

**VACCUM MIXER
VACUMIX
Ref. WD700 e WD700A**

**HANDBOOK FOR USE
AND
MAINTENANCE**



HANDBOOK FOR USE AND MAINTENANCE

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CE DECLARATION OF CONFORMITY

Dir. 98/37/CEE

WE

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DECLARE UNDER OUR EXCLUSIVE RESPONSIBILITY THAT THE PRODUCT :

MIXER VACUMIX
Model WD700
Ref. WD700 e WD700A

WHICH THIS DECLARATION IS REFERRED TO, IS IN COMPLIANCE WITH WHAT IS
ESTABLISHED BY THE DIRECTIVES:

89/336/CEE Electrical equipment - Electromagnetic compatibility
73/23/EC Electrical components
2002/95/CEE ROHS
and further modifications

and to the armonized standard:

EN61326-1:1997 + A1:1998
EN61010:2001 (2nd Edition)

Avegno (GE), June 2009



(Dr. Eugenio Miceli)

A handwritten signature in black ink, appearing to read 'E. Miceli', written over a horizontal line.

CHAPTER 1

GENERAL REMARKS

1.1 CONGRATULATIONS ON YOUR PURCHASE

Congratulations for choosing this product.

You have purchased a product that has been manufactured with the highest precision and verified and tested with meticulous craftsmanship.

Since the 1980's Micerium S.p.A. has been introducing innovative products and receiving prestigious achievements in the dental industry.

Micerium S.p.A., to confirm its continuous involvement to fulfil its Customers requirements, applies from 1998, the most comprehensive quality system that ensures a good quality management in all the stages from design to development, manufacture, installation and service.

We want to thank You for choosing us and we are confident this new purchase will give You an efficient support for your job.

1.2 PRODUCT DESCRIPTION AND INFORMATION

NAME:	Vacuum Mixer VACUMIX
MODEL:	WD700 Ref. WD700 Ref. WD700A
YEAR OF MANUFACTURING:	2009
MANUFACTURER:	MICERIUM S.p.A Via G. Marconi 83 16030 Avegno (GE) - Italy

For more information, please contact the Micerium's sales offices at the followings:

- Phone number: (+39) 0185 78 87 880 (our sales offices are open all weekdays);
- Fax: (+39) 0185 78 87 970;
- E-mail: micerium@micerium.it

1.3 GLOSSARY

The following symbols and their respective meanings are found in this instruction manual:



CAUTION

The caution symbol calls the attention to an operating procedure, practice or another similar measure that, if not properly followed or respected, can **seriously damage the functionality and the safety of the product**.



WARNING

The warning symbol calls the attention to an operating procedure, practice or another similar measure that, if not properly followed or respected, can **CAUSE INJURIES**.

1.4 GENERAL SAFETY DIRECTIONS



WARNING

The unit can only be safely used after reading and understanding the instruction manual, the safety indications, all additional literature and strictly following the directions given.
The machine must be used only for the indicated purposes.

Failure to follow all instructions listed in both documents may result in electric shock, fire, and/or serious personal injury.

KEEP THESE INSTRUCTIONS!

USER:

1. This machine is only for professional use.
2. The equipment must be used only by one trained user. Tools are dangerous in the hands of untrained users.
3. Before using the device, please read the Instruction Manual carefully and completely. Please, learn the operation, applications and potential hazards related to the unit.

INTENDED USE:

The vacuum Mixer VACUMIX is intended for mixing without air every kind of plaster, lining and silicon. Any other use is forbidden.

WORK AREA SAFETY:

1. Do not use the electric device in wet or outdoor environments.
2. Keep work area clean and well lit. Cluttered benches and dark areas invite accidents.
3. Do not operate the device in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Power tools create sparks which may ignite the dust or fumes.
4. Keep children, and visitors away from work area. The work area is forbidden to all these people. They are not understood of any instruction so they could have serious personal injuries. Furthermore, distractions can cause you to loose control.
5. Do not let visitors contact the tool or extension cord. Such preventive measures reduce the risk of injury.
6. Danger zone - An area of at least 30 cm around the unit has to be declared a danger zone, as this is the area in which the personnel does all work.

