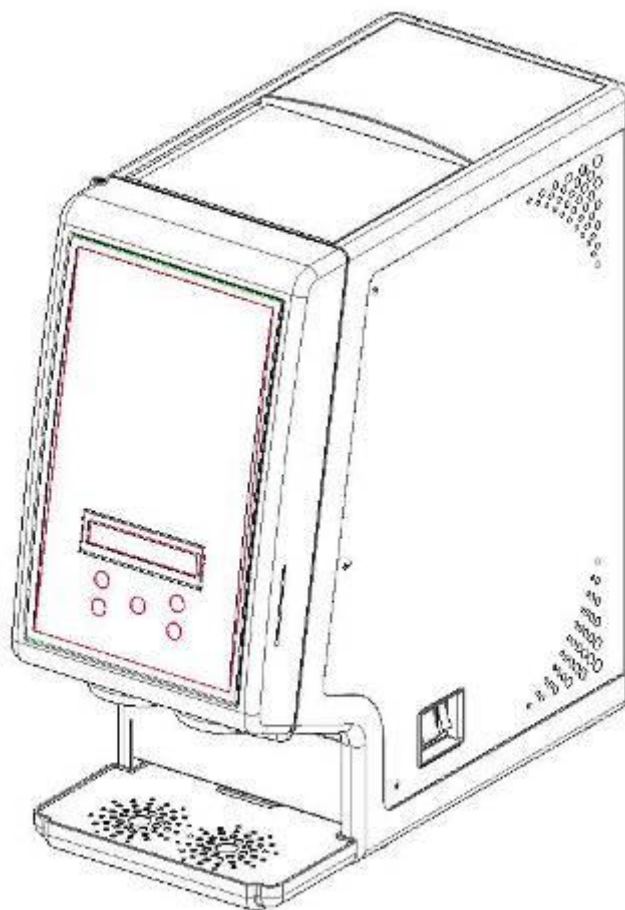


USE AND MAINTENANCE MANUAL



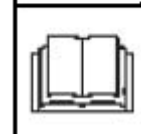
GH2 NEW

Dimensions:
D x L x H --- 410 x 200 x 480 mm

Official language of the manufacturer
ITALIAN

Model: GH2 NEW

Issue: 12/2023
Revision level: 00



Manufacturer of this appliance is

S.P.M. Drink Systems S.p.A. – Via Panaro 2/b 41057 Spilamberto (MO)

All reproduction rights of this manual are reserved to it, even partial reproduction is prohibited.

The descriptions and illustrations refer to the specific machine/plant in question. The manufacturer reserves the right to make any modifications he deems appropriate to series production at any time.

This manual:

- it is an integral part of the supply and must be read carefully in order to use it correctly, in compliance with the essential safety requirements;

- it is drawn up according to the provisions of the Machinery Directive 2006/42/EC and contains the technical information necessary to correctly carry out all the procedures in safe conditions;

- it must be stored with care (protected in a transparent and watertight casing to prevent deterioration) and must accompany the machine throughout its life, including any change of ownership. In the event of loss or deterioration, a copy can be obtained by requesting the manufacturer, reporting the data on the identification plate

The manufacturer declines all responsibility for improper use of the machine/plant and/or for damage caused as a result of operations not covered in this manual.

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10. UNINSTALL - DISPOSAL



0. SAFETY INSTRUCTIONS

This installation and operation manual is an integral part of the equipment and must be kept for future consultation.

Unless otherwise stated, this manual is addressed to operators (staff members who uses the equipment on a daily basis) and to servicemen (staff members qualified to carry out the installation and/or maintenance). **T**he parts of the manual addressed only to servicemen are pointed out accordingly. Please read carefully the warnings listed here below before installation and start-up of the equipment. **T**his equipment has been designed to produce coffee, hot chocolate and similar products in powder and soluble in water, do not use for melt frozen product and in case the product is frozen, do not operate the appliance

Upon receipt of the equipment, make sure that its part number matches the one specified in the order, which can be found on all the delivery documents.

This equipment is exclusively destined to the purpose for which it was designed.

The manufacturer cannot be held responsible for any damage due to improper use.

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. **C**hildren shall not play with the appliance.

Cleaning and user maintenance shall not be made by children without supervision.

This equipment is not suitable for outdoor use. This machine is not suitable for installation in locations where water jets are used and it must not be cleaned by a water jet.

The appliance is only to be installed in locations where its use and maintenance is restricted to trained personnel.

Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.

This appliance is intended to be used in household and similar applications such as

- **S**taff kitchen areas in shops, offices and other working environments;
- **F**arm houses and by clients in hotels, motels and other residential type environments;
- **b**ed and breakfast type environments;
- **C**atering and similar non-retail applications.

The installation and subsequent servicing operations must be carried out by skilled members who have been trained to use the device and in compliance with the regulations in force.

The machine has to be placed on a sturdy, horizontal surface making sure it is well ventilated by leaving a gap of 20 cm around it and do not install it near heat sources (fig.1); **we recommend you to maintain a room temperature between 24 and 32°C.**

For a safe and correct installation, it is essential to provide a suitable socket controlled by a thermal cut-out switch whose contacts are at least 3 mm apart, in accordance with the current national safety regulations.

If the power cable is damaged, it must be replaced by the manufacturer, its after sale service or by qualified personnel, to prevent any possible risk.

The continuous, equivalent, weighted level of acoustic pressure is below 70 dB.

Safety conditions during maintenance

To ensure sufficient industrial safety, the operator must observe the following points:



- **W**ith the machine on, avoid touching exposed components or electrical connections as the machine is under dangerous voltages.
- **I**f you remove a guard or replace an electrical component, always make sure that you have previously switched off the tension from the entire line.
- **A**ny maintenance operation must be carried out by qualified, authorized personnel.
- **A**ny kind of maintenance operation must be carried out with the machine off, checking that the electric power has been previously turned off, that the water system (if present) is closed and that the pneumatic system (if present) has been depressurized.
- **D**o not carry out any electrical maintenance in the presence of water or in areas with high humidity.
- **M**ake sure the area where you carry out maintenance operations, is clean and dry.
- **I**f the line is live, cover the exposed terminals and work safely, always adopting appropriate protections.
- **N**ever put your body, limbs or fingers in the chambers or openings of the machine when it is operating.
- **D**o not wear watches, rings, jewelry; avoid wearing loose or dangling apparel such as ties, torn garments, scarves, unbuttoned jackets, which could accidentally become entangled in the moving parts of the machine. **A**lso not collected hair can be sucked in from the motor fans, resulting in scalp laceration.
- **O**nly wear approved safety garments.
- **W**hen there is a possibility of getting hit by projections or from falling solid parts or similar, use safety glasses with side blinkers, helmets or gloves, if necessary.
- **W**hen working with presence of heat on areas, surfaces or materials, it may be required to wear gloves and other personal protective equipment, to avoid burns in case of manual intervention.

When replacing parts, use only original spare parts.

To contact the technical service center, see page 2 of this manual.

All repairs must be supervised by a person in charge For the entire duration of maintenance and repair work on the machine, **the main switch** must remain off (in zero position).



All the maintenance operations must be carried out with the machine stopped and electric power turned off. It is always necessary to refer to the occupational officer for all regulations applicable in the given case.

Routine and scheduled maintenance

Routine maintenance involves a few simple operations which can be carried out by the operator of the equipment. To obtain maximum service life and the best economy of operation we recommend that you follow **carefully** the instructions in this chapter.



Routine maintenance concerns mechanical tasks (adjustments, lubrication, cleaning) and electric tasks to be carried out periodically on the machine by checking the tables in the following pages. In order to successfully perform maintenance operations, it is necessary to pay particular attention to the following general rules.

General rules for the maintenance of the mechanical components



- During the removal of the components, avoid dust entering in work areas and in the components.
- Do not use petrol or inflammable solvents as detergent, always use authorized commercial solvents provided they are not flammable or toxic.
- Do not use compressed air to clean mechanical parts. The dust should be removed only by vacuum cleaner or cloths.

General rules for the maintenance of the electric components



- Pay attention to the following general rules for electrical components.
- Do not drill holes on electric cables which contain wires.
- Do not use water, pieces of sponge, damp and/or abrasive cloths to clean the machine and the electrical components.
- Do not use compressed air to clean the electric components. The dust should be removed only by vacuum cleaner or with a cloth dampened with mild detergent. It is important to avoid the penetration of detergents in electric parts.

Cleaning procedures

In order to maintain the unit in like-new operating condition and to respect current regulations, it's absolutely necessary to frequently and carefully perform the cleaning operations as described below.

