

ASPI-JET

6-7-8-9 *γ*

• INSTRUCTIONS HANDBOOK



CATTANI S.p.A.

CE
0434



ASPI-JET 6-7-8-9 γ

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General running data

Dental Aspirator

Model: Aspi-Jet 6-7-8-9 γ

Rated voltage: 220 V~

Rated frequency: 50 Hz

Rated current: 3.1 A

Insulation class: I

Type of appliance: B

Use: continuous service

Protection against liquids: common

Level of protection against direct or indirect contact: type B 

	Alternating current	IEC 417-5032
	Earthing	IEC 417-5019
	Type B appliance	IEC 878-02-02
	Off	IEC 417-5008
	On	IEC 417-5007
	Cup-filler	ISO 7000-1854
	Bowl flush	ISO 7000-1855

Aspi-Jet 6 γ 220 V~ 50 Hz : Authorization  N. J1041

Aspi-Jet 7 γ 220 V~ 50 Hz : Authorization N. J1042

Aspi-Jet 8-9 γ 220 V~ 50 Hz : Authorization  N. J1062

Motor protected by thermal device

Output power: 0.4 kW

Maximum flow: 1250 l/min

Maximum operating head for continuous service: 1300 mm H₂O

Sound pressure level 60 dB(A)*

Other available tensions:

240 V~ 50 Hz 2,95 A

220 V~ 60 Hz 3,5 A

120 V~ 60 Hz 6,0 A

110 V~ 60 Hz 7,0 A

This appliance cannot work in contact with a flammable anaesthetic mixture with air, oxygen or nitrous oxide

*Sound pressure level tested (with tip N° 11, open) according to ISO 3746-1979 (E) regulation.
Parameters: r=1 - Background noise \leq 35 dB(A) - Instruments: Brüel & Kjær Type 2232.

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

LEGEND OF COMPONENTS See page 9

ASPI-JET 6 γ

ASPI-JET 7-8-9 γ

1	On-Off switch	1
2	Exhausted air silencer	2
3A	Fluids conveying pipe	3A
3B	Aspirated air conveying pipe to motor	3B
3C	Exhausted air conveying pipe to silencer	3C
4	Aspirated liquids manifold	4
5	Canister	5
-	Draining valve	6
7	Maximum level probes	7
-	Draining pump	8
-	Filter on canister cover	10
-	Fluids tube holder sleeve	11
-	Feeding water pressure reducer	12
-	Feeding water filter	13
14	Uni-Jet 75 aspiration unit	14

Certification of medical equipment according to Directive 93/42/CEE

Further to DNV accreditation for applying CE marking to those of our appliances that are classified as medical equipment:

ASPI-JET Models 6-7-8-9 γ

servicing Authorized technicians shall use only **original** CATTANI spare parts when repairing the above appliances.

Moreover, with reference to the components listed here below, whose lot and supplier can be easily traced, technicians shall refer to the following table:

Components	Code	
MOTOR UNI-JET 75	020354	110 V~ 60 Hz
	020348	220 V~ 50 Hz
	020349	240 V~ 50 Hz
	020353	220 V~ 60 Hz
PRINTED BOARD	180921	AC 15 CIRCUIT -220 V~
	180922	AC 15 CIRCUIT -240 V~
	180923	AC 15 CIRCUIT -110 V~
	180930	CIRCUIT + pump -220 V~
	180931	CIRCUIT + pump -240 V~
	180940	AC 20 CIRCUIT -220 V~
	180941	AC 20 CIRCUIT -240 V~
	180943	AC 20 CIRCUIT -110 V~
DOOR MICRO SWITCH	183102	
ASS. CABLE W/MICRO	180810	

While submitting an order for the above components to the Sales Department of CATTANI S.p.A, they shall also indicate

SERIAL NUMBER

of the concerned appliance, committing to install the components to that appliance and not to others.

General features

Our mobile aspirators supply a good aspiration independent from the dental unit; the trolleys allow use in any working position. The aspirator **type 6 (canister to be emptied manually)** can be moved quickly from one surgery to another; for this reason it can be used as an emergency aspirator to support the centralized plant or the aspiration system of the dental unit.

Aspi-Jet 7 γ is fitted with automatic drainage, it must be connected to the waste of the building. Besides the general features of Aspi-Jet 7 γ , **Aspi-Jet 8 γ and Aspi-Jet 9 γ** offer some additional function: **water supply to the tumbler and spittoon (cuspidor) with rinsing respectively**. The switches which control the above functions are marked with symbols and are located on the front panel:

- a tumbler indicates the water supply on type 8 γ
- a tap indicates rinsing of the spittoon on type 9 γ .