ELECTRICAL SAFETY:

1. Avoid to contact grounded objects such as tubes, radiators, refrigerators.
2. Don't expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electrical shock.
3. Do not abuse cord. Never use the cord to carry the equipment or pull the plug from a socket. Keep cord away from heat, oil, sharp edges or moving parts.
4. Immediately replace the cord if it is waste or damaged. Damaged cords increase the risk of electrical shock.
5. Connect the tool to an AC power supply that matches the power unit specifications. Incorrect voltage supply can cause electrical shock or burns
6. Emergency - Switch off the unit with the main switch and disconnect the plug from the wall socket.

PERSONAL SAFETY:

1. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medications. A moment of inattention while operating power tools may result in serious personal injury.
2. Dress properly. Wear loose clothing or jewellery is forbidden. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewellery, or long hair can be caught in moving parts.
3. Avoid accidental starting. Be sure switch is OFF before plugging in. Carrying tools with your finger on the switch or plugging tools when the switch is ON invites accidents.
4. Remove adjusting keys or switches before turning the tool ON. A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
5. Always wear eye protection and eventually a mask when preparing the powders to be mixed up.

TOOL USE AND CARE:

1. Do not insert metal objects or other material different from those listed in the intended use, which could damage the mixing bowl.
2. Do not force tool. Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it is designed.
3. Do not use equipment if switch does not turn it ON or OFF. Any equipment that cannot be controlled with the switch is dangerous and must be repaired.
4. Disconnect plug from the power source before making any adjustments or storing the tool. Such preventive safety measures reduce risk of starting tool accidentally.
5. Store idle tools out of the reach of children and other untrained persons. Tools are dangerous in the hands of untrained users.
6. Maintain tools with care. Keep cutting tools sharp and clean. Properly maintained tools with sharp cutting edges are less likely to bind and are easier to control.
7. Always control that the tool isn't damaged and that accessories are well connected – Before using the unit, check with attention its efficiency and the perfect working of the safety devices and if necessary of damaged parts. Safety devices or damaged parts must be repaired or changed by an Authorized Center of Assistance if different indications aren't given. Many accidents are caused by poorly maintained tools.
8. Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one equipment may become hazardous when used on another equipment.
9. If the device falls down, do not use it and send it to an authorized centers of assistance for the proper functional tests.
10. Inspect equipment, connection plug, accessories and cord periodically and replace them if they are damaged.

MAINTENANCE:

1. Tool service must be performed only by qualified repair personnel authorized by Micerium S.p.A. Service or maintenance performed by unqualified repair personnel are not allowed and could result in injury.
2. When servicing an equipment, use only identical replacement parts. Follow instructions in the Maintenance Section of the Instruction Manual. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electrical shock or injury.

For additional safety instructions, please read any enclosed information about the general operation of the machines.

**WARNING**

**Read and follow safety labels on machine!
Know the location and functions of all controls before using this tool**

1.5 GENERAL CONSIDERATIONS

This manual gives the indications about the recommended use of the machine and its maintenance. All personnel responsible for these activities should read and become familiar with this information.

This manual must be considered as an integral part of the machine and must be **“kept for future reference”**.

If this manual is damaged or lost, please contact the Micerium’s sales office to request a replacement copy.

Micerium S.p.A. reserves the right to update machinery and manuals without the obligation of updating any previous revisions, unless there is an exceptional change made in the instructions. The user can however request that Micerium’s sales office provide an updated version of the manual and once it is received, the previous version should be discarded.

If you have any questions that are not answered in the manual, please contact the company directly for assistance.

If you decide to sell this machine, please provide the new owner with Micerium’s contact information so assistance and training can be provided to the new owner.

If this contact information IS NOT provided to the new owner, the manufacturer is relieved of all responsibility linked to an improper use of the machine, and to all other information concerning the machine contained in this manual.

CHAPTER 2

MACHINE SPECIFICATION

2.1 INTRODUCTION

The use of Vacuum Mixer VACUMIX is allowed only to well trained operators.

The machine must be connected to an electrical system (tension AC 230V ~ 50Hz).

