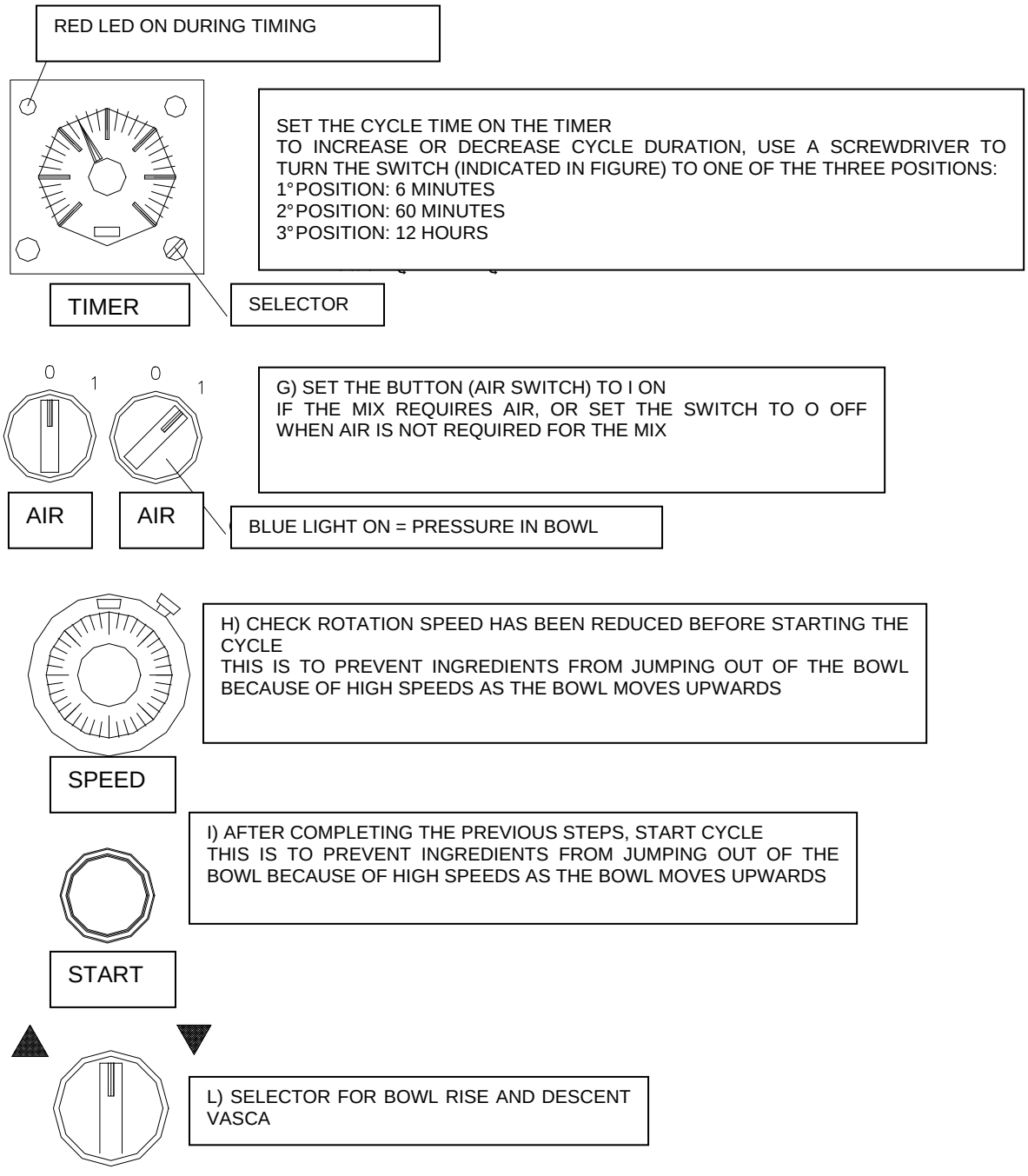
10) Start

11) Stop

12) Emergency/Stop

7.7 DESCRIPTION OF FUNCTION

A) Open protective doors (fig. 3.1 moveable guard)
B) Check that spatulas and scraper are solidly fixed to the supports
C) Place the bowl inside the bridge structure and slide along the guides
D) Push the bowl in until it presses against the micro switches (bowl presence)
E) Close the protective doors (fig. 3.1 moveable guard)



7.8 HEATING THE BOWL

Instructions for setting temperature:
- Slot in the connector and set the temperature on the thermostat (1).
- Press P, change the set point value with the up and down keys and the value will automatically be memorised after 10 seconds.
- Turn the heating on with the Heating switch (5) and temperature will be adjusted automatically according to the PID criteria handled by the thermostat (1).