Installation

The aspirator must be installed in compliance with **CEI 62-5/2a 1991 regulation for electro-medical appliances (Aspi-Jet 6-7-8-9 γ have been designed accordingly)**.

Prior to plugging in the unit, check the specifications on the label and make sure that the mains are compatible with the appliance and protected against overcurrent according to CEI 64-8 regulations.

The appliance must be protected against indirect contacts for class I appliances according to **CEI 64-8 and 64-4 reg.**

The plug and cable are equipped with earthing protection: do not remove this protection in any case and make sure that the socket is compatible.

Once installation has been completed, the unit can be switched on by pressing the main switch located on the front panel; the switch will light up and aspiration will start by lifting one of the terminals from its seat. **If you open the cabinet door the electrical circuit is open and the aspirator stops.** In standard assembled units aspirated air is exhausted through the silencer (2). In order to convey exhausted air outside you need to fit an extension to hose 3C and drive it outside (Fig. A).

Most of the noise and bacteria will be carried outside together with air; we can also supply a certified bacterial filter for exhausted air.

When installing Aspi-Jet 8 and 9 γ , besides all general directions and regulations mentioned, the technician shall:

- connect the water supply, without removing the antispray tube (15 Fig. B) which protects the Rilsan tube against bursting;

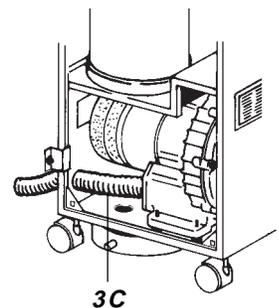


Fig. A

- check any possible leaking, especially near parts subject to tension;
- adjust water pressure to a max of 4 bar by using the pressure control device (12 Fig. B).

Operation and use

Aspirated liquids and air are conveyed to the manifold (4) through the tip and lifted hose and on to the canister through tube 3A; inside the canister liquids are separated from air. The air is driven all the way to the motor and is then exhausted, while liquids are heavier and are collected at the bottom of the canister.

Aspi-Jet 6 γ is equipped with a canister (5) whose capacity allows 8/10-hour continuous service before reaching maximum level, therefore the canister needs emptying every evening after work.

Aspi-Jet 7 γ has automatic drainage: a valve (6) located at the bottom of the canister is kept close by depression when suction is performed; on the contrary, when all terminals are on their seats suction stops and liquids are drained out of the canister. In case the canister should fill up during service, the probes (7) will sense maximum level at about 3/4 of the canister (shortest-probe level); the electrical circuit is open and suction stops, while a yellow-light indicator located on the front panel warns that the canister is full.

For Aspi-Jet 6 γ you need to switch the unit off and empty the canister manually; for Aspi-Jet 7 γ, as mentioned above, the draining valve opens and the draining pump (8) starts working. In a few seconds the canister is empty and suction starts again automatically.

During surgical operations, foam build-up, caused by blood and aspirated air, can reach probe level causing the unit to stop; in this case we suggest the use of our solid anti-foaming (directions for use are inside the package - Fig. B1).

In case some failure (clogging of cooling system, breakdown etc.) should cause overheating of the motors - >120 °C for Uni-Jet 75 suction unit and >90 °C for draining pump (8) - a thermal device rated at a fixed temperature opens the circuit and resets it automatically, when the temperature of the windings is back to normal. Should this happen, identify and eliminate the cause.

Notice

Prior to starting any servicing operation on appliances that have been used, clean with Puli-Jet a few times as explained in the maintenance section. Use disposable GLOVES (fig. B3), GOGGLES, MASK and OVERALL.

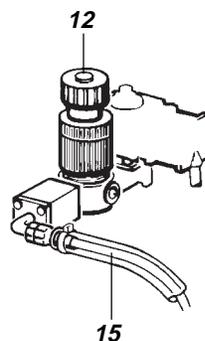


Fig. B



Fig. B1 (*)

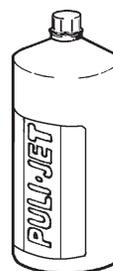


Fig. B2



Fig. B3

(*) Sanitizing antifoaming agent for dental aspirators

Maintenance and cleaning

Together with liquids some solid particles may be sucked in, therefore it is necessary to have filters in order to protect the motor and recover wanted particles.

