



MONO JET *α β*

Instruction Manual

GB



The original version of the instruction manual is in Italian.

Manuals written in other languages are translations of the original manual.

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GENERAL RUNNING DATA

Model	Mono Jet α, β	
Rated voltage	230 V $\sim$	
Rated frequency	50 Hz	
Rated current	3,1 A	
Protection against electric shock	Class I	
Operating conditions	continuous operation	
Degree of protection against ingress of liquids	ordinary	
Degree of protection against direct or indirect contacts	Type B	

$\sim$	Alternating current	IEC 417-5032
$\oplus$	Protective earth (ground)	IEC 417-5019
$\uparrow$	Apparatus type: B	IEC 878-02-02
$\bigcirc$	Off	IEC 417-5008
I	On	IEC 417-5007

This appliance cannot work in the presence of an anaesthetic mixture inflammable with air, of oxygen or of nitrogen protoxide.

Thermal motor protector.

Power output: 0.4 kW.

Maximum flow: 1250 l/min.

Maximum operating head for continuous service: 1300 mm H₂O.

Sound pressure level 59 dB(A) *.

Other available tensions:

220 V $\sim$ 60 Hz 3,5 A

120 V $\sim$ 60 Hz 6,0 A

110 V $\sim$ 60 Hz 7,0 A

100 V $\sim$ 60 Hz 7,0 A

Manufactured by CATTANI S.P.A. - PARMA - ITALY

* Sound pressure level tested (with canalised air) according to ISO 3746-1979 (E) regulation. Parameters: r or d = 1.5 - background noise < 59 dB(A) - instruments: Brüel & Kjær Type 2232.

SIGNALS AND WARNINGS

GENERAL FEATURES

SIGNALS AND WARNINGS



Please read through the manual before installation



Biological danger, danger of infections from epidemic diseases



High temperature



General danger sign



Compulsory direction of flow or rotation

Signals cannot always fully express danger warnings and the instructions deemed compulsory, therefore it is necessary that the user reads the warnings and keeps them in due consideration.

Failure to respect a danger signal or warning may harm operator or damage the equipment. Do not remove protections, do not tamper with machines or their operation.

GENERAL FEATURES

Mono Jet is the aspirator designed to be coupled to the dental unit; it is wieldy, noiseless and has been manufactured for continuous service.

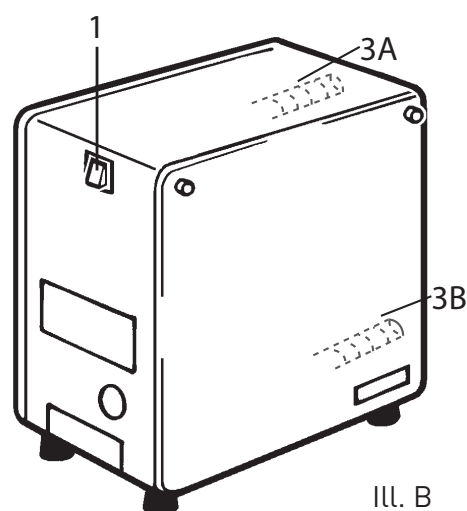
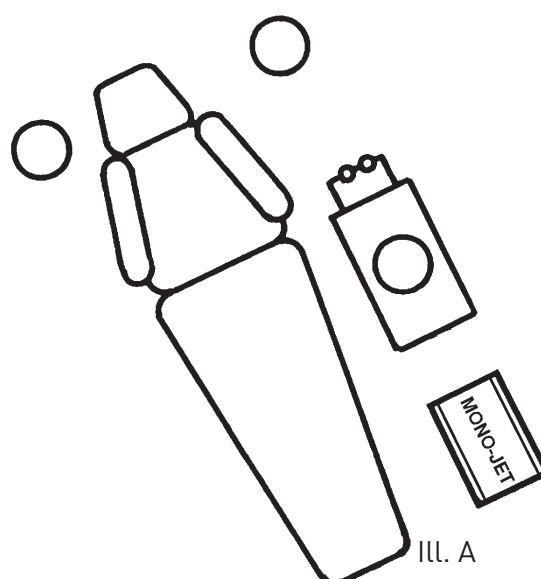
Special versions:

- Mono Jet α and β : differ only in the outside box.