7.9 LOAD WATER FUNCTION

- To set the amount of water required, press the selector buttons (3) bearing in mind that the value displayed is in litres x10.
- To zero the value on the litre counter displayed, press the reset button (9).
- Use the switch (6) to enable loading of water and if the bowl is in the raised position water will fill up to the amount set (white light on during filling).
  This function is active both in manual and in cycle phase. N.B. The bowl must always be in raised position and in its socket.

7.10 BASE FUNCTIONS

- With the electricity on (general switch on the panel at position 1), press the POWER button (13) to power the auxiliary circuits (white light on)
- If function fails, check the emergency buttons have been released (14).

7.11 MANUAL UPWARD AND DOWNWARD MOVEMENT OF THE BOWL

- Open the protective doors (fig. 3.1 moveable guard)
- Check that the spatulas and scraper are firmly fixed to the supports
- Place the bowl into the bridge structure and slide along the guides
- Push the bowl up against the micro switches (bowl presence)
- Close the protective doors (fig. 3.1 moveable guard)
  The up down switch can be used to move the bowl up until it hooks onto the cover and then move it down until it touches the base.

7.12 CYCLE

- Open the protective doors (fig. 3.1 moveable guard)
- Check that the spatulas and scraper are firmly fixed to the supports
- Place the bowl into the bridge structure and slide along the guides
- Push the bowl up against the micro switches (bowl presence)
- Close the protective doors (fig. 3.1 moveable guard)
- Press the start cycle button and the green light will come on. The bowl will start to move up automatically.
- The mixer will function throughout the cycle set on the timer and at the end of the cycle the 3 second siren will signal cycle end.
  Set the switch to down to move the bowl down.

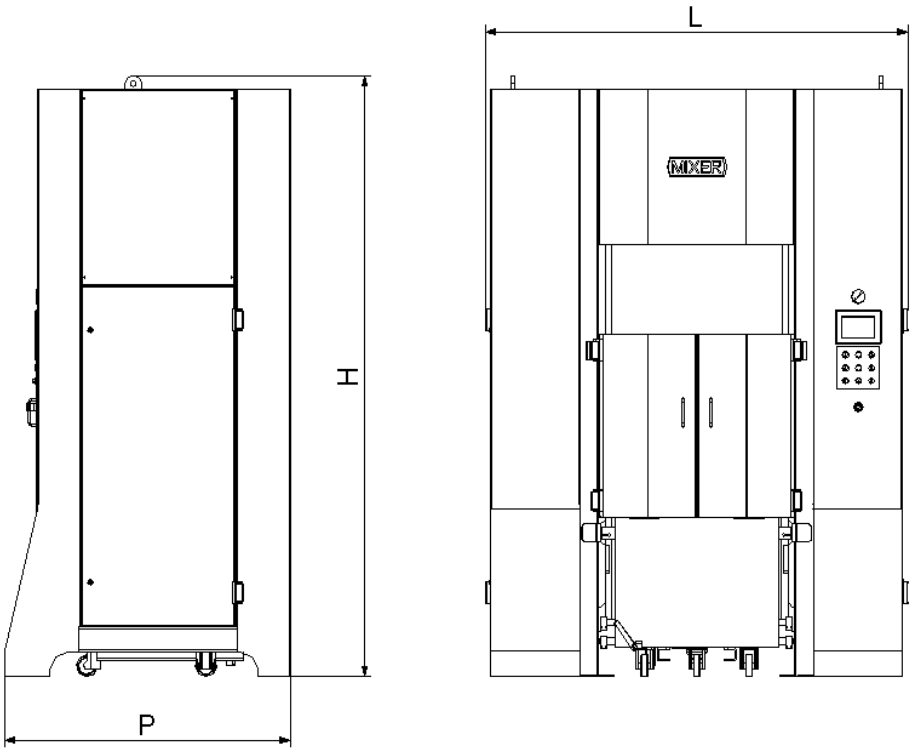
7.13 ALARMS INDICATING OVERLOAD

- The light (15) indicates overload and comes on alongside one of the magnetothermal protection devices for the resistances or motors of the lifter.

8.0 COMPOSITION OF MACHINE

The machine has been designed for food processing. For this reason, selection of component materials was subjected to rigorous standards.
All parts coming into contact with foods have been manufactured in special steel.

9.0 TECHNICAL DATA



MODEL	**MR 150**	**MR 280**	**MR 400**	**MR 600**
L (mm)	1650	2000	2200	2250
P (mm)	1200	1350	1600	1500
H (mm)	2200	2800	3400	3900
Total bowl volume (LT)	150	280	400	600
Total weight (kg) ;	1300	2300	4000	5500
Dough capacity (kg)	100	180	250	400
Supply voltage (V)	400	400	400	400
Frequency (Hz);	50	50	50	50
Power motors (kw)	7.5	12	26	40
Db aerial noise (A);	< 70	< 70	< 70	< 70

10.0 DIRECTIONS FOR USE

10.1 General notice

At the end of the kneading operations, do not go away from he machine without switching it off.
Check that the protection covers are really closed so that the micro-switches do not prevent the machine from working correctly.
Do not use the protection covers to stop the machine. For such a function, use the special stop push-button. Check that the emergency push-button is not closed; in this case operate on the same push-button in order to re-set the normal working of the machine.