2.2 TECHNICAL DESCRIPTION OF THE MACHINE

This mixer is formed by a powder painted plate housing to which are fixed the following principal groups:

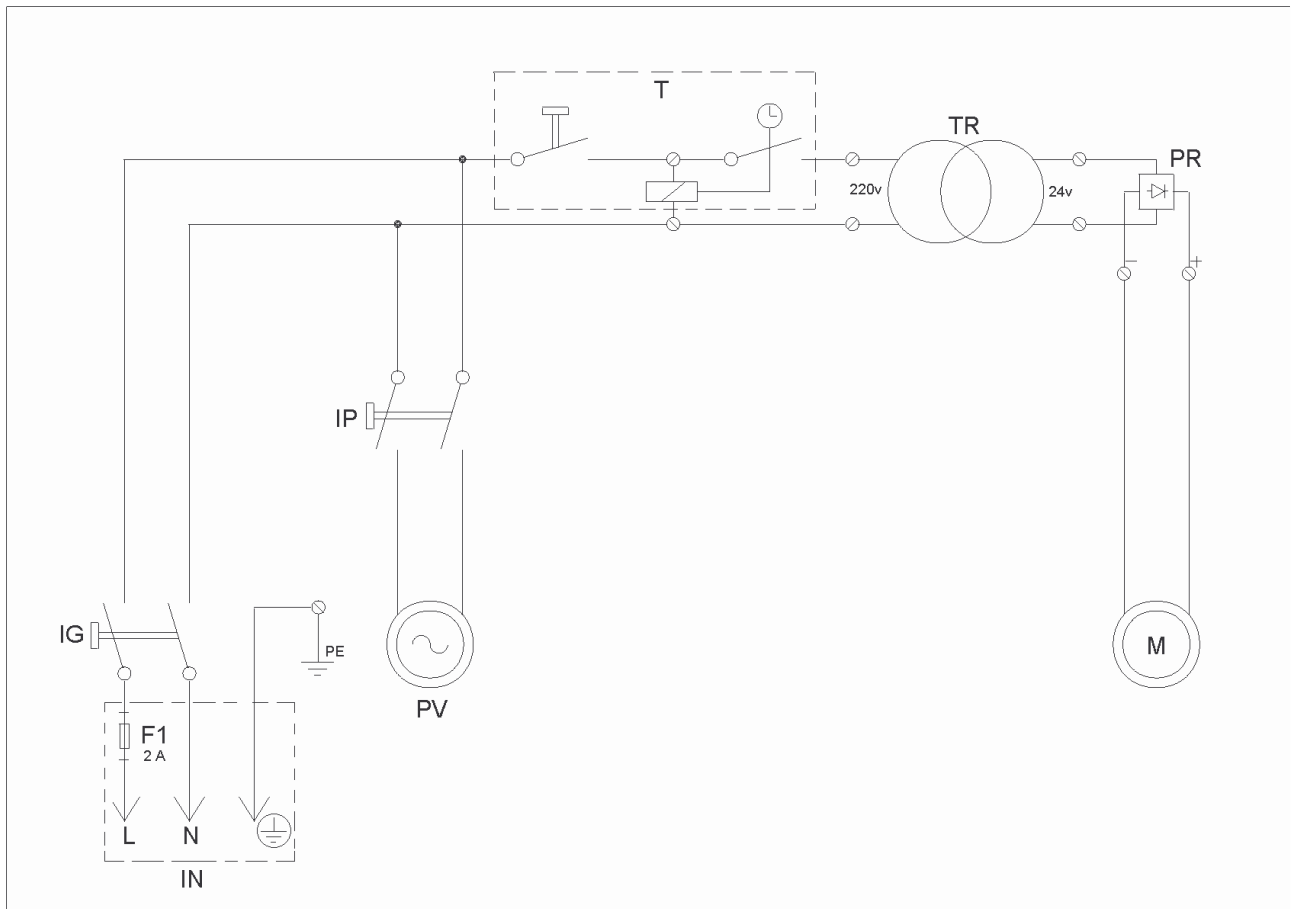
- Vacuum pump: it's an oil free piston pump that doesn't need maintenance.
- Gearmotor: it's a gearmotor working on 24 VCC; no maintenance is required.
- Electric system: it consists in switches and printed circuit.
- Pneumatic circuit: it connects the vacuum pump to the mixer bowl.
- Mixer bowl: it's the part more inclined to wear, it's suggested after the use to clean it with care from plaster or lining. inside the unit there is a filter that protects the pump filtering the sucking air. It must be changed periodically at least each 2000 working cycles and when it seems not well operating (see par. 5.1.3).