INSTALLATION

INSTALLATION

The best position for the Mono Jet is near the dental unit, precisely on the left of the chair, close to the patient's feet (ill. A). The 3b tube-holder must be connected to an independent drainage fitted with a siphon to prevent any return of liquids from any upper drainage, as spittoon bowl and sinks, and to prevent sewer gas fumes. The 3A tube-holder (ill. B) must be connected the tip support. The aspirator must be installed in compliance with CEI regulations concerning electromedical appliances. Before connecting the aspirator to the mains consult the ratings and ascertain that the mains are suitable for a proper and regular working of the appliance and that are protected from short-circuits and overloads as from CEI 64-4 regulation; the appliance must be installed in compliance with CEI 64-4 (relevant to appliances installed in medical rooms); IEC correspondent references are available on request for class I appliances. The supply cable of the aspirator is provided of protection cable for earthing; this protection must not be removed for any reason and must fit perfectly in the supply plug. When the installation has been completed, the unit can be switched on by the main switch. When the switch 1 is in ON position (ill. B), it lights up; lifting one of the terminals from its seat will start the aspiration. We recommend to use the brand-new, non contaminated appliance to train the surgery staff about the use and standard maintenance operations. Opening of the door of the cabinet interrupts the circuit and the aspirator stops. On normal assembly the aspirated air is exhausted through the silencer 2 (ill. C). Simply connect a pipe from the motor outlet to an outside tube 3C preferably passing through the bacterial filter with active carbons 4 (ill. C), to convey the air outside: bacteria and most of the noise will be carried outside together with air.



OPERATION AND USE

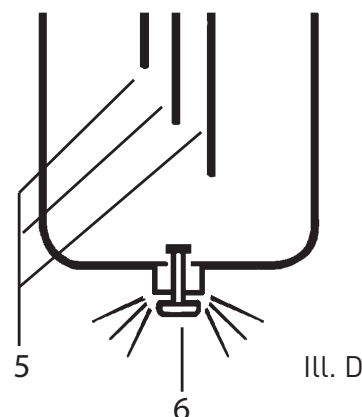
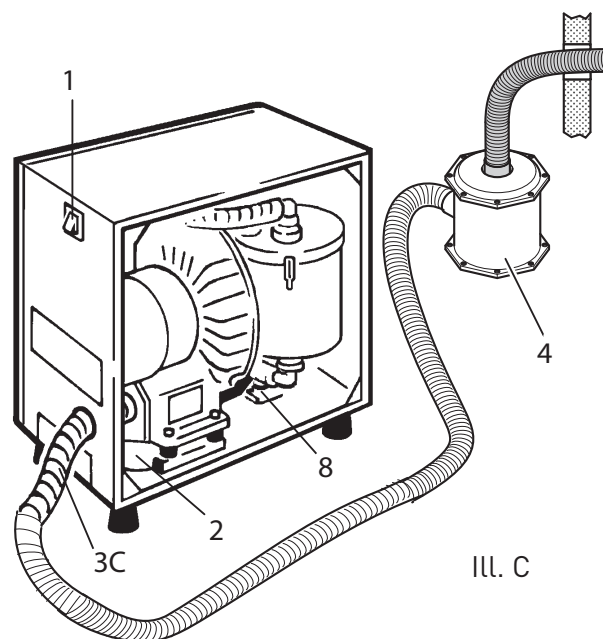
OPERATION AND USE

