



INSTRUCTIONS FOR USE AND INSTALLATION OF MIRACLEAIR EXTRACTION AND FILTRATION UNITS



CONTENT

| | | |
|----------|--|----|
| 1. | General information | 4 |
| 1.1. | Introduction..... | 4 |
| 1.2. | Warnings and symbols | 4 |
| 1.3. | Using the unit | 4 |
| 1.3.1. | Intended use of the unit | 4 |
| 1.3.2. | Prohibited use of the unit – MiracleAir unit must not be used: | 5 |
| 1.4. | Transportation, delivery inspection and storage | 5 |
| 1.4.1. | Transportation | 5 |
| 1.4.2. | Delivery inspection | 5 |
| 1.4.3. | Storage..... | 5 |
| 1.5. | Package contents..... | 5 |
| 1.6. | Before the installation..... | 5 |
| 2. | Technical parameters | 6 |
| 2.1. | MiracleAir unit design | 6 |
| 2.1.1. | Aerosol extraction unit with a special arm MiracleAir 300-A1 | 6 |
| 2.1.1.1. | Arm (positions 1 and 2) | 7 |
| 2.1.1.2. | Extraction box (position 3) | 7 |
| 2.1.1.3. | Filter box (position 4) | 7 |
| 2.1.1.4. | Design side panels (position 5)..... | 7 |
| 2.1.1.5. | Fan box with control panel (position 6) | 7 |
| 2.1.1.6. | Main switch (position 7.)..... | 7 |
| 2.1.1.7. | Power cable with plug (position 8.)..... | 7 |
| 2.1.2. | Air purifier - MiracleAir 400-B unit | 7 |
| 2.1.2.2. | Filtration box | 8 |
| 2.1.2.3. | Design side panels | 8 |
| 2.1.2.4. | Fan box with control panel..... | 8 |
| 2.1.2.5. | Main switch (position 7.)..... | 8 |
| 2.1.2.6. | Power cable with plug (position 8.)..... | 8 |
| 2.2. | Main dimensions of Miracleair aerosol extraction unit and the air purifier | 8 |
| 2.2.1. | MiracleAir 300-A1 aerosol extraction unit | 8 |
| 2.2.2. | Air purifier - MiracleAir 400-B unit | 9 |
| 2.3. | Technical parameters of MiracleAir 300-A1 units; MiracleAir 400-B | 9 |
| 3. | Unit installation | 9 |
| 3.1. | General information, recommendations and safety when installing MiracleAir unit | 9 |
| 3.1.1. | Electrical safety before unit installation | 9 |
| 3.1.2. | Unpacking | 10 |
| 3.1.2.1. | Unpacking the MiracleAir Unit - box 1 | 10 |
| 3.1.2.2. | Unpacking the suction arm - box 2 (only in the case of the MiracleAir 300-A1 aerosol extractor)..... | 10 |
| 3.1.3. | Positioning of the unit | 11 |
| 3.1.4. | Minimum installation distances..... | 11 |