2.3 TECHNICAL SPECIFICATIONS

DESCRIPTION	UNIT OF MEASUREMENT	VOLTAGE 220	VOLTAGE 110
Gearmotor		gear	gear
Vacuum pump		oil free	oil free
Absorbed power	WATT.	140	280
Absorbed current	AMPERE	0.75	1.5
Paddle number of rotation	RPM	400	400
Vacuum degree	BAR	0.85	0.85
Packing overall dimensions	mm	160x220x300h (with wall support) 160x220x615h (with table support)	160x220x300h (with wall support) 160x220x615h (with table support)
Weight	Kg	8 (with wall support) 12 (with table support)	8 (with wall support) 12 (with table support)

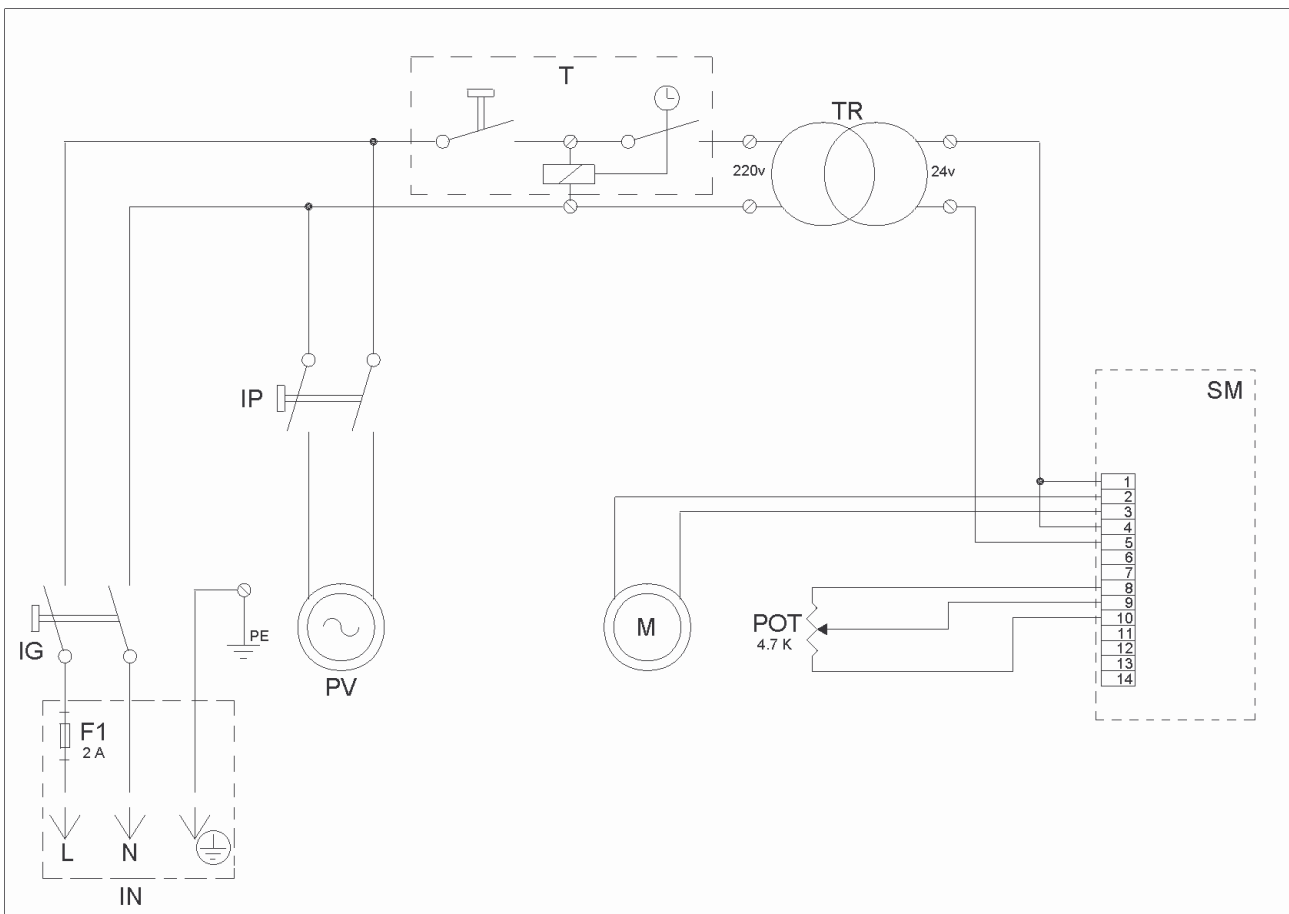
2.4 WIRING DIAGRAM

Model WD700



REF.	DESCRIPTION
IN	Plug- site for fuse
IG	Master Switch
IP	Pump switch
T	Electronic timer
F1	Fuse 2A
TR	Transformer
PR	Rectifier bridge
PV	Spinning pump for vacuum
M	Suppressor gear 24v DC

Model WD700A



REF.	DESCRIPTION
IN	Plug- site for fuse
IG	Master Switch
IP	Pump switch
T	Electronic timer
F	Fuse 2A
TR	Transformer
SM	Power gear card
POT	Linear potentiometer 4.7K
PV	Piston pump for vacuum
M	Suppressor gear 24v DC

CHAPTER 3

STARTING OF THE UNIT AND HANDLING

3.1 INSTALLATION

Remove the unit from the package removing it from the upper opening side.

On receipt of the unit, check that all parts of it are sound. If this is not the case, contact immediately the retailer.

Lay the unit on a stable place in a well lit and dry place with at least 30 cm free on both sides.

Fasten the mixer on the wall using the proper brackets (part. A fig. 1).

The unit is now ready to work.

Don't throw the package away, but keep it for following handlings.

3.2 ELECTRIC CONNECTION

Before connecting the unit be sure that the mains voltage indicated on the data plate agrees with the one of the mains and that is provided with ground cable. Connect the cable head plug of the electric flying cable coming from the unit to the proper outlet. Make this operation when the general switch is on.