In case of prolonged shutdown (winter storage), the machine must be disassembled, washed and sanitized according to the instructions in this manual before start-up to ensure the best possible cleanliness.

!Caution!

Electric shock hazard. **Do not splash water on switches or allow water to flow onto electrical components inside the machine.**

!Caution!

To prevent bacteria growth, **use only sanitizers approved for plastic and rubber objects, failure to do so could create a health hazard.**

NOTE: it is responsibility of the operator to be aware of and conform to the requirements of current local, state and federal laws concerning the frequency of cleaning and conservation of products used.

The cleaning instructions explained in this section are essential procedures to remove bacteria and maintain a sanitarily clean machine.

We recommend to perform the cleaning and sanitizing procedures every day and anyway according to the local laws.

The machine and the mix manufacturers decline all responsibility to damage that directly or indirectly derives from people, animals, as consequence of failure to comply with all cleaning and sanitation instructions indicated in this manual.

In order to always have a correct operation of the equipment, it is essential to perform frequent and thorough cleansing and to comply with applicable health regulations.

!Caution!

Do not use water jets under pressure while cleaning

!Caution!

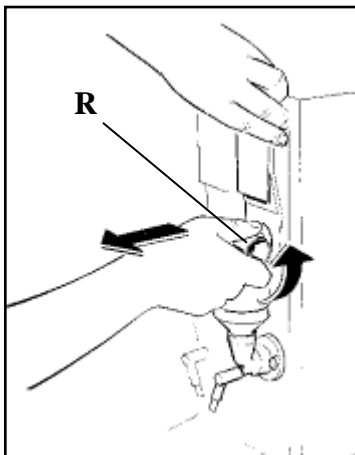
All cleaning operations must be carried out after switching off the machine and unplugging the power cord.

Never clean the machine when it is on.

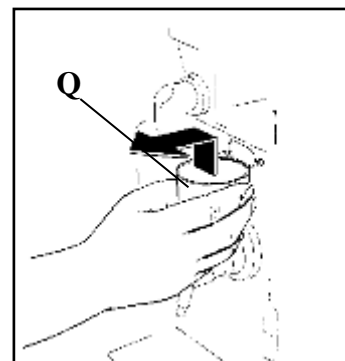
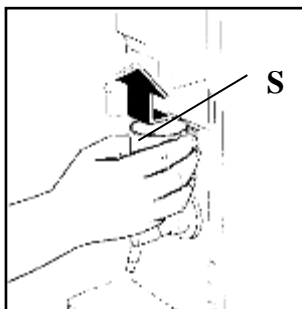
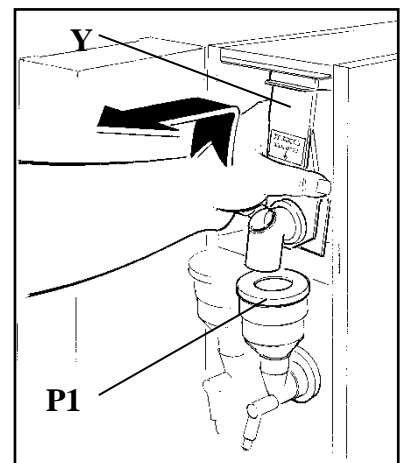
Every day (daily cleaning)

To avoid the formation of lumps inside the brewing pipes, it is necessary to perform a daily wash, by pressing and holding the "n" button at the end of the working day before performing the component cleaning operations described below:

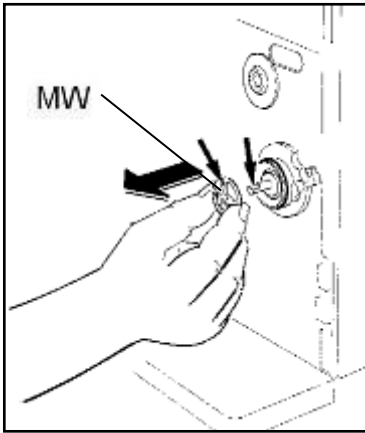
- Release the product container Y from the mixing unit;
- Rotate upwards the outlet fitting R of the powder container and pull out to remove it.



- Remove the splash cover P1;
- Pull up on the top of the mixer S to separate it from the funnel Q.
- Lift the funnel Q and pull it outwards.

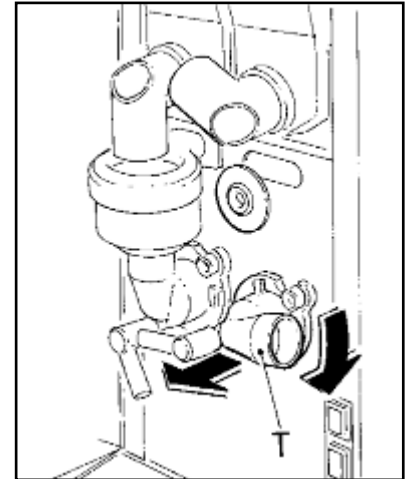


- Rotate clockwise the mixer T and pull it outwards to remove it;



- Remove the product mixing wheel MW using a screwdriver;

Caution: during refitting operations, the point indicated by the arrow on the wheel and the groove on the shaft must correspond.

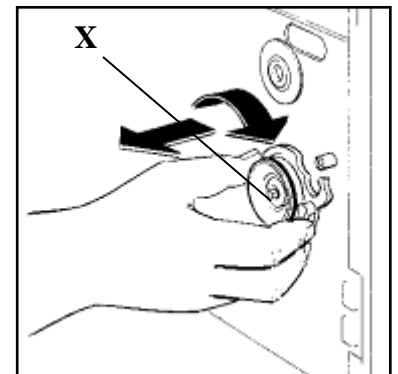


- Rotate the support X, and pull to remove it.

- Carefully clean all of these components with warm water, dry them completely and refit them.



- Carefully clean the inside of the door to remove any drops of product.



Weekly

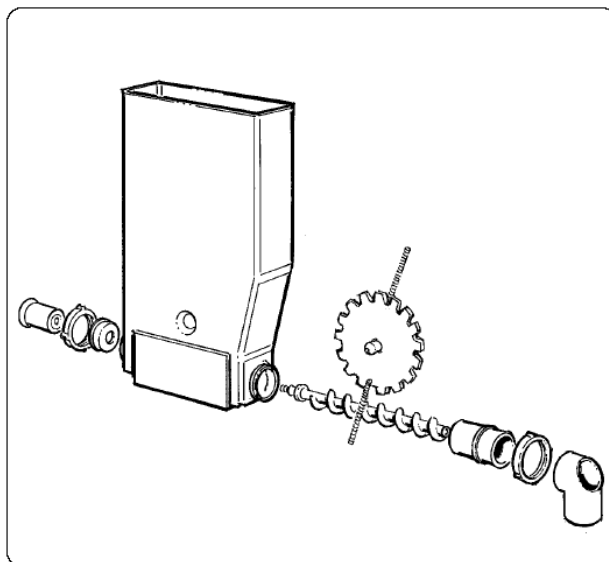
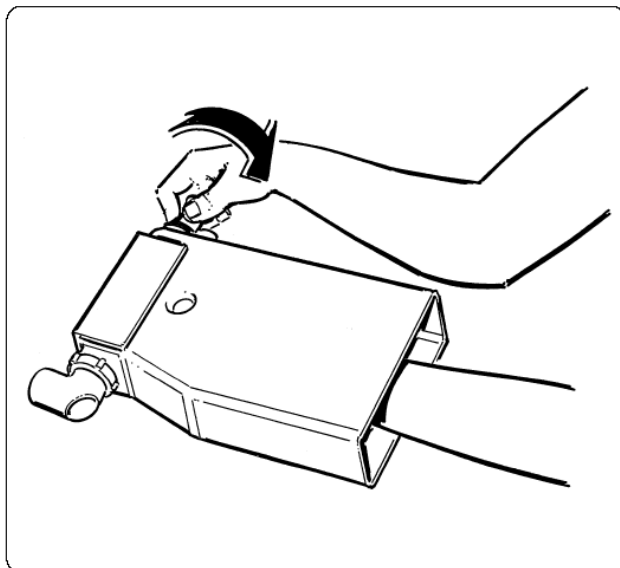
Clean the tank W. Periodically check the cleanliness of the filter installed on the pipe J1.

Monthly

Clean the containers of the soluble products.