| | | |
|----------|--|----|
| 3.1.4.1. | MiracleAir 300-A aerosol extraction unit | 11 |
| 3.1.4.2. | Air purifier - MiracleAir 400-B unit..... | 11 |
| 3.2. | Installation of the MiracleAir unit | 11 |
| 3.2.1. | Installation of the MiracleAir 300-A aerosol extraction unit | 11 |
| 3.2.1.1. | Assembling the exhaust arm | 11 |
| 3.2.2. | Installation of a protective sleeve | 12 |
| 3.2.3. | Installation of air purifier - MiracleAir 400-B units | 13 |
| 3.3. | Electrical installation - connection to the electrical network..... | 13 |
| 3.3.1. | General information - safety | 13 |
| 3.3.2. | Mains connection | 13 |
| 3.3.3. | Labelling of electrical parameters | 13 |
| 4. | Regulation - unit control..... | 14 |
| 4.1. | General information - safety | 14 |
| 4.2. | Controls | 14 |
| 4.2.1. | Main control panel | 14 |
| 4.2.1.1. | Main control - knob (position 1)..... | 14 |
| 4.2.1.2. | Signal diode | 14 |
| 4.2.1.3. | Indicator of filter box clogging - signalisation of need for filter box replacement..... | 14 |
| 5. | Wiring diagram of MiracleAir units | 15 |
| 6. | Commissioning | 16 |
| 6.1. | Before the first operation, check the following: | 16 |
| 6.2. | Switching on | 16 |
| 6.3. | Setting the correct power of the unit..... | 16 |
| 6.3.1. | Setting the output of the MiracleAir 300-A aerosol exhaust..... | 16 |
| 6.3.2. | Setting the output for the air purifier - MiracleAir 400-B unit | 17 |
| 7. | Regular maintenance and cleaning of Miracleair units | 17 |
| 7.1. | Regular maintenance – inspection | 17 |
| 7.1.1. | General information | 17 |
| 7.1.2. | Filter box replacement..... | 18 |
| 7.1.3. | Replacement of protective sleeve (only for the version with suction arm) | 24 |
| 7.2. | Cleaning the unit | 24 |
| 7.2.1. | General information | 24 |
| 7.2.2. | Cleanable surfaces | 24 |
| 8. | Service | 24 |
| 8.1. | Troubleshooting | 25 |
| 8.2. | Error persists | 25 |
| 9. | Decommissioning, dismantling and recycling..... | 25 |
| 10. | Warranty..... | 26 |
| 11. | In conclusion | 26 |

1. General information

1.1. Introduction

- This document "Installation and Instructions for Use" (IFU) is intended for MiracleAir 300-A extraction unit and MiracleAir 400-B filter unit (hereinafter referred to as the unit) intended to extract and filter indoor air in required spaces. The extraction and filtration unit is used to remove particles directly at the place of their origin to protect the health of workers.
- Detailed knowledge of this document is important for correct and safe installation and operation of the unit. Failure to follow the terms in this document may result in malfunction of the unit.
- Keep the IFU of the unit for future reference after thoroughly reading it.
- It is forbidden to interfere with the internal wiring of the unit in any other way than specified in this manual. Due to the constant development of our products, we reserve the right to change this manual without prior notice.

1.2. Warnings and symbols

- The following names and symbols are used in the IFU, on the packaging and on the product for particularly important information:



Warning



Caution, risk of electric shock



Connection of protective conductor



Indicates the correct position when handling and storing the packaging



Cautions about the need for protection against moisture. Product - packaging labelled with this symbol may not be transported in open vehicles and stored in uncovered buildings and on the ground without a pad



Draws attention to the fragility of the product contents and need for careful handling of the packaged product.

FRAGILE
KEEP DRY

Draws attention to the need for protection against moisture and the fragility of the product inside the packaging



Orientation arrow for filter placement

1.3. Using the unit

1.3.1. Intended use of the unit

- MiracleAir unit is intended for indoor use only, without dust over-saturation in the surrounding air to:
 - o extraction of aerosol-smoke, which may be generated during medical procedures in association with the treatment of the patient, e.g.: dental treatment, anaesthesiology management, etc.
 - o indoor air filtration e.g.: medical facilities, waiting rooms, cosmetic facilities, offices, etc.
- The unit is designed for the extraction and filtration of particles larger than 0.1 to 0.3 μm (filtration efficiency of 99.95%).
- The unit is designed for indoor use in covered and dry areas with an ambient temperature from 5° C to +40° C and with a maximum relative humidity of 70% (non-condensing).

1.3.2. Prohibited use of the unit – MiracleAir unit must not be used:



- for extracting burning or glowing substances!
- to extract highly flammable or explosive gases.
- for extracting aggressive media



- for extracting liquids of any kind.
- in an environment with an increased risk of explosion, flammable substances and increased dust load.
- Neither the manufacturer nor the supplier is liable for damages caused by improper use of the units. The risk is borne by the user.

1.4. Transportation, delivery inspection and storage

1.4.1. Transportation



- Transport the product in the position marked with the symbol on the packaging.
- The packaging must not be loaded in excess of limits permitted by the manufacturer.
- The packaging must not be exposed to environmental effects
- The transport temperature of the air must be between –25 and 55° C, for a short time (24h) up to 70° C.
- The relative humidity during the transport must be between 10 and 90% (non-condensing).
- **Use adequate tools for transport to prevent damage to the product and damage to the health and endangering persons.**
- During further transport without the original packaging or with altered original packaging, the device must be optimally secured and protected against damage.

