

This suction unit is manufactured by ALSA - Apparecchi Medicali - Castel Maggiore (Bologna - Italy), which is responsible for its functioning, reliability and safety, but only if the installation, the additions, the calibrations and the changes are performed by authorized people and if the usage takes place in an environment which complies with the IEC/CEI regulations, and in accordance with the instructions for use.

On request, the company will distribute the electrical drawings and all information required.

**In accordance with the European regulation for the medical devices CE 93/42 and the procedures of the quality system for the after-sale check of production, the users have to communicate to the company all the problems, even the smallest ones, related to this unit, in order to allow the technicians to intervene as soon as possible.**

### INSTRUCTIONS FOR USE AND REGULATIONS

According to the International Directives EN 10079/1, this is a portable suction unit, with a low vacuum level and a low flow rate; it is suitable only for drainage in the hospitals and at home.

**Emergency: In order to stop suddenly the suctioning operation, disconnect the tubing unit / jar .**

#### PRELIMINARY RULES (see the drawings in the second page)

- a) **Check the mains power: it must correspond to the technical data on the rear of the unit;**
- b) **Place the jar on the unit, and verify that the cap is well fitted (by pressure), and that the overflow device moves without impedances. Provide for the connection unit / jar, by using the appropriate tubing.**

**OPERATION RULES (use the unit in vertical position, and make sure that the ventilation areas are not obstructed nor at a distance of less than 20 cm from the other objects)**

- 1) Switch the unit on with the general mains switch;
- 2) Adjust the vacuum at the desired level, as indicated into the section "Suction Regulation".

#### Suction regulation into the mod. VACUTRON AS-120 (continuous suctioning)

The regulation of the suctioning can be operated through the activation of the pedal switch – rotative and multi-turns (max. in clockwise – it automatically compensates the vacuum, just in case of variations of the power supply), placed on the top of the device (it is equipped with control vacuum regulator at double range: 250 cmHg and 3,5 m/H<sub>2</sub>O). Before using the unit, it is possible to select the max. vacuum, which cannot be exceeded, by activating the device with the suction tube completely closed, and by operating on the regulator in order to select the level that has been chosen.

#### Suction regulation into the mod. VACUTRON AS-130 (continuous suctioning)

The regulation of the suctioning is the same as per the previous model (AS-120), but it must be considered that this unit can work both in continuous and intermittent modes. Thus, before regulating the suctioning, you should select, with the "time" key on the front panel, the continuous functioning ("CONT") or the intermittent functioning ("INT"). With the rotative switches, it is possible to select also the length of the active and passive functioning times. Both of them can be regulated separately, from 30 to 180 sec.).

#### Overflow device

All jars are equipped with an overflow device, which avoids the possible aspiration of the liquid into the pump, by interrupting the functioning itself (the aspiration stops when the vacuum into the jar is finished).

It is really important that the device is in very good conditions, and well clean and efficacious.

#### Emptying of the jars

In order to empty a full jar, you should take it, by keeping it in vertical position (do not take it through the cap). Then:

- a) Start the emptying procedure through the hole for the connection tubing/patient;
- b) Take the cap away for the final stage of the emptying procedure, only when the jar is quite completely empty.

#### ANTIBACTERIAL FILTER WITH SUPPLEMENTARY OVERFLOW DEVICE

The antibacterial filter, in a unique block, can be autoclavable (code GP/F, or R/F as spare part), that is sterilizable 30/50 times in autoclave with a cycle of 121°/20min., or disposable (code GP/FM, or R/FM as spare part). Both the sterilizable and the disposable filters have an efficiency level of 99.97% for all particles ≥0.3 micron. These filters can block the liquids; that's the reason why they are considered as a second overflow device.

The filter must be connected as indicated into the drawings (point "F"), by following the instructions printed on the filter itself: **it has an obligatory connection side**. The whole group coupling/tubing is made of silicone sterilizable rubber, and so it can be connected or disconnected by a simple pressure and with extreme facility. During the cleaning, it must not be wet and, above all, if it is the case, the interior membrane must be dried because otherwise the aspiration capacity is completely blocked.

In optimal conditions (by suctioning with the regulator selected at the max. level of vacuum), on the vacuum device it is possible to put a vacuum of 10-15 cmHg, which increases when the filter tends to become obstructed (at the same time, the aspiration force decreases).

The filter replacement must be operated after 30 treatments (the number can be higher or lower, as it depends on the aspirated substances; anyway, it cannot be more than 50 times).

#### RAPID CHECK OF THE TUBING, JARS, ETC.

In order to check the status of the tubing, the connections, etc., every time you use the unit, it is advisable to switch it on, by reaching the max. level of vacuum to verify that all parts are well connected and not damaged or obstructed.

#### CLEANING, STERILIZATION, MAINTENANCE AND TRANSPORT

The jar with the cap (both of them are unbreakable), all the tubing with the connections as well as the cannulae are sterilizable (in autoclave, for 20 min. at 121°C, or with cold sterilizable solutions, like Cydex).