Through the tip and the lifted hose, liquids and aspirated air get to the manifold 4 (ill. L) and from there to the canister through pipe 3A (ill. B). In the canister liquids are separated from air: the air goes to the motor through pipe 3B (ill. B) and is then exhausted; on request a certified bacteriological filter is available to filter the exhausted air (ill. C pag. 4). Liquids, heavier than air, are collected on the bottom of the canister. Draining is automatic: the valve 6 (ill. D), placed on the bottom of the canister, is kept closed by depression when the aspirator is working; when all terminals are replaced on the tip support, the aspiration stops and liquids are drained from the canister (ill. D). If the canister fills up during an operation, probes 5 (ill. D) will sense the maximum level at about 3/4 of the canister with the shortest probe; the electrical circuit will open and stop the aspiration automatically; the draining valve 6 will open automatically and the draining pump 8 (ill. C) will start: within few seconds the canister will be emptied and the aspiration can restart automatically.

Blood, mucus and disinfectants can easily form foams that interfere with probes and interrupt suction.

Therefore we recommend using antifoaming tablets. If any running anomaly (block of the cooling system, breakdowns ecc.) causes an overheating of the motors (i.e. temperature rises above 120 °C in the Uni Jet 75 - aspiration unit - and above 90 °C in the draining pump 8), thermal protectors with prefixed temperature value will open the circuits and reset them automatically as soon as the windings get back to normal temperature.

Obviously the causes of the interruption should be ascertained and rectified.



GENERAL RECOMMENDATIONS AND BIOLOGICAL HAZARD

MAINTENANCE AND CLEANING

GENERAL RECOMMENDATIONS AND BIOLOGICAL HAZARD

- Danger of electric shocks: also 230 V $\sim$ can be lethal.
- Biological danger, danger of infections from epidemic diseases.



Before any operation on used appliances, clean them several times with Puli-Jet plus 2.0 disinfecting detergent or other adequate product and wait till the disinfection has been carried out.

Cut off the appliance from the power mains and lock the general switch, if provided.

For any maintenance operation wear gloves, goggles, mask, and disposable overall. The aspirated liquid is infectious and can spread infective diseases. In the Mono Jet α and β (ill. C, det. 8) the pump puts the aspirated fluid under pressure; for that reason,

the biological hazard increases if there is a pipe break, or a failure of the appliances under pressure.

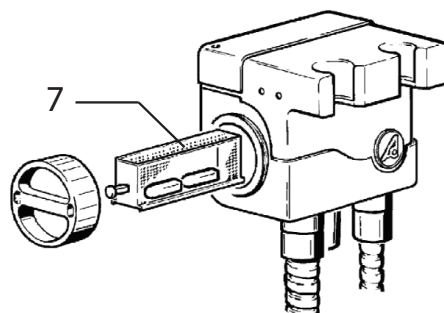


ILL. E

MAINTENANCE AND CLEANING

Before operating on the appliance, read the chapter "Signals and warnings" and "General notes and biological hazard".

Because solid particles are aspirated together with liquids, restraining filters are fitted to assure a proper running. The Mini-Separator requires the filter 7 on the tip support (ill. F); the Mono Jet fitted with Maxi-Canister has also a second filter 9 on the cover (ill. G). Filters must be cleaned daily. To reach the filter 7 the appliance must be switched on for some seconds with open terminals, aspirating air only so that hoses and manifold dry completely inside; then cut off the power and pull out the filter. To inspect the filter 9 lift up the pipe-holder sleeve 10 (ill. G).



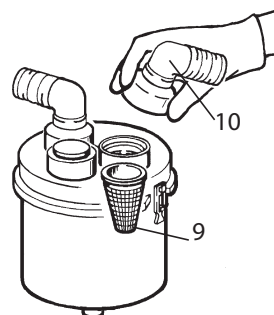
ILL. F

The Maxi-Canister must be removed every week and cleaned with a jet of clear running water; at the same time, the canister must be cleaned inside with a sponge as well as the lid and the overflow control probes. Every evening, after cleaning the filters, it is very important that a solution of Puli-Jet plus 2.0 and warm water is aspirated; follow the instructions on the bottle label to prepare the solution.