- Carefully empty the containers of the soluble products from any product build up inside them.
- Holding with one hand the central gear, rotate counterclockwise the motor shaft coupling.
- In doing so, all the components that are part of the container will disassemble, as shown in the Figure to the side.
- Carefully clean all the parts removed with warm water and wash liquid. Then, rinse them carefully, dry them perfectly and reassemble.

To avoid condensations of product inside the container due to the presence of moisture that may compromise the correct operation of the equipment, it is essential that the containers are perfectly dried before being installed.



1. GENERAL INFORMATION

This user manual refers to the chocolate machine and reflects the state of the machine at the time of delivery. It contains the main information for installation, use, monitoring and maintenance of the machine. Includes a list of spare parts.



This manual is an integral part of the machine and should always be carefully stored up to the final dismantling of the machine.

In the event of damage that makes the copy of the manual in your possession unusable, you may request a copy to the customer service or contact the reseller specifying the type of machine and the serial number on the plate of the machine.

The customer support service is always available to provide, upon request, information about updates applied to the machines.

The producer shall be relieved of any liability for damage caused by:

- unauthorised use of the machine
- use by non qualified and/or non trained personnel (the user should be qualified and/or trained by a Technical Service Centre or equivalent person)
- Incorrect installation (if performed by non trained customer)
- power supply faults
- inadequate maintenance or cleaning of the machine
- unauthorised modifications and operations
- wrong manoeuvres
- use of non-original spare parts
- use of accessories not foreseen or not authorized in writing
- total or partial failure to observe the instructions
- exceptional events

Without the written consent of **the Producer**, the partial reproduction of this manual is prohibited, and its contents cannot be used for purposes other than those provided for in the user relationship.

This original manual is in Italian, the only official language the manufacturer is responsible for in case of non-conformance with the translations. In the case of translations, the user should contact the dealer or the manufacturer if he does not fully understand the text.

1.1 SYMBOLS AND TERMS USED IN THE MANUAL



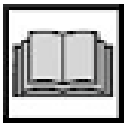
Caution

Indicates instructions that only if properly followed avoid **risk situations for people**, informs **on dangers and how to avoid them**, suggests behavioural procedures.



Warning

Indicates situations that may cause a risk to the machine and/or to the product being processed and/or for the environment.



N.B.

Indicates useful information for the consultation of the manual and the good operation of the machine.



Operator/s

Staff responsible for the various activities related to the entire life cycle of the machine, handling, installation, use, ordinary and extraordinary maintenance of the machine.



Mechanical maintenance technician

Indicates routine and scheduled maintenance procedures to be performed safely. These are the responsibility of the person authorised and trained for such purposes.



Electrical maintenance technician

Indicates routine and scheduled maintenance procedures to be performed safely. These are the responsibility of the person authorised and trained for such purposes.



Qualified technician (Technical Service Centre)

Indicates the procedures of installation, commissioning and/or corrective maintenance (electrical/mechanical) that rest with the service technician who is an employee or is authorized by the manufacturer.

Meaning of terms and definitions:

Exposed person:	any person who is wholly or partially in a dangerous area.
Dangerous area:	any area inside and/or close to the machine which constitutes a risk for the safety and health of the person.
PPE:	personal protective equipment
Operators:	trained operators authorized to operate the machine (on specific workstations, general control panel and button panels) and to perform a visual check of correct operation.
Maintainers:	specialized operators, authorized for routine maintenance of the machine, each one with its skills (mechanical and electrical).
Qualified technicians:	operators employed by the Manufacturer or by the Technical Service Centre, trained for corrective maintenance.

1.2 STAFF TASKS

The tasks of the staff are shown below. The corrective action of a Customer Service Centre is foreseen only in case of specific anomalies or processing issues that are not solved.



Care of the operator (user):

- operations on push button controls, that are related only to normal use;
- visual check of proper functioning of the machine;
- cleaning.



Care of the maintenance technician:

- mechanical adjustments;
- use of manual controls for work groups operating checks;
- routine maintenance operations;
- corrective maintenance operations, replacements of defective parts (if authorised by the manufacturer).



Care of the electric technician:

- electrical adjustments;
- periodic check of the efficiency of the safety systems;
- use of manual controls for work groups operating checks;
- corrective maintenance operations, replacements of defective parts (if authorised by the manufacturer).



Care of Technical Service Centre:

- supplying to the operators and maintainers the support for the time necessary to understand the proper use and adjustment of the machine and the contents of the manual;
- ensuring the consistency of activities and tasks, following training, recorded with appropriate individual certificate (later, this task and related checks are the responsibility of the user).

2. SAFETY PRECAUTIONS FOR THE OPERATOR

The user of the machine must know the machine and the safety devices indicated in this manual prior to installation, commissioning, use and maintenance or other operations on the machine. He designates the personnel in charge of the operation of the machine and is responsible for their training with particular reference to the existing safety standards.

The user shall supervise and respect the following items:

- Do not allow unauthorised personnel to work on the machine.
- Do not use the machine if faulty.
- Before using the machine, ensure that any unsafe condition has been properly eliminated;
- Make sure that guards and other protections are in place and that all safety devices are present and efficient.
- Make sure that the area of the operator is safe and there are no foreign objects;
- Any maintenance operation must be carried out with the machine isolated from energy distribution networks (electricity or other);
- When prescribed, personal protective equipment must be used;
- Operations of connection, commissioning, maintenance, measurements and adjustments of the electrical equipment or its components can only be carried out by qualified personnel.

During normal operation, fixed or movable guards must remain in their seats, properly fastened and in conditions of total integrity.

Should these protections be removed, for control and maintenance operations, it is mandatory to restore their efficiency before restarting the machine.

Also apply as reported in Chapter 4.1 ENVIRONMENTAL CONDITIONS.

2.1 ELECTRICAL EQUIPMENT

Operations of connection, commissioning, maintenance, measurements and adjustments of the electrical equipment or its components can only be carried out by qualified personnel. It should be remembered that the frequency converters create dangerous voltages for the health of persons. Before working on these devices, if they are installed, it is necessary to read the relevant documentation provided by the manufacturer of the device.

For work to be carried out with live parts, it is necessary to respect the laws in force.

Avoid cable bending and stretching that could break the wires.

3. PRESENTATION OF THE MACHINE

This machine is a dispenser of freshly brewed hot drinks prepared by mixing hot water with soluble products.

3.1 INTENDED USE

The machine is designed for professional use in a civilian environment with normal ambient conditions. The environment where the machine is used must be closed and covered, protected from the inclemency of the weather, and with the following characteristics:

- Temperature: +24/+32 °C;
- Max. relative humidity 45% (non-condensing); temperature/humidity values which exceed those mentioned above can seriously damage the components.

Accurate information about "**serial number** and **Model**" will allow the service to provide fast, accurate answers.

3.2 FORBIDDEN USES

Any other use of the machine or of the product being processed is considered misuse, not intended use, because the consequent risks cannot be evaluated. Therefore **the producer** is exempt from all responsibility deriving from failure to comply with these requirements.



The machine must be used only for the purposes expressly reported in the paragraphs above and as detailed below. In particular it is forbidden to use it in the following ways:

- With different energy and performance values.
- Without one or more guards intact and functioning.
- If not properly installed according to the instructions given in this manual.
- Use of machine surfaces such as walking surfaces or support surfaces for other bodies.
- Environments in explosive atmosphere.
- Use outdoors.

The equipment is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience or knowledge, unless they have been able to benefit, via a person responsible for their safety, of supervision or instruction concerning the use of the equipment. Children should be supervised to ensure that they do not play with the equipment.

3.3 MACHINE IDENTIFICATION DATA

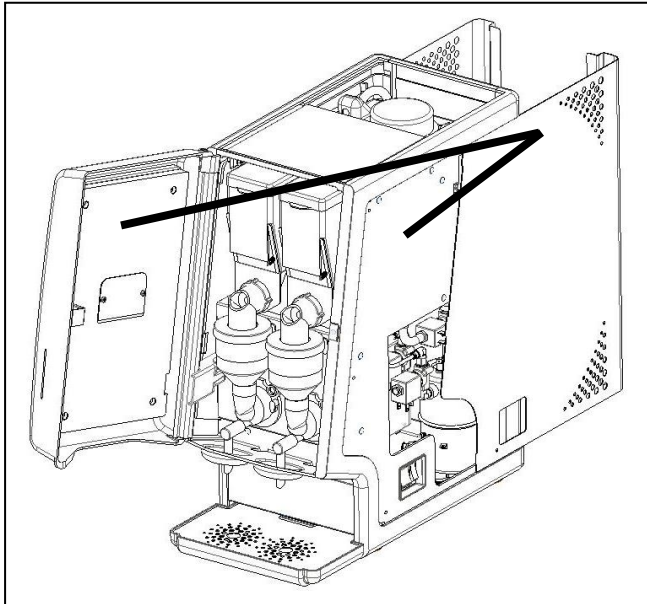
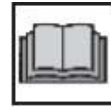
Machine identification data is reported on the specific **plate**.