The main supply of the unit have to be carried out according to the instruction of Micerium S.p.A. that, however, isn't responsible for the connection. The provided mains supply cable is H05 with a section suitable for the highest absorbed power (indicated in the technical features).

The supply cable has a length of 2 m. In case of using extension, be sure that:

- the cable section fits with its length. Its section has to be almost the same as the one of the connecting cable.
- the positioning of the cable doesn't cause damages.
- the point of connection to the electric power source guarantees the presence of all the necessary protections according to the regulations in force.

3.3 HANDLING

Keep the package of the unit that will be useful in case you'll have to move it to a different working place. In this case, follow the operations indicated below:

- a) switch off the unit, disconnect the electric cable from the outlet and than from the unit.
- b) replace the unit and its accessories, separately, in the package with soft and shockproof material.
- c) put the use and maintenance handbook in the box, than finish the package and close the box.

CHAPTER 4 INSTRUCTIONS FOR USE

4.1 INTENDED USE

The vacuum Mixer VACUMIX is intended for mixing without air every kind of plaster, lining and silicon. The Model WD700A, available on request, has a potentiometer to adjust the speed.



CAUTION

All uses different from those described are not allowed. Do not use the machine with any other material which is not indicated for this machine.

4.2 CONTROLS



Picture 1: Mixer (lateral view)

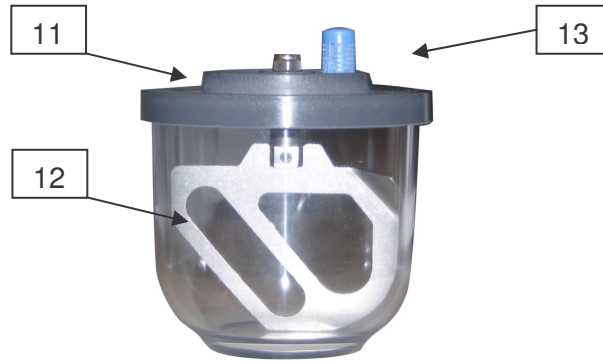
1. Starting switch: it's the switch which tensions the unit.
2. Fuseholder: it contains the fuse that protects the electric part of the mixer.