10.1.1 Power cut

In the event of a power cut, machines with automatic controls (timers) will stop and when the power comes back on functions will have to be reset from start cycle with the same settings used earlier.

10.1.2 Restart after the emergency stop

After the emergency stop, the safety rule provides for that two re-adjustment operations are needed for bringing back into use the machine functions.
The first adjustment operation consists in a mechanical activation of the emergency push-button (through rotation or call) and the second one through a restarting of the functions after resetting.

10.2 Loading the machine

Place the ingredients for the recipe into the bowl in the maximum overall quantity for the capacity as indicated in the technical specifications data table.

L) SELETTORE DI SALITA E DISCESA VASCA

11.0 ROUTINE MAINTENANCE

	Before carrying out any maintenance or cleaning intervention, take the plug preventively away from the socket. It is strictly forbidden to carry out any operation while the machine is in motion. At the end of the intervention, check that the carters concerned and the eventual removed panels are installed again at their place.

11.1 Machine washing

Wash the machine carefully before any expected and long inactivity periods of time.
Clean always the machine after terminating the working operations.
Before starting these operations, mentioned here below, put on suitable protection and sanitary clothes.
Take the greatest care in using detergent substances. Use neutral soap or products for food only. A polluting product shall be dangerous for health and environment.
It is strictly forbidden to discharge any product or working waste materials into sewers, among the urban waste, into water courses, on the ground or in the environment.

11.2 Maintenance and cleaning interventions frequency

For a good working of the machine, in safety conditions, it is needed to replace the defective parts, in particular the safety device at the first non-conformity signs and to carry out any maintenance and cleaning operations according to regular intervals as mentioned here below :

Daily	- Bowl should be cleaned using the scraper and then wiping with a cloth moistened with detersive - Tool spindle should be cleaned using a damp cloth moistened with detersive.
Weekly	- Clean mobile guard, varnished parts including the control box with a cloth moistened with detersive - Clean burner with compressed air
Every months	- Clean whole parts of the machine using a vacuum cleaner after removing or opening the different panels - bowl lifting/descent screw greasing through lubricators placed on bowl connections (fig.1).
Every three months planetary	- Greasing bearing support planetary and fifth wheel

Tipologia grasso: **KEM & LUB Special grease 2**

Fig. 1 - bowl lifting/descent screw greasing point installed on both connections.

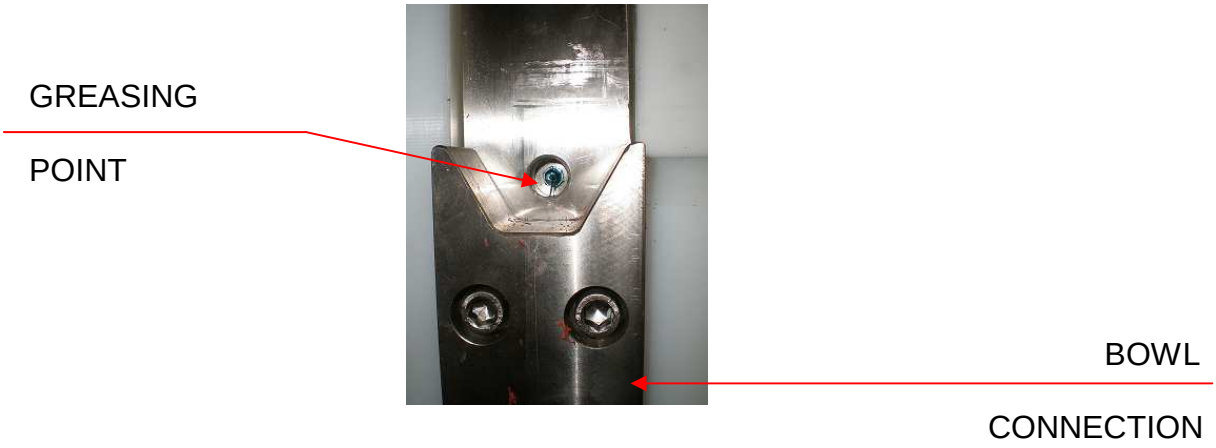


Fig.2 - bearings greasing point (MR600-800)