Aspi-Jet 6 γ is provided, like all other models, with a debris filter (9 Fig. C) which can be checked from outside the cabinet; Aspi-Jet 7 γ is provided with a filter (10) on the canister cover.

Filters must be cleaned every day. In order to remove the filter, first turn the unit on and aspirate only air so that hoses and manifold will dry out; disconnect the power supply line, lift the terminals from their seat and remove manifold (4 Fig. C) pulling the filter outwards by its handle. To check filter (10) lift bent pipe union (11 Fig. D).

For Aspi-Jet 6 γ , every evening, once disconnected the power supply line, loosen the two rubber bands and remove lid: take out canister, empty and clean (Fig. E).

For Aspi-Jet 7-8-9 γ **the canister must be removed once a week and cleaned under running water; all canisters, covers and probes must be accurately cleaned with a sponge and Puli-Jet diluted in hot water.**

Every evening, after cleaning the filters, it is important to aspirate Puli-Jet diluted in hot water; to prepare the Puli-Jet solution follow the instructions on the bottle.

Disinfection and cleaning should be carried out as follows (Fig. F): fit tip n. 11 to the bigger terminal and tip n. 10 or 17 to the smaller terminals;

dip one tip at a time (do not dip the terminals) and aspirate until the suction power of the unit decreases; remove tip from the solution and hold it up in order to allow liquids to flow to the manifold and on to the canister. Repeat 2-3 times for each terminal.

Once rinsing is completed Aspi-Jet 7-8-9 γ carry out drainage automatically, while for Aspi-Jet 6 γ the canister is to be emptied once again.

Puli Jet dissolves blood and mucus and performs an antimicrobial action; if used regularly, every day with hot water, Puli Jet removes old scalings and disagreeable smells.

Do not use detergents, even with reduced foaming, as aspirated air volume and turbulence may cause foam build up and damage the suction unit, make it stop and produce disagreeable smells.

O-rings (tightening rings) and sliding closures of terminals (Fig. G) must be lubricated with spray silicon every 15 working days.

During all cleaning operations use disposable GLOVES (Fig. B3), GOGGLES, MASK and OVERALLS.

It is advisable to replace all hose of the plant (Fig. H), especially outside the unit, and terminals every year for sanitary and functional reasons (flexibility and lightness of hose, smoothness of sliding closures).

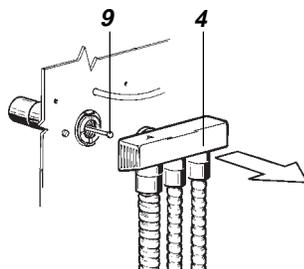


Fig. C

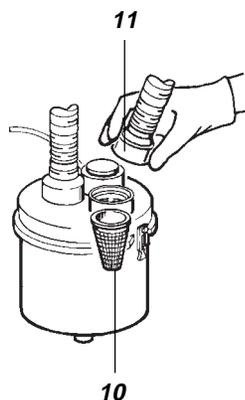


Fig. D



Fig. E

Main cleaning and maintenance operations

- After every surgical operation or any long operation: rinse the appliance by aspirating hot water.
- After each working day: clean filters, clean plant with Puli-Jet and hot water.
- Once every fortnight clean the canister, draining valve and probes; lubricate OR and sliding closures of terminals with spray silicon.
- Prior to leaving the dental office unattended for some days: turn the unit on and let it run only with air for 20-30 minutes. All parts of the unit will dry out, enabling you to avoid the formation of salts (usual feature of light alloys) due to moisture and basic compounds; salts could block the fan and consequently stop the motor.

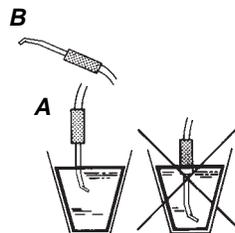


Fig. F

Maintenance operations meant for technical staff

Further to the maintenance operations listed so far, for Aspi-Jet 8 and 9γ you also need to check the water filter (13 Fig. I).

- Once every 6 months: replace terminals and hose outside the unit. The technician shall check relays, siphons and outlets, all internal piping, plastic and rubber subject to aging.

The manufacturer is willing to supply spare parts, technical information and any other information that might be needed.

Distributors, agents authorized retailers and technicians are supplied with split-up drawings, electrical diagrams, handbooks and updating, as regards servicing and maintenance.

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

Guarantee and manufacturer liability cease in case appliances and/or plants are found tampered by any kind of action performed by unable and thus unauthorised people.