4. TECHNICAL DATA

Each machine is equipped with an identification plate with the items shown in the following figure.

The data on the plate are printed indelibly or etched.

- For no reason the data shown on the plate can be altered.
- The mass is shown on the individual machines that make up the plant.



Note that all values and work data of the machine indicated in this user manual are meant as maximum values and can be achieved by the machine (in compliance with the specifications indicated in respect of each parameter) exclusively for short sessions of work. The machine cannot achieve these maximum work parameters continuously when it is operating. As normal for all machines, the one described into this manual should be selected and used referring to its average work parameters, it is not correct to select and use the Machine referring to its maximum performance parameters.

DETAILED TECHNICAL DATA

BASIC SPECIFICATIONS:

Power supply voltage	: 230 V and schuko civil socket
aux	: 18 V
Frequency	: 50 Hz
Max installed power	: 1300 W max.
Consumption (1h in standby)	: 0.020kWh
Consumption (12 40cc cups per hour):	0.098kWh
Weight of the structure	: 13 Kg
Height of the worktop/ ground	: on table



Do not deviate from the values or working limits described in the Technical Data in this manual and in the enclosed ones. Any other non designated use, as it does not conform to the design and technical specifications, is considered to be "NOT ALLOWED".

4.1 ENVIRONMENTAL CONDITIONS

The machine must operate only where there is no danger of explosion or fire as it is not realized in explosion-proof execution.



It is therefore forbidden to install and operate it in areas where there is a risk of explosion.

The workplace of the machine must have sufficient natural light and be equipped with adequate artificial lighting and aeration to safeguard the operator's safety and health. It is up to the user to evaluate the need for an adequate suction system to eliminate vapour and dust generated during the work process. The lighting of the premises must comply with the laws in force in the country where the machine is installed, ensure good visibility of the product and of every area of the equipment, avoid creating hazardous reflections and allow clear reading of the control panels as well as the detection of emergency buttons; therefore, an illumination value of at least 400 Lux/mt is expected.

Warning

The area defined as "Operator Zone" must be dry, clean and free of clutter.

4.2 VIBRATIONS

In operating conditions that are in accordance with the instructions for proper use, no vibrations are present.

4.3 ELECTROMAGNETIC ENVIRONMENT

The Machine is designed to operate properly in a civil electromagnetic environment, it is within the emission limits and is protected against induced disturbances.

4.4 NOISE

The sound emission levels of the Machine vary depending on the various phases of use; the tests carried out have shown that they never exceed 70dB.

5 MACHINE SAFETY DEVICES AND GUARDS

The safety devices and guards must not be tampered with. Before commissioning the machine, make sure that they work properly and are correctly positioned, verifying their efficiency.

5.1 DEFINITION OF MACHINE ZONES

WORK ZONE

These are zones within the frame, where the user and other operators have free access during normal operation. In these zones you can check the normal operation of the machine and/or quickly operate the push-buttons. In this case, the work areas correspond to the perimeter of the machine and the "command" positions, with the minimum spaces required for access by people and/or means.



Control station (about 20 cm around the machine) in front of the button panel and in the areas reserved to the operator.



Area reserved for qualified maintainers or Technical Service Centre The internal zones of the electrical cabinet and the machine are considered reserved areas; in these areas it is forbidden to operate (introducing limbs or other tools)



The following areas are considered hazardous areas with residual risk:

- the area inside the machine near the boiler. The danger is related to the boiler temperature ranging from 80°C to 100°C
- the product delivery area. The danger is related to the product temperature which is around 80°C
- For the maintainer there are minor cutting risks due to the presence of burrs (removable with the use of gloves, with no risk of trapping/crushing of upper limb fingers)

5.2 SAFETY SYSTEMS AND GUARDS

The machine is equipped with fixed and movable guards and protections designed to prevent contact with movable or dangerous internal parts (organs and materials).

5.2.1 POSITION OF GUARDS AND SAFETY DEVICES

GUARD

- fixed guards made of sheet that protect the inside of the machine are removable with tools only by a maintainer.

6 RESIDUAL RISKS AND LOCATION OF PICTOGRAMS

Points or areas of the machine that have residual hazards, feature safety adhesive pictograms (symbols) to draw the attention of the operators. This paragraph lists the remaining risk points even without the presence of pictogram.

	A DIVIETO "Proibito l'accesso al personale non autorizzato"
	D PERICOLO ELETTRICO
ATTENZIONE !! ATTENTION !! ACHTUNG !! CUIDADO !!	PERICOLO ELETTRICO "Solamente gli elettricisti possono aprire gli sportelli ed eseguire manovre o regolazioni".
	E DIVIETO "Divieto di utilizzare acqua per spegnimento di un principio di incendio".
 	H NOTA AVVERTENZA "Leggere attentamente il manuale prima di utilizzare la macchina".
	F Pericolo temperature elevate In prossimità dei punti ove posizionato il presente pittogramma possono essere presenti temperature oltre i 60°C



Warning plates and pictograms that perform safety functions must not be removed, covered or damaged. If they are worn out or are removed, it is necessary to restore their position by applying a new one.

● **PICTOGRAM A PROHIBITION - ACCESS PROHIBITED TO NON-AUTHORIZED PERSONNEL**

During routine or corrective maintenance operations, the maintainer shall always restore any guard removed for tasks of maintenance or replacement of mechanical parts.

Prohibitions:

During operation and/or when the machine is under electric voltage, it is forbidden:

- introducing hands, or other parts of the body, into the hazardous area (work area);
- performing operations not related to the production process and which have not been expressly authorized by the department manager.

● **PICTOGRAM D - ELECTRICAL DANGER**

"Only electrical and/or mechanical maintainers can remove guards and perform manoeuvres or adjustments inside the machine"

Prohibitions:

When the machine is under voltage do not insert your hands or any part of the body inside the electrical panel.

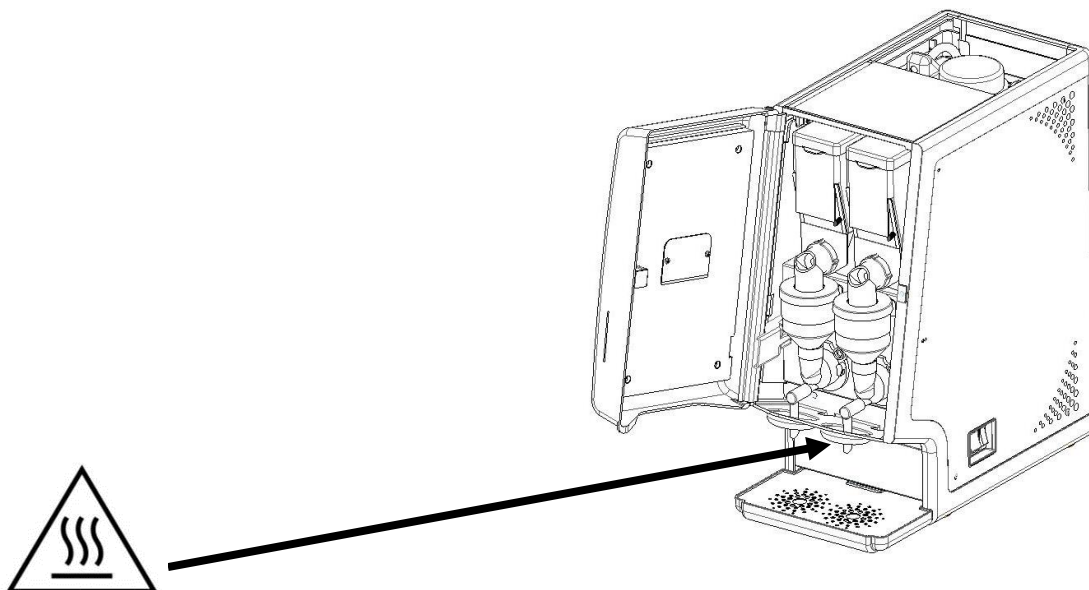
Caution: before working inside the main electrical panel, turn off the main switch of the panel

● **PICTOGRAM E- PROHIBITION TO USE WATER IN CASE OF FIRE**

In case of fire, remove the plug if possible and/or cover with heavy natural fibre blanket to smother the flame

● **PICTOGRAM H - WARNING - READ THE MANUAL**

● **PICTOGRAM F – HIGH TEMPERATURE RISK**



7. UNPACKING, TRANSPORTATION & STORAGE

Various types of packaging are provided for machine transportation.