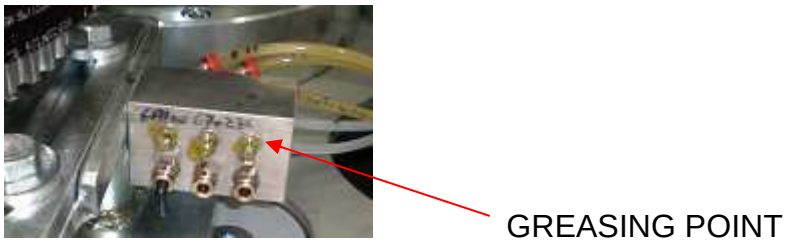
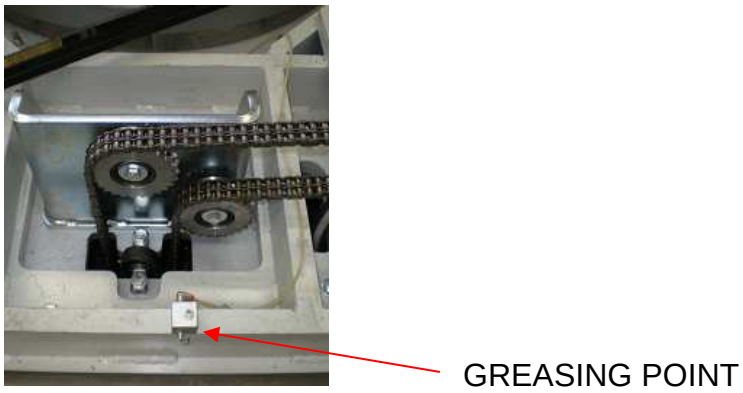


Fig. 3 - fifth wheel greasing point (MR600-800)



Electrical maintenance

In the event of overload, the devices in question will automatically reset after a few seconds. Reset does not bring automatic restart of the machine.

N.B. : Intervention of protection devices indicates overload of the bowl.

11.3 Mechanical maintenance

	The mechanical maintenance requires the intervention of professionally qualified and skilled personnel only. Carry out the mechanical maintenance operations only after disconnecting the power supply .
	If - after inspection - some worn out components need to be replaced, get in touch with the area retailer or with the Manufacturer and follow their directions .

11.4 Electrical maintenance

	Any even slight electric system intervention, requires the assistance of skilled and qualified personnel only.

12.0 INTERVENTIONS TO SOLVE TECHNICAL PROBLEMS

12.1 RECOMMENDATIONS

If the working tool is not revolving **remove the plug from the socket** and carry out the following checks:

12.2 FUSES

Check fuses are in good working condition (where necessary, replace with new fuses of the same type).

12.3 OVERLOAD MOTOR PROTECTIONS

Check that the overload protections have been inserted (where necessary, reset by pressing the buttons located above).

12.4 MICRO SWITCHES

If, after these checks, the mixer still does not revolve check that the micro switches for the protection device have been calibrated correctly (micro switches are located on the upper part of the moveable guard and can be accessed from the outside).

12.5 MICRO SWITCHES FOR BOWL PRESENCE

Make sure the bowl presses against the two micro switches to permit upward movement.

12.6 OIL

Check oil levels for the gear motor on a monthly basis using the indicator provided at the rear of the machine.

Oil type planetary gear : **WLADOIL ENGINE GEAR SINT 320**
Oil type motor gear TRAMEC TC140: **SHELL OMALA S4 WE 320**

12.7 SCRAPERS

Make sure Teflon scrapers function efficiently at all times.
We recommend they should be replaced annually.

12.8 LIFTER GEARMOTOR

The lifter gear motor does not require any particular maintenance as it is lubricated with grease rather than oil.

12.9 SEALS

These should be in good working order at all times.

13.0 LONG TERM LAYING ASIDE

Disconnect the machine from any source of energy in case of laying aside or protracted exclusion from work of the same. The machine is to be cleaned, lubricated in all its parts and protected by a waterproof material in order to prevent any dust infiltration or insects and rodents passage etc.
If the machine is moved to an unguarded place, make sure that it is not subject to any crashes or violations; it shall be placed in a dry room and protected against any atmospheric agents .
On resetting it, a preliminary and careful inspection of its integrity is needed and must be carried out by skilled staff only.

14.0 OUT OF SERVICE AND SCRAPPING

In case of definitive machine out of service, it is recommended to proceed as follows:

- take away the electrical supply cable after disconnecting it from the plug ;
- eliminate all mobile parts being source of danger;
- scrap parts without painting and place them into the suitable waste collecting containers according to the normative rule in force;
- scrap the parts with painting as special waste and place them into the suitable collecting containers according to the normative rule in force;
- eliminate any eventual liquid and/or polluting materials according to the normative rules in force.

15.0 SERVICING AND MAINTENANCE INTERVENTIONS

- This model allows a summing up of the interventions which have been carried out during the machine lifetime. Fill in it in all its parts and sign for confirming the execution of the intervention.

Intervention description and replaced parts	Signature of the Engineer