This cleaning and disinfecting aspiration must be carried out by means of Pulse Cleaner (ill. H). Pulse Cleaner creates the necessary turbulence for a complete cleansing.

Insert the disinfectant antifoam tablets in the aspirator that has been previously cleaned and disinfected. The day after, at the resumption of work, passing through the filter, the aspirated liquid will catch some particles of detergent-disinfectant and antifoam for the continuous control of bacterial plaque.

We strongly recommend avoiding the use of detergents, even with reduced foams, since turbulence and flow of aspirated air increase enormously the quantity of foams, causing interruptions, damage to the aspirator and in time also bad smells. Detergents damage aspirators, hypochlorite destroys them.



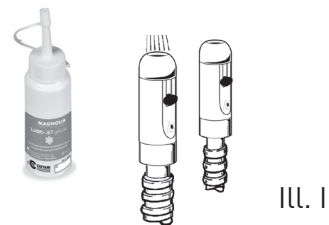
ILL. G



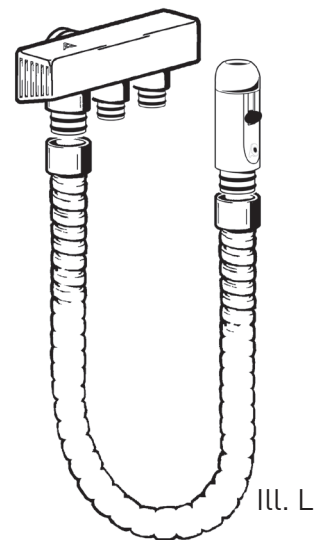
ILL. H

O-rings (seals) and the slides for the closure of terminals (ill. I) must be lubricated with Lubri-Jet every 15 working days.

It is important to replace all flexible tubes once a year (ill. L): in particular, the external hose and terminals (ill. L) must be disinfected for each patient and replaced every three months for hygienic and operational reasons.



ill. I



ill. L

ROUTINE MAINTENANCE

EXTRAORDINARY MAINTENANCE

SUMMARY OF MAIN CLEANING AND ROUTINE MAINTENANCE OPERATIONS TO BE ENTRUSTED TO PURPOSELY TRAINED SURGERY STAFF

- After every surgical operation or very long treatment: rinse the appliance by aspirating water, preferably warm and Puli-Jet plus 2.0. Replace and disinfect external tubes and terminals.
- After every working day: clean the filters; clean the equipment with warm water and Puli-Jet plus 2.0. Insert the disinfectant antifoam tablets in the

filter.

- Every 15 days: clean the canister, the draining valve and probes; lubricate O-rings and slides closing terminals with Lubri-Jet.

EXTRAORDINARY MAINTENANCE OPERATIONS TO BE ENTRUSTED TO TRAINED SERVICE ENGINEERS, PROVIDED WITH ORIGINAL SPARE PARTS

- Periodical checks: the service engineer shall check up all relays, functioning of probes and draining pump, siphons and waste outlets, all internal pipes, and plastic and rubber components subject to ageing; hoses and seals should be replaced once a year. The appliance must be tested periodically from the current safety regulations point of view. Shortcircuit probes: make sure that suction stops and that the drainage pump starts operating.

- The manufacturer is at your disposal to supply spare parts, literature, instructions and anything that might be useful.

Our concessionaires, agents, authorised retailers and service engineers are provided with split-up

drawings, electrical diagrams, instructions and updating about maintenance and service.

- The appliance is guaranteed for a year from the date of sale provided that the guarantee card addressed to the manufacturer is returned with date of sale, retailer's stamp and customer's name.

IMPORTANT NOTICE

TRANSPORT AND STORAGE

TRANSPORT OF SECOND-HAND APPLIANCES

IMPORTANT NOTICE

- The guarantee and manufacturer's liability cease:
 - if the recommended maintenance is not carried out;
 - if the user employs products different from those recommended by the manufacturer; if the appliances and/or the plants have been tampered with operations of any kind done by persons unfit and so unauthorised by the manufacturer.
- For any application that is not included and described in this manual, contact the manufacturer.
- Mono Jet is a EEE device, therefore it is subject to the WEEE (Waste of Electrical and Electronic Equipment) regulations.
- On the web-site: **www.cattani.it** you can find our **updated** manuals. We suggest to consult them especially for **safety** updating.