THE PERSONS IN CHARGE OF THESE OPERATIONS MUST WEAR THE FOLLOWING PERSONAL PROTECTION DEVICES



- Operations related to unloading from the means of transport and unpacking must be performed by qualified personnel or by the user;
- Lifting and transport means must be chosen according to the dimensions, weights, shape of the machine and its components. The capacity of the lifting means must exceed (with a margin of safety) the weight of the components to be transported; **the producer** is not liable for damages caused by incorrect operation by unqualified personnel or use of unsuitable means;
- **Lifting must be performed continuously, with no jerking or sudden movements and only on designated points;**
- **It is forbidden to move and stay under suspended loads;**
- The handling of a single machine can be performed manually using as grip points the bottom of the packaging. The handling of the packaging must be carried out as indicated on the packaging itself.



During handling, nobody must be inside the manoeuvring area, the entire surrounding area is to be considered a danger zone. It is the responsibility of the person in charge of handling to check the stability of the load before lifting and handling.

- Before handling the parts, make sure that no part is loose, imbalanced and at risk of falling. Upon receipt of the supply, make sure that the components have not been damaged during transport

7.1 UNPACKING AND CHECKING THE CONTENTS



Upon receipt of the supply, make sure that the components have not been damaged during transport and that the package has not been tampered with, resulting in removal of parts inside. Should you note the presence of any damage, you must report it to the driver of the means of transport and immediately notify **the producer**.

Store the packaging so as not to present a risk of fire or deliver them to specialized waste collection centres (do not introduce them in the standard municipal waste containers).

7.2 LIFTING

Lifting and transport of the machine must be done carefully to avoid falling or overturning. In the case of a pallet, for lifting you can use a fork truck of adequate capacity. Taking into account the symmetry of the structure, the centre of gravity can be easily determined and, therefore, it is easy to define the placement of the lifting forks in respect of the same. Weight of the packaged machine: kg. 15.

7.3 STORAGE

If the machine is not installed quickly and must be stored for an extended period, it is recommended to keep the components in their original packaging, in a sheltered environment, appropriate to the level of protection required.

Check that the characteristics of the environment are:

- Temperature: +2/+45 °C;
- Relative humidity 45% (non-condensing);
- Indoor environment, sheltered from the weather. Temperature/humidity values which exceed those mentioned above can seriously damage the components.
- Make sure that the support surface of the machine is able to support it.
- Do not put on the machine boxes, crates or heavy equipment.
- Do not place the machine near flammable materials.
- We recommend that you always place platforms in wood or other materials between the floor and the components, in order to avoid direct contact with the floor;

8. COMMISSIONING AND OPERATION

8.1 RESPONSIBILITIES OF THE USER

- The customer must provide suitable premises according to the requirements of the equipment, with the spaces necessary for safety in the workplace, in particular the space necessary for use and maintenance as indicated by the manufacturer;
- The provision of the electrical systems, up to the power supply points of the machine. The electrical system shall be provided with adequate grounding and residual current devices and/or safety valves upstream of the machine;
- The provision of auxiliary services suitable to the needs of the machine;
- Tools and consumables required for assembly and installation;
- Verification of the training of the operators in charge of use and maintenance and their qualification;

Fire extinguishers suitable for use on electrical equipment (dry powder or CO₂ fire extinguishers within 25m) must be made available and used in the event of a fire. The user shall also provide the area around the machine with the required horizontal and vertical signage and ensure the escape routes for the operator in case of worsening of the emergency situation. Provide for machine shutdown by means of the emergency button, and the cut-out switch to disconnect it from the power supply.



- **Verify with the appropriate instruments the conformity of the distribution and grounding line.**



- **Avoid operating on machine parts adjusted and/or preset at the time of testing.**



- **Any technical modifications affecting the operation and/or safety of the machine must only be carried out by authorized technicians. Otherwise, we accept no liability for changes or damages that might result.**

8.2 MACHINE LEVELLING

It is important that the surface on which you place the machine is level to avoid vibration or displacement while working.

8.3 ELECTRICAL CONNECTION



ALL THE OPERATIONS OF CONNECTION TO THE POWER GRID SHALL BE CARRIED OUT WITH VOLTAGE-FREE POWER SUPPLY LINE, BY QUALIFIED PERSONNEL EXPLICITLY AUTHORIZED AND ALWAYS IN FULL COMPLIANCE WITH THE REGULATIONS IN FORCE.

- Check that the data reported on the identification plate inherent to the power supply voltage corresponds to that used at the installation site.
- Refer to the electrical diagram which specifies all the specifications for the correct supply of the electric panel.
- In all electric panels, it is essential a grounding of appropriate section for the protection of the operator from accidental contact of metal parts of the machine with the conductors or parts under voltage.
- The sizing of the cables used to provide electricity must be sufficient and the insulation must be suitable for the temperature and voltage requirements of the equipment.
- For the sizing, refer to the maximum power required in the general specifications of the machine.
- To avoid the risk of fire, only use fuses of suitable type and exact tension and voltage.

For proper use, the machine must be connected to a power line. A specific 6A switch is provided in order not to act on the residual current detector (protection provided) and not to remove the power supply to the room.

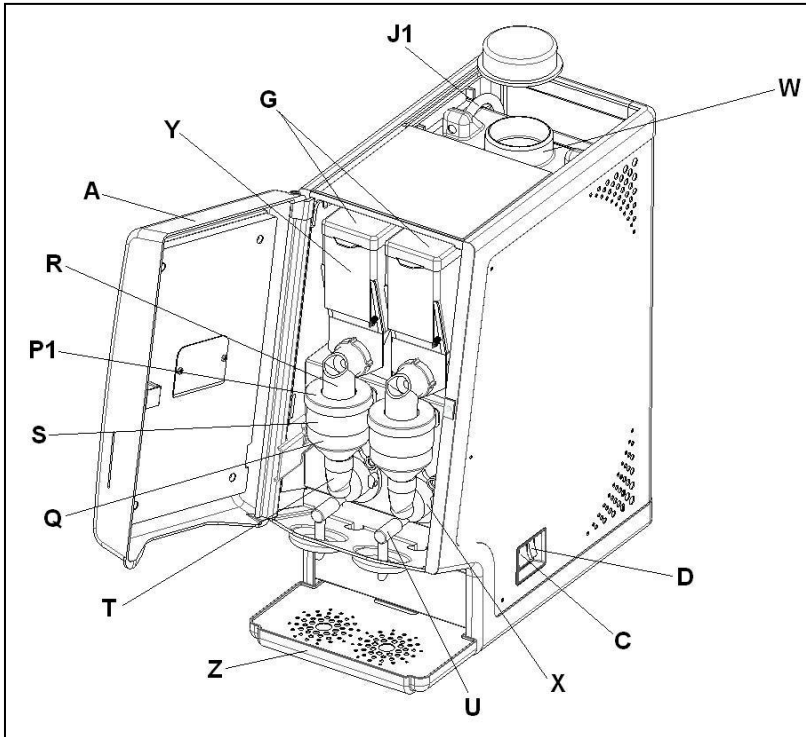
To connect the machine to the mains supply, simply open the electric panel and connect the cables



ALL ELECTRICAL CONNECTIONS MUST BE PERFORMED WITH VOLTAGE-FREE POWER SUPPLY LINE.

8.4 DESCRIPTION OF THE MACHINE

The following image shows the main components of the machine; afterwards it is described the operation of the machine using the controls on the button panel.



