

Description of the ISO520 Unit:

Device creates negative (or positive) pressure inside the (patient's) room.

Trade mark: MedicCleanAir

Type: ISO520 device for (isolation) rooms – up to 30m² / 90m³

Standard with ULPA15 filter cartridge and pre-filtration frame + filter (F5)

Optional: remote control RC200 by key that offers continuous pressure difference monitoring, alarm setting and display

Description: Below + brochure and technical data sheet

Installation examples: See brochure

Brief description and explanation:

This unit is made for installation against or in the (false) ceiling, or against the wall. The unit does not take any floor space. Installation of the unit is easy and quickly done (1day work). The unit is connected to a new tube or to an existing ventilation tube. The ISO520 is equipped with a connection piece that connects the device with the tube.

The unit consists of one piece only; it includes the filter part, the ventilator part and the electronics, including permanent pressure difference monitoring between the patient's room and the surrounding area e.g. the corridor, and is provided with an air back-pressure flap that avoids return airflow.

The amount of pressure difference that can be reached with this unit depends on the type of room where it is installed (good sealed off). In general, one may assume that pressure differences up to 12Pascal are possible if the room is sealed. This unit is not only suitable to make instant isolation rooms but also to put O.T.'s, ICU's, or laboratories in slight positive pressure to keep contamination out of the room.

Depending on the quotation the following is offered:

a. Regarding the main filter cartridge

- Main filter cassette ULPA 15 level (= one level higher than HEPA14 level)
- Filter is leak tested
- Filter is airtight connected to the device
- Filter is provided with a chip to check the filter condition (hygiene security) and when replacement is needed, a visual / LED signal will be given (green-yellow-red).
- Life time of this filter cartridge is mainly between 12 and 18 months.
- Each filter cassette is provided with a leak test certificate following EN1822, mentioning: date of production, filter type/class, date of leak test, production number.
- Filter cassette delivers a quantity of max 1000m³/hour – normal use up to 600m³/hour.

b. Regarding the pre-filter

MedicCleanAir provides the device with a pre-filter (type F5) on the outside of the device as in some circumstances (sand dust/storms – renovation works, etc.), large dust particles may saturate the highly efficient main ULPA15 filter cassette of the unit.

This pre-filtration has 2 major advantages:

- protection of the ULPA filter cassette against large dust particles
- the pre-filters can be changed/renewed at the same time when a patient leaves the hospital; the room surfaces are cleaned, disinfected, towels, bed sheets are renewed, etc.). The renewal of the pre-filters obviously gives a clean and hygienic impression to patients, hospital staff and visitors, as well.

c. Regarding the ISO520 device itself:

- steel with finishing in white epoxy, anti-bacterial coating
- capacity up to 1000m³/hour – normal use up to 600m³/hour.
- 4 operating levels, including one night level (for patient sleep) – each level can be set at a specific desired level (number of rpm)
- supplied with an ‘air back pressure flap’ which ensures that no air can flow in the opposite direction.
- integrated pressure difference (continuous monitoring of pressure difference between the patient’s room and the surrounding area) – optional but advised.
- maintenance: none, except for the change of the filter cartridge: 1x/year
- guarantee: 3 years with maintenance contract (= maintenance 1x/year)
- parts are available at least 10 years after date of installation
- no asbestos or wood components in any part of the system
- noise levels are between 20 ≤ 55 dB.
- unit can operate in up to 100% relative humidity
- CE approved for the entire device
- Pre- and after sales assistance: a visit can be organized in the presence of the manufacturer or their representatives that are fully trained to assist in order to determine the correct places of installation and to give training to each department and hospital staff after the devices have been installed.

d. Remote control device with permanent pressure difference monitoring RC 200

- remote control + cable (also see remark)
- 5 levels operated by key (only hospital staff can operate the device – patient cannot)
- Levels can be set as required by circumstances of the patient’s room (not every room is the same)
- 1 automatic level: one sets the desired pressure difference and the electronics will continuously instruct the unit to perform in order to reach the desired level
- alarm functions (visual and acoustic): e.g. when a patient leaves his door open, the pressure difference will fall immediately, the unit will start to function harder (fan will turn faster) in order to reach the desired pre-installed Pa-level. When the unit cannot reach the desired level within 30 seconds, an alarm (visual and acoustic) will inform the nurses that something is not right in that room.
- each remote control includes a small plasticized instruction card for hospital staff with easy operation instructions
- further info: see brochure & technical data sheet.

Remark:

Our years of experience have shown that remote controls that are wireless are lost very easily. Our Remote Controls are therefore with cable and fixed on the wall. They all operate with the power supply coming from the main unit – no external power supply is needed.

Also, the MedicCleanAir remote control device RC200 is offering continuous pressure difference monitoring and alarm settings, topics needed to get JCI accreditation for the isolation room.

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