TRANSPORT AND STORAGE

- Packed equipment can be transported and stored at a temperature range of -10 °C / +60 °C.
- Packages must be kept away from water and splashing and cannot tolerate humidity >70%.
- Packages with the same weight can be stored in piles of three only.

TRANSPORT OF SECOND-HAND APPLIANCES

- Prior to packing cleanse and disinfect with PULI-JET PLUS 2.0 or other suitable product (see "Maintenance and cleaning").
- Place the unit into a polyethylene bag, seal and pack in 3-layer corrugated board.

WASTE DISPOSAL

INFORMATION FOR PROFESSIONAL USERS

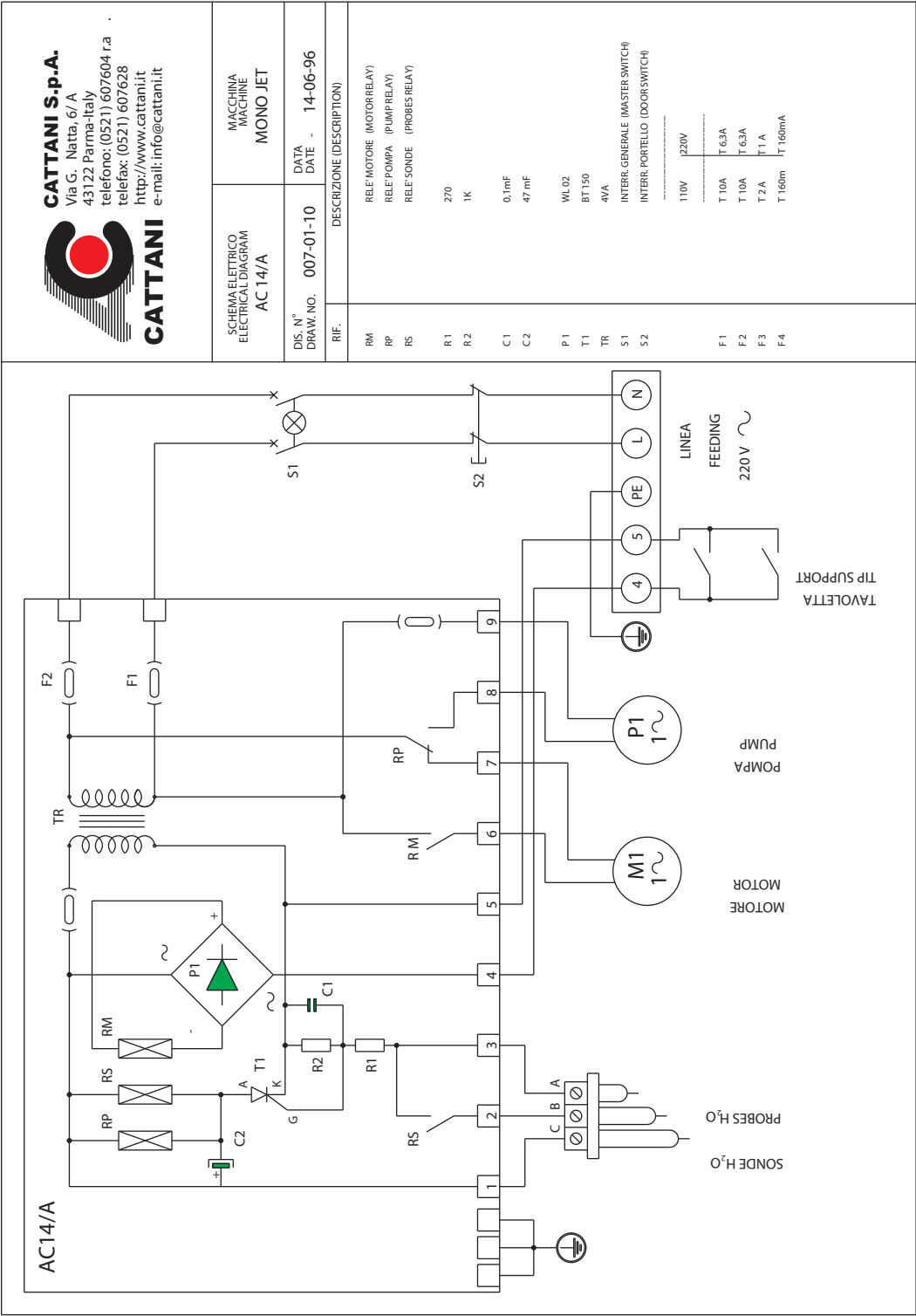
- Pursuant to art. 13 Legislative Decree no.151 25 July, "Implementation of directive 2011/65 EU ROHS and 2003/108/CE, concerning reduction of the use of dangerous substances in electrical and electronic appliances, and waste disposal".