N rinsing button

G = dust container cover	Z = drain pan
A = door	C = main switch
P1 = splash cover	D = water filling button
R = outlet connection	Y = dust container
S = mixer top	W = water tank
Q = funnel	J 1 = water draught tube with filter installed
T = mixing chamber	X = mixing chamber support
U = product outlet spout	

8.5 FIRST INSTALLATION AND DAILY STARTUP OPERATIONS

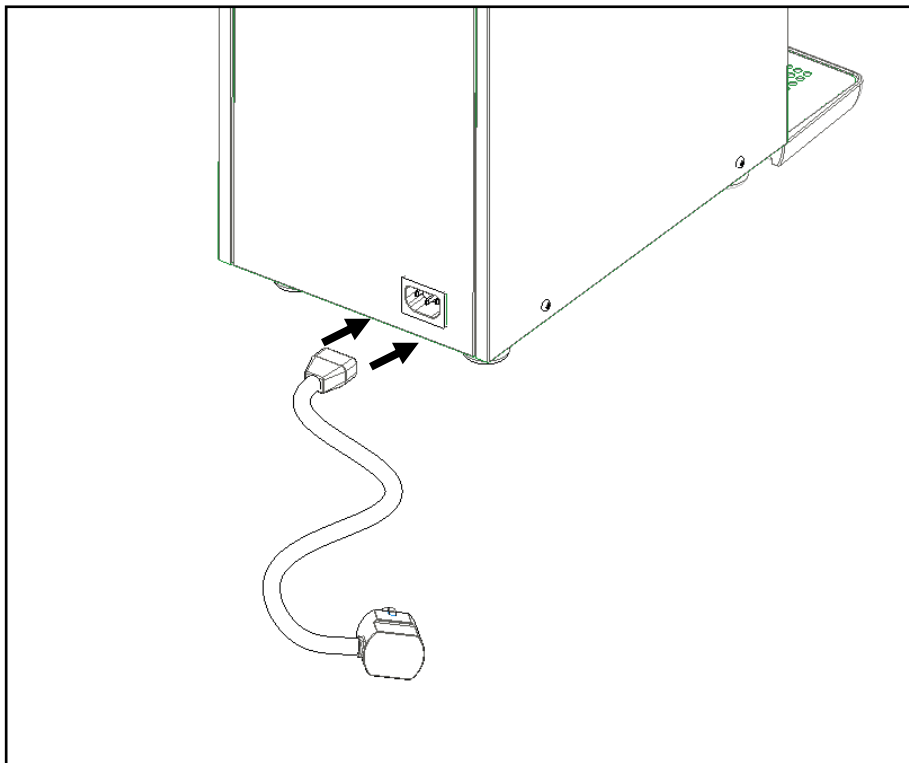
Before inserting the plug into the socket, it is necessary for your safety to take careful note of the following precautions:

- The electrical safety of this equipment is guaranteed only if it is correctly connected to an efficient earthing system, executed in compliance with the applicable electrical safety standards. The manufacturer cannot be held liable for any damage caused by failure of grounding the system.
- It is essential, for proper and safe installation, to provide a socket controlled by a thermal magnetic circuit breaker with a contact opening distance equal to or greater than 3 mm, conforming to the applicable national safety standards.
- Make sure the power cord, along its entire length, is not crushed in any way. Do not use extension cords. To remove the plug from the socket, grip the plug gently, after switching off the system.

Important

IF THE SUPPLY CORD IS DAMAGED, IT MUST BE REPLACED ONLY BY QUALIFIED PERSONNEL, IN ORDER TO AVOID ANY RISKS.

Once all these precautions have been implemented, you can connect the power cord to the machine, insert the plug into the socket and proceed to the first installation.



First installation

- a) Open the door A.
- b) Slide the cover B toward the front of the machine.
- c) Remove the cap E and fill the tank with water.



ATTENTION

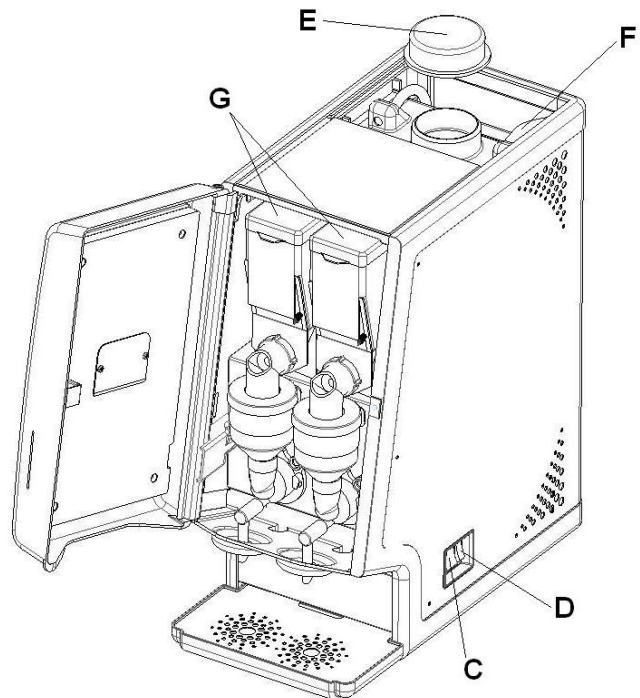
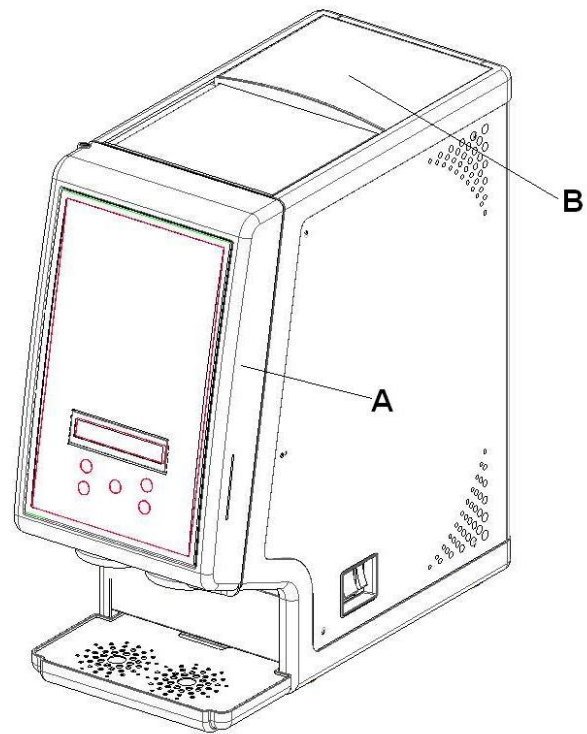
Use only purified water to avoid damaging the water distribution circuit.



ATTENTION

It is strictly forbidden to introduce into the tank any product other than drinkable water

- d) Before introducing the product in the relevant containers, make sure that:
 - the product is suitable for automatic distribution;
 - the packaging is intact and not expired;
 - the product does not contain lumps.
- e) Remove the product containers G and remove the cover.
- f) Fill the containers with product and reposition them in their seats.
- g) Turn on the main switch C after connecting the Schuko plug to the power socket.
- h) Press and hold the button D until tube F is filled with water (pump operation noise can be heard).
- i) Perform a wash cycle by pressing button n as prompted on the display;
- j) The machine is ready to dispense the product.



Daily startup

1. Press the main switch C after you have verified that the schuko plug is connected to the wall socket;
2. Press button D until water exits from pipe F (pump operation noise can be heard);
3. Perform a wash cycle by pressing button n as prompted on the display;
4. The machine is ready to dispense the product.

8.6 OPERATION

CONTROLS

When the machine is operating, place the cup on the specific delivery point and press the desired beverage.

h = right head product small cup
i = right head product big cup
l = left head product small cup
m = left head product big cup
n = wash

Remove the cup only when the cycle is finished.

Immediately after power up it is necessary, as prompted on the display, to perform a wash for each mixing chamber.

If the display shows **WARMING UP** you must wait a few seconds so that the boiler brings the water to the right temperature.

If **WASH STOP** appears on the display, it is necessary to perform the chamber wash by pressing the button "n".

The machine must be filled with water only when **NO WATER** is displayed.



If, by selecting the desired drink, the display shows **MOTOR STOP** you must carry out the cleaning operations as described in the next chapter. If the problem persists, contact the service centre.

When, powering up, **CHANGE FILTER** is displayed, that means that the internal scale filter needs to be replaced.



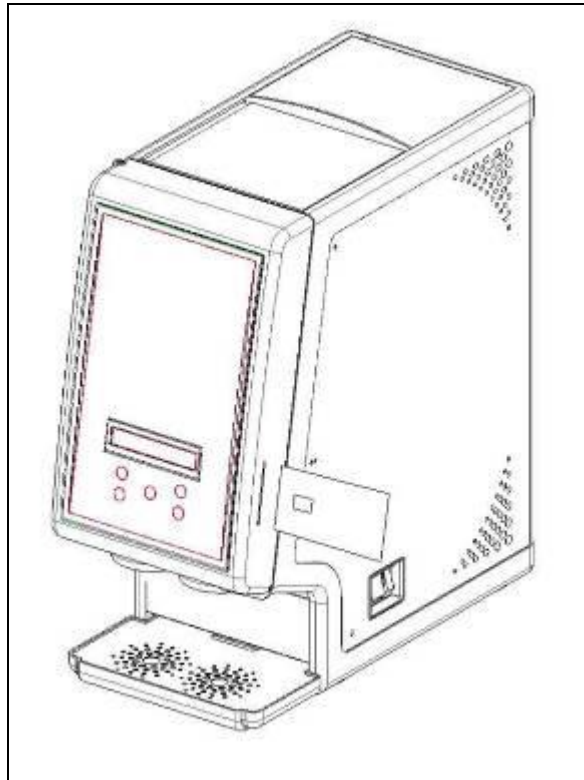
Whenever you need to add water to the tank, only use purified water to avoid damaging the water distribution circuit.