1.4.2. Delivery inspection

- Before the installation and before unpacking the unit from the box, it is necessary to check the packaging for any signs of damage. In case of damage to the packaging, please contact your carrier.
- Check that the delivery truly contains the product you ordered. After unpacking, check that the unit and other components are not damaged. Report any discrepancy with the ordered products immediately to the supplier. If the complaint is not made immediately after the delivery, it will not be taken into account later.

1.4.3. Storage

- If you do not install the unit immediately after the purchase, it must be stored indoor, in non-condensing environment at temperatures ranging from 0 to 40° C. If the product is transported at temperatures below 0° C, it must be stored in the operating environment it is to be installed for at least 2 hours after unpacking.

1.5. Package contents

Box 1

- | | |
|------------------------------------|----|
| - MiracleAir unit | 1x |
| - Quick manual + safety data sheet | 1x |
| - Production label | 1x |

Box 2 (only for units with a suction arm)

- | | |
|-------------------------------------|-----|
| - Suction arm 1 (fixed) | 1x |
| - Suction arm 2 (with flexible end) | 1x |
| - Mounting clip | 2x |
| - Self-tapping screw 4.2x9.5 | 2x |
| - Protective sleeve | 50x |

1.6. Before the installation



- Before the installation, we recommend attaching the production label (supplied in the package) to the operating documentation (e.g. equipment operation book, etc.) to be kept for later maintenance records and possible service.
- **Before starting any installation work, make sure that the intended mains socket is equipped with a protective contact (pin).**
- Verify that the outlet meets power requirements of the unit (voltage, current, etc.) listed on the production plate of the unit.

2. Technical parameters

2.1. MiracleAir unit design

2.1.1. Aerosol extraction unit with a special arm MiracleAir 300-A1

- | | |
|--|-------------------------------|
| 1. ARM 1 (fixed) | 6. FAN BOX WITH CONTROL PANEL |
| 2. ARM 2 (with flexible end) | 7. MAIN SWITCH |
| 3. EXTRACTION BOX | 8. POWER CABLE WITH PLUG |
| 4. FILTRATION BOX (COARSE PARTICULATE FILTER + PREFILTER + HEPA FILTER + FILTER WITH ACTIVATED CARBON) | |
| 5. DESIGN SIDE PANELS (2 PCS) | |