Picture 2: Mixer (frontal view)

3. Push-button of starting vacuum pump: push this push-button to start the vacuum pump. It is also used to stop the pump.
4. Starting motor push button: push this push button to switch on the motor that transmits the movement to the paddle of the mixer. It's also used to stop it.
5. Push button for the seconds selection on the mixing time
6. Push button for the minutes selection on the mixing time
7. Insertion for mixing bowl.
8. Vacuum gauge: it shows the vacuum degree achieved in the bowl.
9. Valve: switching it on, the air goes in the pneumatic circuit allowing the descent of the bowl.
10. Display for the visualization of the mixing time

The model WD700A is also provided with a potentiometer (not in the figure): it allows to plan the regulation and the reverse the rotation speed of the paddle.



Picture 3: Mixing bowl

- 11. Cover-Paddle
- 12. Bowl
- 13. Filter

4.3 HOW TO USE

The operator must keep himself in front of the unit in order to hold the bowl with his right hands (part. 11 and 12 of picture 3) while with his left hand he must switch on the controls placed on the side of the base (part. 3-4 of picture 2; in the model WD700A also part. 7).

Concerning the use of the unit, follow these operations chronologically:

1. switch on the unit using the start-button (part. 1 of picture 1).
2. choose the mixer times according to the selected material (part.5-6 of picture 2)
3. put the material and the liquid in right proportion in the bowl, than close it with its cover-paddle (part. 11 of picture 3).
4. switch on the vacuum pump using the push-button 3 of picture 2.
5. insert the bowl and its cover in the connection (part 7 of picture 2) placed in the part situated below. If you don't find immediately the position of connection, rotate the bowl until inserting it.
6. push slightly up the bowl so that the gaskets seal well.
7. when the vacuum degree (part. 8 of picture 2) exceeds the $-0,4$ bar on the instruments, you can leave the bowl that will remain tied to the support owing to the vacuum.
8. now start the mixing phase pushing the push-button 4 of picture 2.



WARNING

Always wait that the pump has reached the maximum vacuum degree before starting the mixing.

9. when the mixer time is over, the paddle stops. The beep warns that the vacuum mixing has happened.
10. push the push-off button of the vacuum pump (part. 3 of picture 2) than first seize the bowl (part. 11-12 of picture 3) and later switch on the pneumatic valve (part. 9 of picture 2) that will take it go down.



WARNING

Never switch on the pneumatic valve (part. 9 of picture 2) during the working phases, because the bowl would fall down.



CAUTION

If the power supply is disconnected during the working phase, the unit will be stopped, resetting the mixer times. In this case the operator must take away the bowl immediately.

4.4 ACCESSORIES

Supplied accessories:

- electric cable with outlet EN 60320-C13 and plug Schuko EEC-7/7
- 500 cc bowl with filter, cover and paddle
- 1 setscrew wrench 5 mm.

Accessories available on request :

- 2000 cc bowl with filter, cover and paddle
- 1000 cc bowl with filter, cover and paddle
- 200 cc bowl with filter, cover and paddle
- 200 cc bowl for alginate, with cover and paddle
- 1 support for installation of the unit on the wall.

CHAPTER 5

MAINTENANCE INSTRUCTIONS

5.1 PERIODICAL MAINTENANCE BY THE OPERATOR

All the maintenance operations must be made when the unit is switched off, disconnected from the mains.

5.1.1 Mains supply cable

Test periodically the mains supply cable conditions. If it will appear damaged, have qualified people change it.

5.1.2 Lubrification

Periodically test the smoothness of the rotation of the paddle with respect to the cover of the bowl (part. 11 of picture 1). It may happen that the paddle tends to become hard for the infiltration of external material, in this case remove it, unscrewing the upper nut, then clean and lubricate with oil, finally reassemble all and check the efficacy of the operation.

We suggest to damp with oil the O-ring gaskets both of the bowl and of the connection.