It is strictly forbidden to introduce any product other than drinking water in the tank of the machine; different products may compromise the functionality of the internal filter and alter the quality and drinkability of filtered water, in which case the company declines any responsibility for possible damage to the health of the consumer.



WE RECOMMEND TO FREQUENTLY RINSE THE MIXING CHAMBER BY PRESSING THE n BUTTON TO AVOID STATIONARY DEPOSITS OF PRODUCT INSIDE THE MIXING CHAMBER.

In the versions equipped with chip cards, parameter setting and credit charging are performed by inserting the chip card as shown in the figure (the micro chip must be facing the front of the machine and therefore visible to the user).






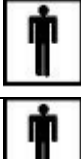
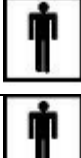

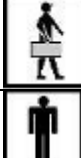


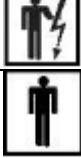
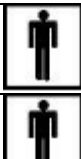
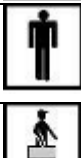



Caution!!!

Risk of burns!!!

To prevent the operator from burning his hand during beverage brewing, it is mandatory to always place the cup/jug on the specific brewing point.

Never hold the cup with your hand while the machine is brewing.

8.8 FAILURE ANALYSIS

ISSUE	CAUSE	SOLUTION	
The brewed product is cold	The resistance won't heat up	Contact the support service to check for the correct electrical and possible boiler replacement	
The product is not mixed properly	The blender motor does not work	Fuse replacement, if the problem persists replace the gear motor	
	Incorrect dosing parameters	Contact service for setup	
	Powder container outlet obstructed (at irregular intervals)	Clean powder container outlet.	
	Powder container outlet obstructed (frequently)	Clean powder container outlet and check the suction fan operation	
The machine does not brew the product	Main switch off	Press the main switch	
	Credits used up	Contact service to load credits	
	Water used up	Fill the tank with water using the special filter	
	Solenoid valves out of service	Contact service for replacement	
	Mixing chamber outlet obstructed	Disassemble the mixer unit and wash it following the instructions	
The machine dispenses only water	The soluble product is used up	Fill the containers with soluble product	
	Container auger obstructed	Thoroughly wash the container and assemble according to the instructions	
	Powder gearmotor out of service	Contact service for replacement	
The machine does not take in water	Pump out of service	Contact service for replacement	
	Water load button out of service	Contact service for replacement	

9. MAINTENANCE



9.1 MAINTENANCE OPERATIONS

The following table lists the mechanical components on which it is necessary to carry out periodical maintenance. The indications relating to the specific point of intervention are outlined in the next paragraph. To indicate the **type of operation** to be carried out on the various **components** it is adopted a system of cross references with the following symbols:



Identifies a visual check on the **wear** or the **proper functioning** of a component.



Identifies a **cleaning** operation of a component or on the machine.



Identifies a mechanical task (**general regulations, repairs, replacements**) to be carried out on the component.



Identifies a mechanical task (**tightening**) to be carried out on the component.

Remember that the conditions of temperature and functioning of various organs (even if studied and amply dimensioned) are heavy and sometimes it is appropriate to intervene by anticipating the time intervals if the operational and environmental conditions are such as to induce the decrease of the intervals reported in the following table in working hours (h) (which correspond to European standards).

In particular we recommend to perform a comprehensive maintenance whenever the production must be suspended for an extended period of time.

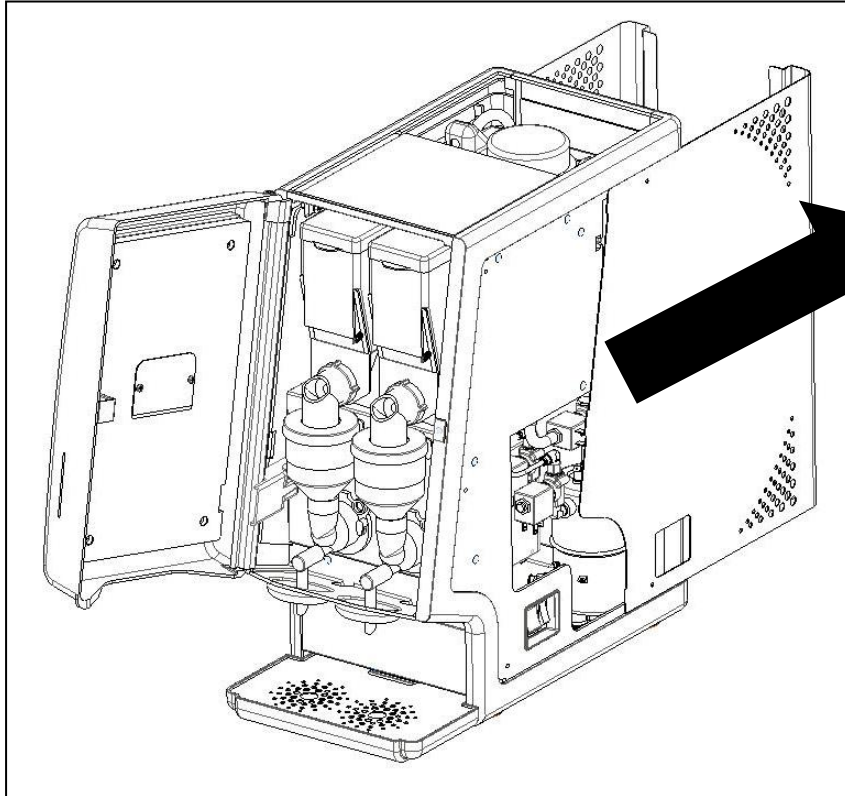
This concerns critical components (for heavy use or particularly stressed) that if not properly identified and/or maintained (with specific instructions) cause serious malfunctions for the component or product.

Component	Symbol	Steps to be performed	Tools to be used	Intervention frequency
Water tank		Thorough wash	NA	Weekly
Filter		Thorough wash	NA	Whenever it is obstructed
Built-in anti-scale filter		Replacement	NA	After about 900 litres delivered (14500 60 ml cups)
Powder tank		Thorough wash	NA	Monthly
Mixing chambers		Thorough wash	NA	Daily



Before carrying out any maintenance operation, it is mandatory to switch off the machine and unplug the power cord from the mains by removing the Schuko plug from the same.

Side removal



In order to remove the right side of the machine, proceed as follows:

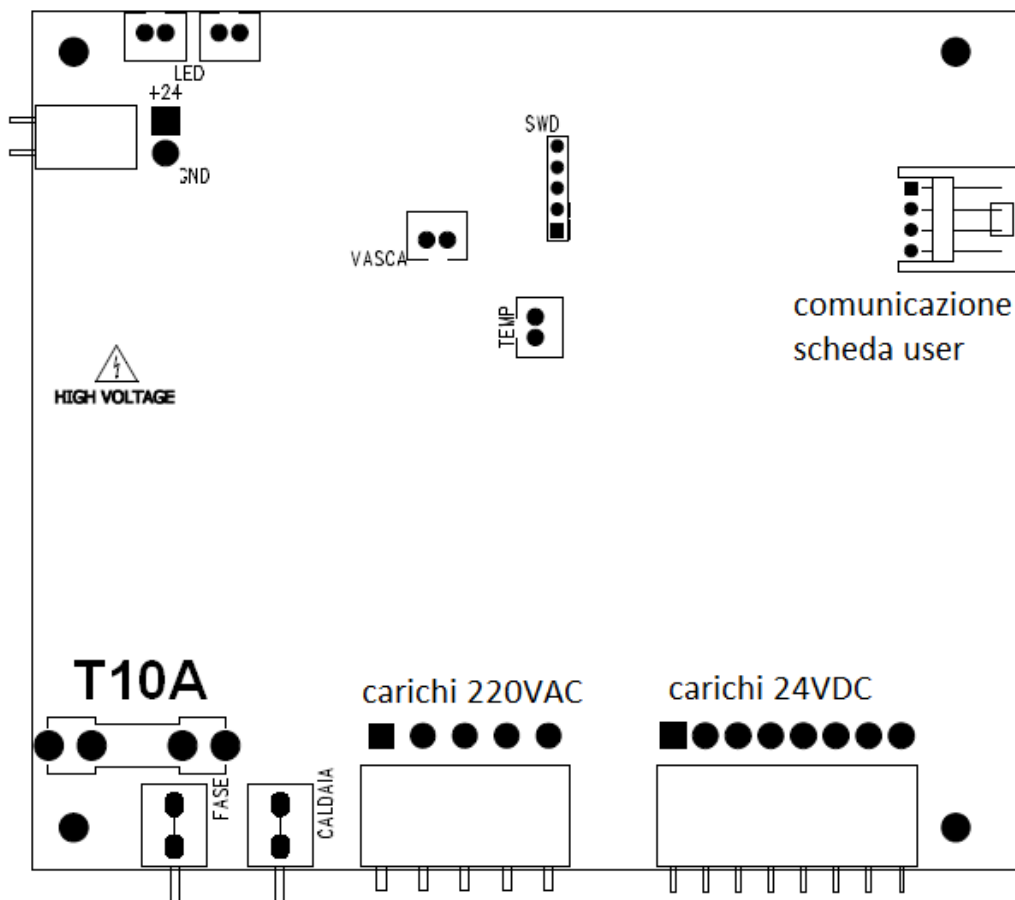
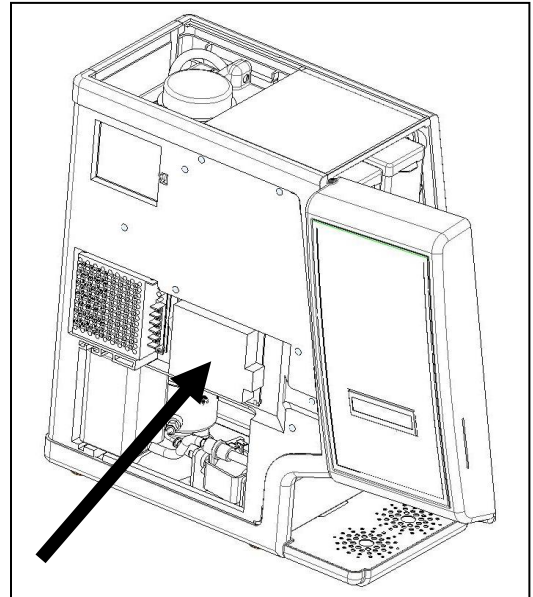
- Remove the screws at the rear of the side panel.
- Remove the panel by sliding it toward the rear of the machine as shown in the figure.
- The only source of residual energy in the machine is the boiler as it retains thermal inertia even if there is no power. Therefore care must be taken as there is a risk of burning. Wear heat resistant gloves.

If instead of removing the left side you have to remove the right side, the procedure is the same.

Fuse replacement

If a fuse blows out (due for example to lack of periodic cleaning of the mixing chamber), it can be easily replaced.

- Clean the mixing chamber as preventive operation.
- Disconnect the power plug from the wall socket and remove it from the machine.
- Remove the left side panel as described above so that you can access the electronic card shown in the figure.
- Replace the damaged fuse with a new 10 Ampere time lag fuse of the same type (T10A).
- There are three fuses as shown in the figure below.
- Close the side and reconnect the equipment to the mains supply.



Replacement of built-in anti-scale filter

CHARACTERISTICS

The internal filter supplied with the machine, through gravitational fall, when crossed by water, holds the ionic part of calcium and magnesium contained in it, preventing the formation of limestone for a duration of approximately 900 litres of water after which the filter should be replaced.

In terms of dispensed beverages this means approximately 14500 60ml cups.

Since every material used is certified for contact with substances for food use and the production processes used do not involve the addition of any other substance, nor external contamination, it is guaranteed the absolute food grade compliance of the entire product.

CAUTION!!!

The filter is designed to be used exclusively with purified water treated by the municipal authorities (which guarantee its potability) or with water coming from private supply systems whose potability has been certified.

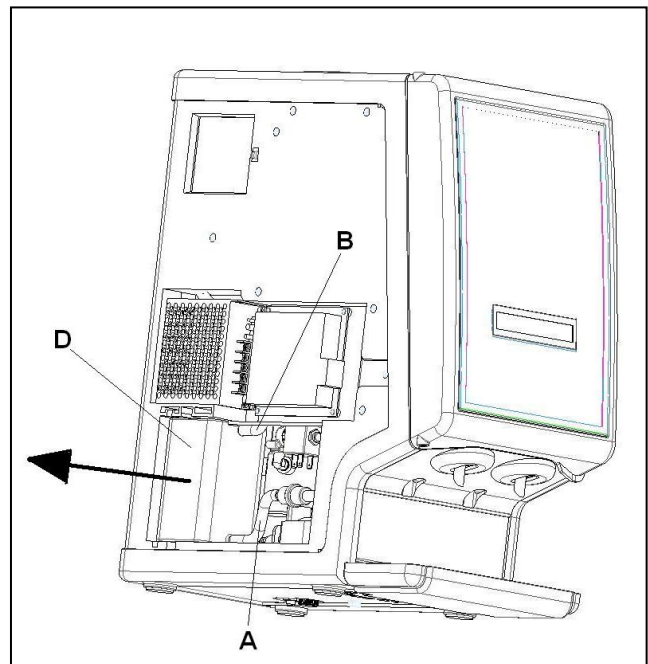
CAUTION!!!

It is strictly forbidden to introduce any product other than drinking water in the tank of the machine; different products may compromise the functionality of the internal filter and alter the quality and drinkability of filtered water.

REPLACEMENT

When the filter is no longer effective, it is necessary to provide for its replacement.

- Turn the machine off and disconnect the power cord;
- Remove the left side repeating the same operations described above;
- Remove the upper connection tubes B and the lower connection tube A;
- Remove the filter D to be replaced from its housing by sliding it toward the outside as indicated by the arrow;
- Insert the new filter so that both locking pins are inserted in their guides;
- Reconnect the two tubes being careful that the one with the filter A mate with the lower outlet of the filter;
- Close the panel, the machine is ready to be used



Storage

To protect the machine during periods of inactivity, it is important to store it correctly as described below:

- Disconnect the machine from any source of energy.
- Remove, wash and sanitize all the parts in contact with the product as described in chapter 8.7.
- Also clean the outer panels.
- Reassemble carefully all parts.
- Cover the machine completely assembled with the original packaging so that it is protected from dust and other contaminants.
- Place the machine in a dry place.

Product Storage

Since the preservation of the product used depends on the temperature and the duration of storage, it is absolutely necessary to refer to the instructions and specifications of the manufacturer so as to avoid risks to health due to the deterioration of the product caused by incorrect maintenance conditions.

10. UNINSTALL - DISPOSAL

UNINSTALL

Once the working life of the machine is over, it is necessary to proceed with uninstall and disassembly.

ALL THE OPERATIONS OF DISASSEMBLY OF THE MACHINE MUST BE PERFORMED BY QUALIFIED PERSONNEL AND IN COMPLIANCE WITH THE SAFETY RULES. When disassembling, it is necessary to assess the RESIDUAL RISKS indicated below and other initially unforeseeable risks:

- CRUSHING between handled or removed parts;
- FALL OF MATERIALS from above or not securely supported;
- CUTS from sharp edges or unprotected plates;
- ABRASION/BURNS from contact with rough parts or chemicals.

Therefore IT IS IMPERATIVE that during the removal phase, the following personal protective equipment is worn:



DISPOSAL

Dismantling and disposal of the system can be carried out by the user according to the following procedures:

- Fence the danger zone for the entire duration of the dismantling and lifting of the machine, prohibiting the presence of unauthorized persons.
- Switch off the electrical power using the general switch and cut off the energies in the points provided.
- Remove scraps or waste which can obstruct the area of operations and recover waste aboard the machine.

Equip with tools and means suitable for:

- hooking the machine, using only the lifting devices (eyebolts) provided by the manufacturer and checking that the load is balanced;
- carrying out lifting operations as reported in paragraph 7. After disassembly, the components of the machine must be sorted according the different materials; subsequently dispose of the materials at AUTHORISED BODIES, in full respect of the rules in force concerning waste.



The equipment is provided with the above recycle symbol. This indicates that once the lifecycle of the equipment is over, it will be necessary to dispose of it at the appropriate point of differentiated collection and not in the normal waste. This respects the environment and is an advantage for all (in EU only).

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