The crossed out bin symbol on the appliance indicates that at the end of its useful life, the appliance must be disposed of separately from other waste. Separate disposal of this appliance at the end of its life is organized and managed by the manufacturer. Users wanting to dispose of this appliance must therefore contact the manufacturers and follow the system adopted by them to enable separate disposal of the appliance at the end of its life. Adequate separate disposal for subsequent recycling of the appliance, processing and environmentally compatible disposal

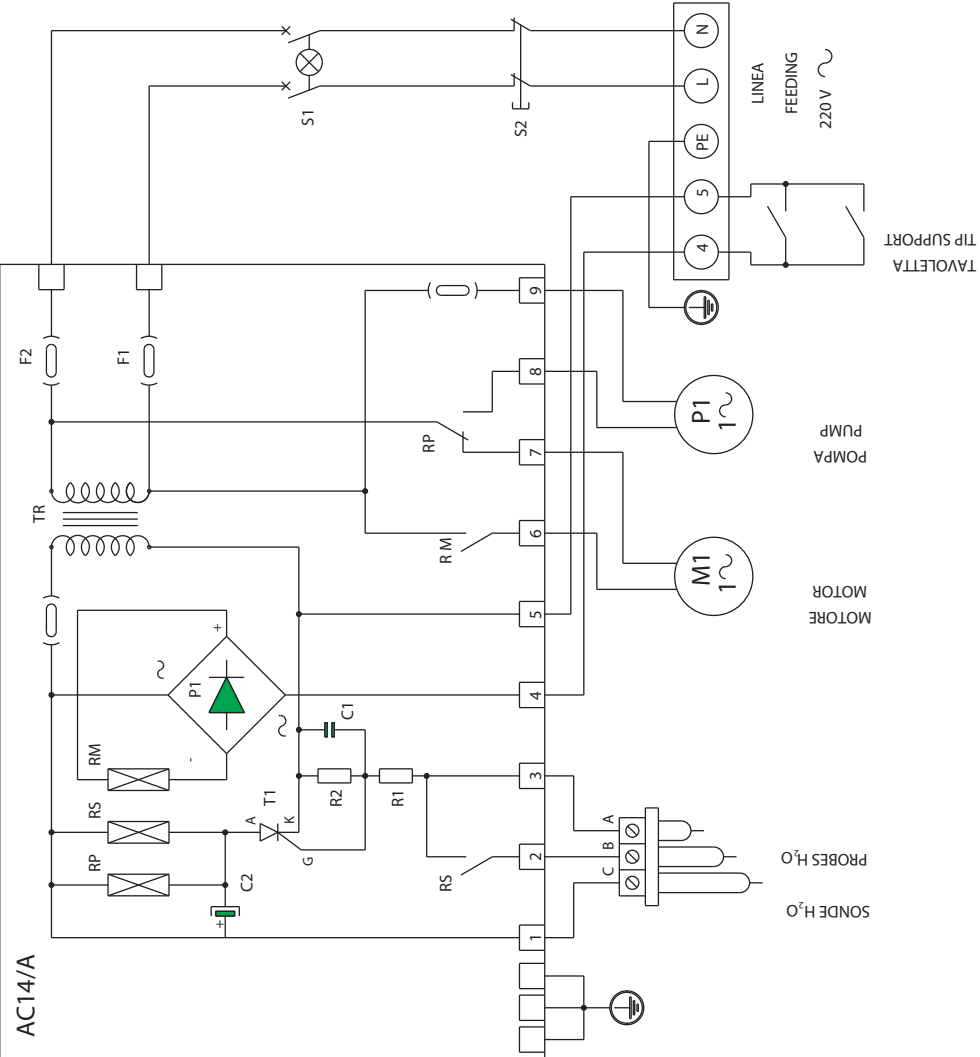
contributes to the prevention of negative effects on the environment and on human health and promotes reuse and/or recycling of the materials with which the appliance is made. Improper disposal of the product by the user shall result in the administrative sanctions set forth by current regulations.