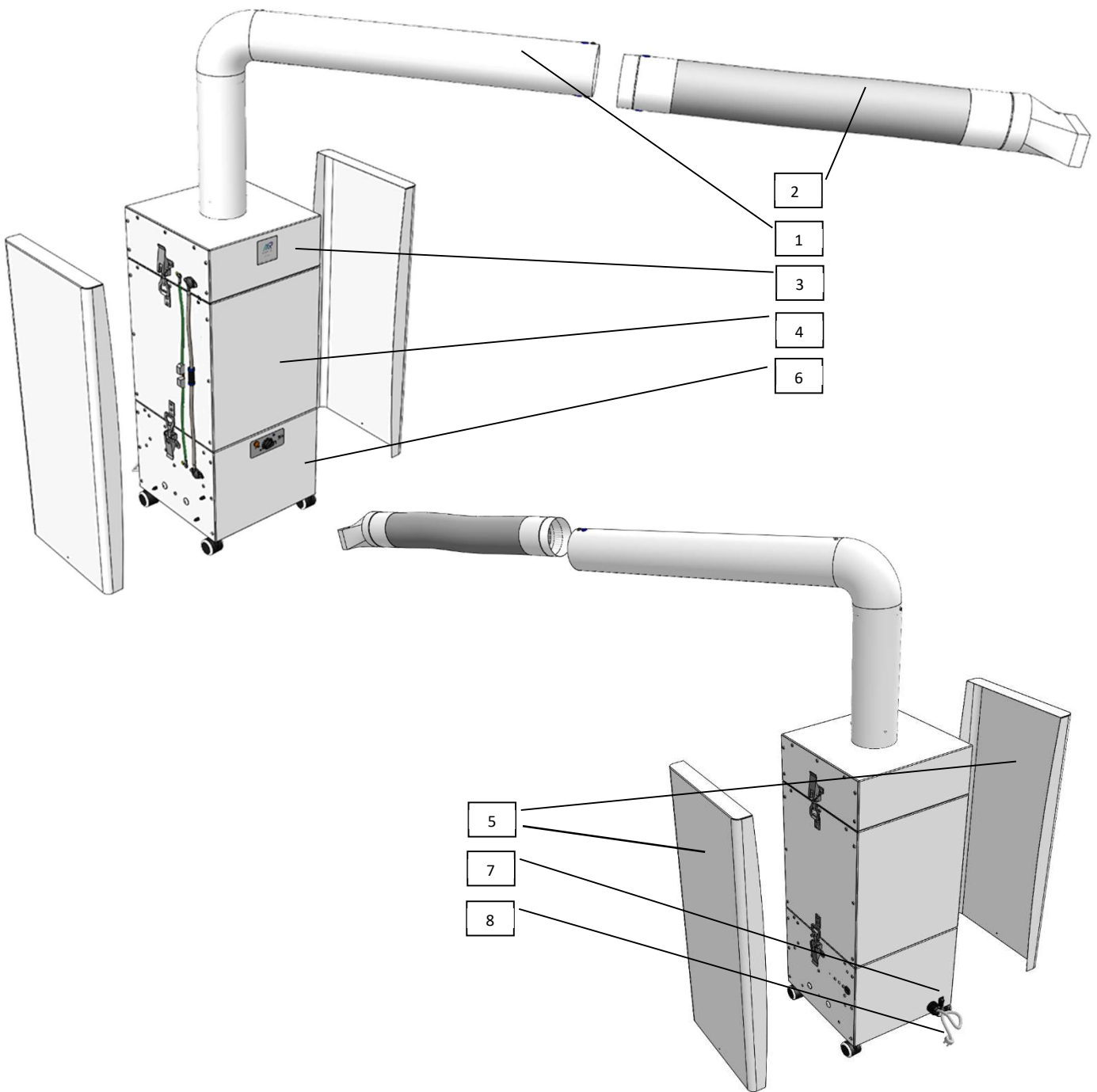


Fig. 1

2.1.1.1. Arm (positions 1 and 2)

- Swivel arm with flexible end terminated by a suction nozzle. Arm material – PVC and ABS plastic. The arm is fully cleanable.

2.1.1.2. Extraction box (position 3)

- 1-mm thick sheet steel construction treated with RAL 9003 anti-corrosion powder paint and protective varnish to increase resistance to disinfection products

2.1.1.3. Filter box (position 4)

- 1-mm thick sheet steel construction treated with RAL 9003 anti-corrosion powder paint and protective varnish to increase resistance to disinfection products Equipped with filters from the factory: Stage 1 - class G1 coarse particle filter; filtration stage 2 - pre-filter class F7 (ISO ePM1 65%, ISO ePM2.5 95%); filtration stage 3 - HEPA H13 (ISO ePM1 99.95%); filtration stage 4 - activated carbon filter to remove odours

2.1.1.4. Design side panels (position 5)

- 1-mm thick sheet steel construction treated with RAL 9003 anti-corrosion powder paint and protective varnish to increase resistance to disinfection products

2.1.1.5. Fan box with control panel (position 6)

- 1-mm thick sheet steel construction treated with RAL 9003 anti-corrosion powder paint and protective varnish to increase resistance to disinfection products The box contains a fan, regulation unit, manometer for measuring filter clogging.

2.1.1.6. Main switch (position 7.)

- main 1-pole "rocker" switch with position symbols: ON I, OFF 0; intended to disconnect the unit from the power supply.