The internal part of the mixer doesn't need greasing.

5.1.3 Replacement of the filter

This operation must be made periodically by qualified personnel at least once each 2000 cycles or in case of malfunction of the unit, for example when the unit has problem to retain the bowl, even though the vacuum gauge signals a good vacuum.

5.1.4 Cleaning

Keep the unit in order and clean. It's very important to clean the bowl carefully after use, without leaving parts of material inside.

CHAPTER 6

CUSTOMER CARE & WARRANTY

6.1 TROUBLES-CAUSES-SUGGESTIONS

All this operations must be done when the unit is disconnected. Don't carry out maintenance operations, regulations or repairs that aren't indicated in this use and maintenance handbook. In case of necessity contact our technical assistance.

TROUBLES	CAUSES	SUGGESTIONS
The unit doesn't start	The electric power doesn't arrive to the unit	Be sure that the connection cable between the unit and the electric system is correctly connected in the respective outlets.
The paddle doesn't turn freely in the cover	The O-ring gasket placed on the pin is lacking in oil or there is external material between the 2 surfaces of the pin and its seat.	Disassemble the paddle, clean and grease the pin and the O-ring gasket and then reassemble it.
The mixer has problem to retain the bowl (the vacuum gauge doesn't signal vacuum)	The O-ring gaskets placed on the cover-bowl and the connection of the mixer are dirty and dry, so they don't seal	Clean the gaskets from parts of material and lubricate them with oil. Clean the surfaces where the O-ring work, change the gaskets if are damaged (turn to qualified personal)
Even if the mixer works, it doesn't retain the bowl	The filter is obstructed	Change the filter (turn to qualified personal)
	----- There is air infiltration in the pneumatic circuit	----- Turn to qualified personal



WARNING

For every not listed problem, please return the machine to Micerium S.p.A.'s assistance.

6.2 WARRANTY

The unit is guaranteed for 12 months both for materials and construction.

This unit has been constructed and manufactured under consideration of all safety regulations. Should the unit show any manufacturing errors or irregularities during the guarantee period, the manufacturer according to our standards will fix them. For any guarantee claim, the invoice or delivery note must be provided as proof. The guarantee is limited to the replacement of the part or parts which show the manufacturing error or irregularity.

Excluded from guarantee are: personnel costs, expenses of the technical staff, transport costs, packaging, etc. Furthermore, errors or other problems that the manufacturer cannot be blamed for or parts that are subject to normal wear may not be claimed under guarantee.

Direct or indirect damage claims towards any persons or things may not be derived from this guarantee, even if the reason for the damage could be traced back to the unit. This guarantee will automatically be terminated, if the unit is repaired, changed or opened by force by the user/buyer or any unauthorized third party.

Should any problem occur during the guarantee period, the user/buyer have only to contact the manufacturer or an authorized service center named by the manufacturer.

The right to exchange the complete unit for a new one is excluded. Any parts replaced during the guarantee period must be returned to Micerium S.p.A., who will supply a new part. Should the replaced part not be returned, it will be billed to the user/buyer

4.3 TECHNICAL SERVICE

Please contact Micerium S.p.A. at the followings:

- Phone number: (+39) 0185 78 87 880 (our sales offices are open all weekdays);
- Fax: (+39) 0185 78 87 970;
- E-mail: micerium@micerium.it

4.4 DEVICE DISPOSAL

Information to Users

This product is covered by the European Directives 2002/95/EC, 2002/96/EC and 2003/108/EC, for the reduction of the use of hazardous substances in electrical and electronic equipment, and disposal of waste.

The symbol of bin crossed reported on your equipment or its packaging indicates that the product at the end of its useful life must be disposed separately from other waste.

A separate collection of this equipment arrived at the end of its life is organized and managed by the manufacturer. If you want to get rid of this equipment, please contact the manufacturer and follow the system that he has chosen to allow separate collection of the apparatus arrived at the end of its life.

A proper separate collection for the next launch of the disused equipment to recycling, treatment and environmentally compatible disposal helps to avoid possible negative effects on the environment and on health and promotes reuse and / or recycling of materials composing the equipment. The illegal disposal of the product by the holder includes the application of administrative sanctions provided for by law.





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