The unit must be cleaned with a solution based on neutral soap, by paying attention that the liquid does not go inside; then, the unit must be dried with a cloth. When the unit is not used for a certain period of time, it must be kept in a dried place, without dust and at a medium temperature (not too high, nor too low, as for the functioning). No liquid substance must be spilt on it.

It is advisable to check the unit regularly (every year, at least) with authorized personnel. It is better to call directly the manufacturer's technicians.

The transfer / transport of the unit must be operated by keeping it in vertical position.

**Check of the overflow device**

Verify that the floating bar moves without any obstacle and that the internal gasket is in well conditions (to do so, you should unscrew the ring-nut which carries the bar).

It is advisable to replace this basket every 500 hours of functioning.

**Do not intervene personally on the suctioning group; use the technical qualified service.**

**DISPOSAL:** All the materials, the consumables included, must be eliminated according to the different National Laws.

**TECNICAL DATA**

- Directives CEI EN 60601-1 and CEI EN 10079-1;
- Classification CEI EN 10079-1: portable suction unit for medical usage with a low vacuum and a low flow rate;
- Class: I – type: B;
- Power supply, absorption, and fuses: 230 V ~ 50 Hz – 90 mA – T 0,5 A;
- Functioning: continuous;
- Noise: lower than 50 dB;
- Max. vacuum: 160 mmHg ± 5% which corresponds to -217 cmH<sub>2</sub>O;
- Vacuum regulation: rotative compensation switch and vacuum regulator for checking in cmHg and cmH<sub>2</sub>O;
- Flow rate: 8 l/min.
- Protection against the liquid penetration: normal;
- Cooling system: normal;
- Dimensions (length x depth x height): cm 32x32x30 - Weight kg 8;
- Standard jar: (VMLT-1) capacity: 900 ml or (VMLT-2) capacity: 1800 ml;
- Tubing: patient: n° 1 (mt1,3 - Ø7x12 in silicone), filter and connections for the jars: n° 1 (cm 30 Ø6x11 in silicone);
- Mains cable: section 3x0,75 mm<sup>2</sup>, length mt2;

**Environmental conditions**

**For usage:**

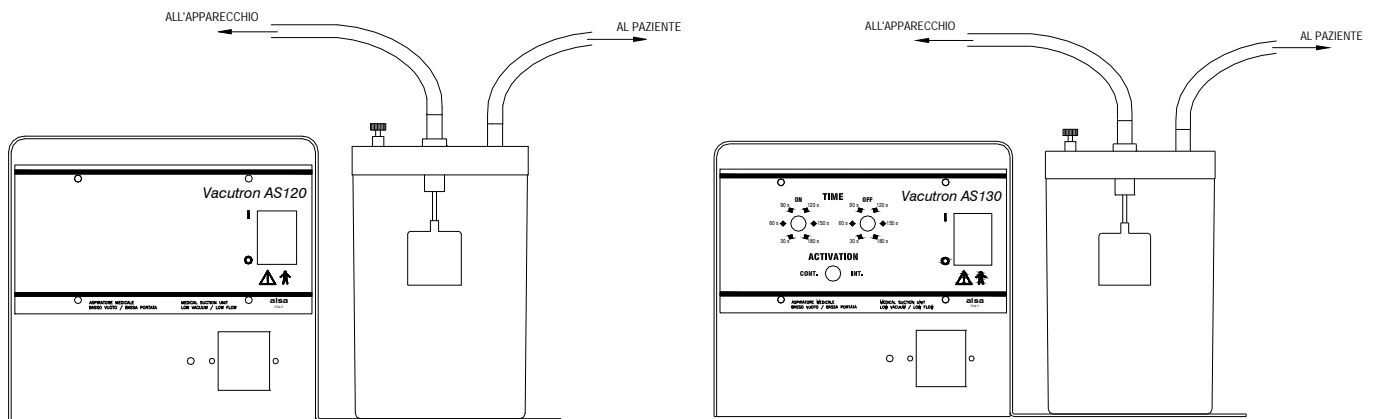
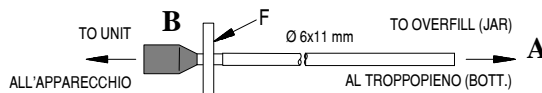
Temperature (°C)	+10 ÷ +35
Humidity	30% ÷ 75%
Pressure (hPa)	700 ÷ 1060

**For transport and storage:**

Temperature (°C)	-40 ÷ +70
Humidity	10% ÷ 95%
Pressure (hPa)	500 ÷ 1060

**SWITCHES AND CONTROL DEVICES**

- General main switch;
- Vacuum regulator;
- Vacuum regulator for checking;
- Functioning selection (only mod. VACUTRON AS-130);
- Rotative switches for the regulation of the active and passive functioning times (only mod. VACUTRON AS-130).



Variabilità del comando manuale di regolazione vuoto	Terra di protezione	Attenzione, consultare la documentazione annessa	Classe I - Tipo B
Corrente alternata	Spengimento (messa fuori tensione)		
Accensione (messa in tensione)			