For any use not contemplated or specified in this handbook please refer to manufacturer.

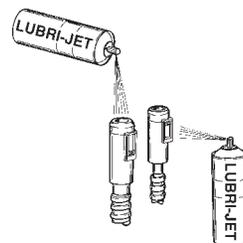


Fig. G

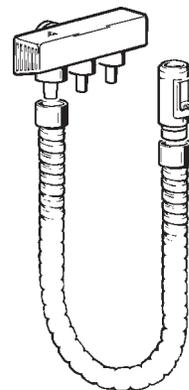


Fig. H

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 sanitize with Puli-Jet (see maintenance and cleaning) place unit into a polyethylene bag, seal and pack in 3-layer corrugated board.

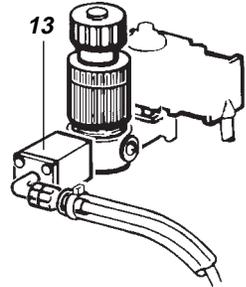
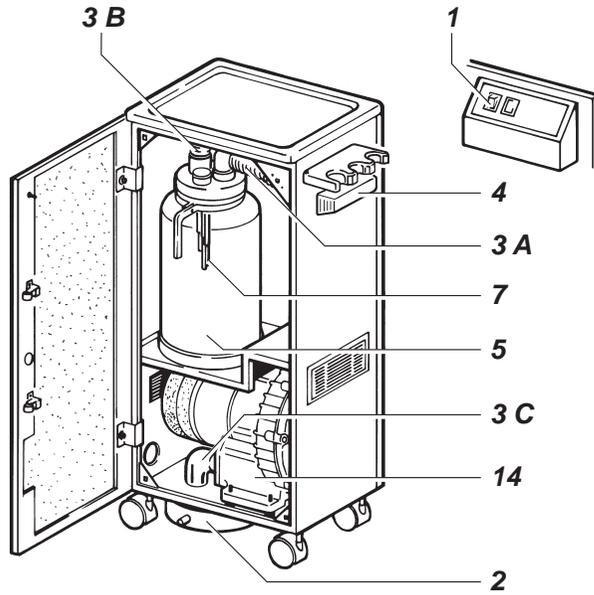
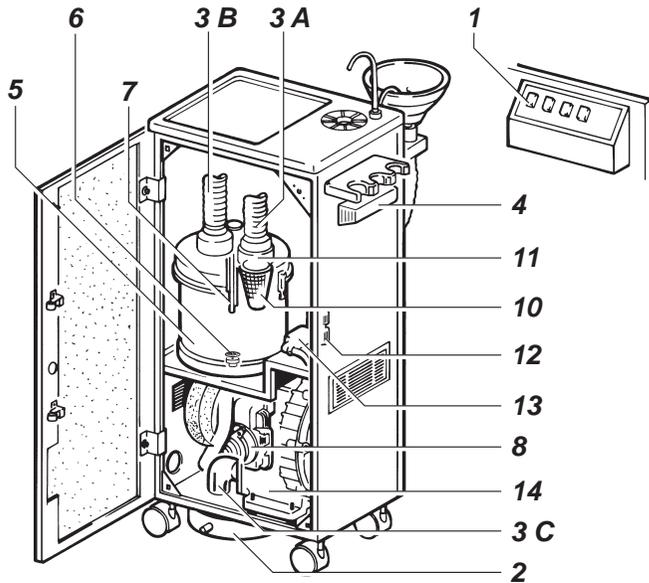


Fig. 1

ASPI-JET 6 γ



ASPI-JET 7-8-9 γ



ITALIAN PATENTS OR PATENT APPLICATIONS:

1201707 - 1234267 - 1234828 - 1259318 - 1.187.187 - 1253460 - 0766008 - 1236271 - 01242921

FOREIGN PATENTS OR PATENT APPLICATIONS:

EP 0040181 - AU 546.143 - US 4,386,910 - EP 0 638 295 - EP 0 254 687 - AU 590433 - US 4,787,846 - US 5,039,405
- EP 0335061 - US 5,002,486 - EP 0211808 - AU 580839 - US 4,684,345 - EP 0 557 251 - US 5,330,641 - EP 0766008
- US 4,710,209

PENDING PATENT

IT M093U000019 - EP 0 749 728 - IT M095U000030 - JP 168553/97 - IT M097A000139 - IT M098A000019 - IT M098A000119



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Azienda con Sistema Qualità Certificato secondo UNI EN ISO 9001 - UNI CEI EN 46001



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