ELECTRICAL DIAGRAM



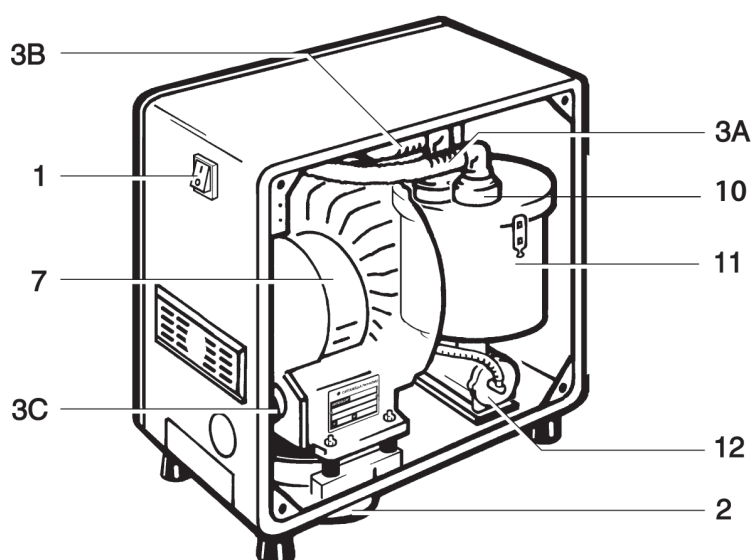
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MONO JET β

GB

MONO-JET β



LEGEND OF COMPONENTS

- 1 - On/Off switch
- 2 - Exhausted air silencer
- 3A - Debris conveying pipe
- 3B - Pipe conveying aspirated air to the motor
- 3C - Pipe conveying exhausted air to silencer
- 7 - Uni-Jet 75 aspiration unit
- 10 - Debris tube-holder sleeve (on canister)
- 11 - Maxi-Canister
- 12 - Draining pump

**WE HAVE BEEN SPECIALISING WITH AIR TECHNOLOGY
FOR 50 YEARS:
SPECIALIZATION HAS GIVEN EXCELLENT RESULTS.**

Company with Quality System certified = **ISO 9001** = and = **ISO 13485** =

cod: ed. 03-2024

HOW IS IT WE LEAD IN OUR FIELD, WHEN WE COST LESS THAN THE ALTERNATIVES? THIS IS HOW:

Constant research: this enables us to apply the latest technology to all of our products and solutions.

We enhance performance: electronic and information technology enable us to enhance the performance and reliability of our products.

We reduce costs: less maintenance and lower energy costs mean that we are always the most economical on a cost-benefit analysis.

We reduce environmental impact: we save 50% on raw materials, and allow you to save between 30% and 50% on electrical consumption.