2.1.1.7. Power cable with plug (position 8.)

- flex cord type cable (with integrated plug) 3x1mm², material PVC

2.1.2. Air purifier - MiracleAir 400-B unit

1. EXTRACTION BOX

2. FILTRATION BOX

(COARSE PARTICULATE FILTER + PREFILTER + HEPA FILTER + FILTER WITH ACTIVATED CARBON)

3. DESIGN SIDE PANELS (2 PCS)

4. FAN BOX WITH CONTROL PANEL

5. MAIN SWITCH

6. POWER CABLE WITH PLUG

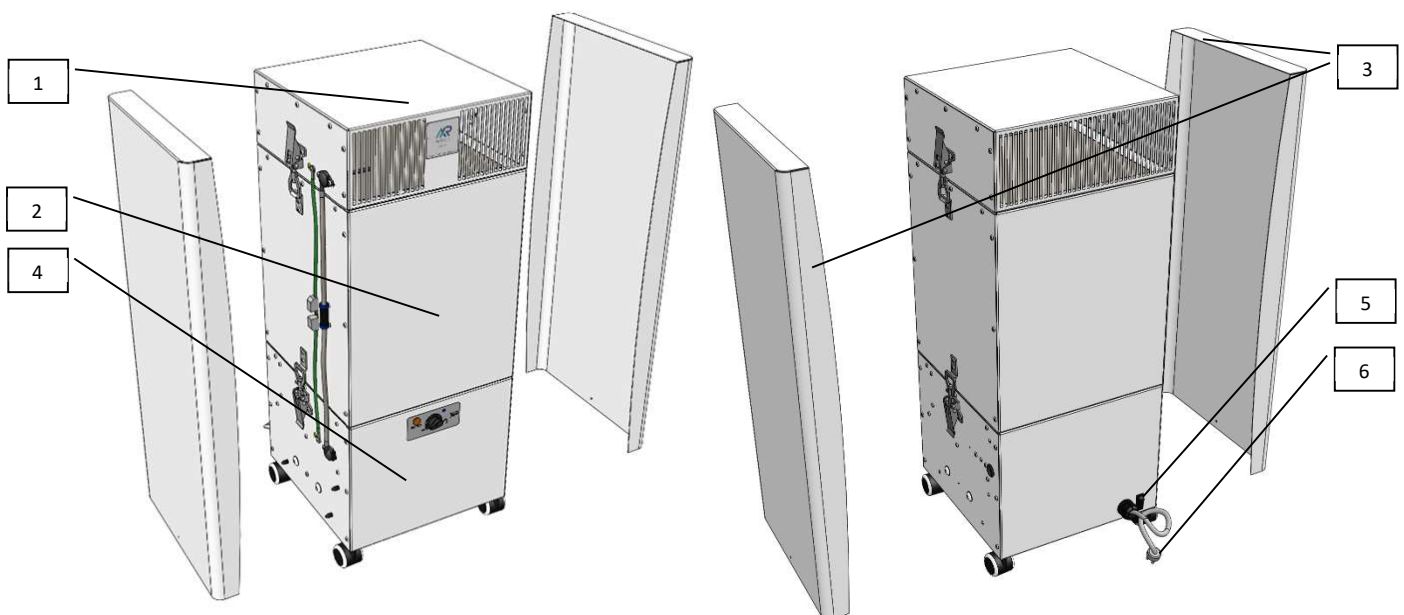


Fig. 2

2.1.2.1. Extraction box (position 1)

- 1-mm thick sheet steel construction treated with RAL 9003 anti-corrosion powder paint and protective varnish to increase resistance to disinfection products

2.1.2.2. Filtration box

- 1-mm thick sheet steel construction treated with RAL 9003 anti-corrosion powder paint and protective varnish to increase resistance to disinfection products Equipped with filters from the factory: Stage 1 - class G1 coarse particle filter; filtration stage 2 - pre-filter class F7 (ISO ePM1 65%, ISO ePM2.5 95%); filtration stage 3 - HEPA H13 (ISO ePM1 99.95%); filtration stage 4 - activated carbon filter to remove odours

2.1.2.3. Design side panels

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2.1.2.4. Fan box with control panel

- 1-mm thick sheet steel construction treated with RAL 9003 anti-corrosion powder paint and protective varnish to increase resistance to disinfection products The box contains a fan, regulation unit, manometer for measuring filter clogging.

2.1.2.5. Main switch (position 7.)

- main 1-pole "rocker" switch with position symbols: ON I, OFF 0; intended to disconnect the unit from the power supply.

2.1.2.6. Power cable with plug (position 8.)

- flex cord type cable (with integrated plug) 3x1mm², material PVC

2.2. Main dimensions of Miracleair aerosol extraction unit and the air purifier

2.2.1. MiracleAir 300-A1 aerosol extraction unit

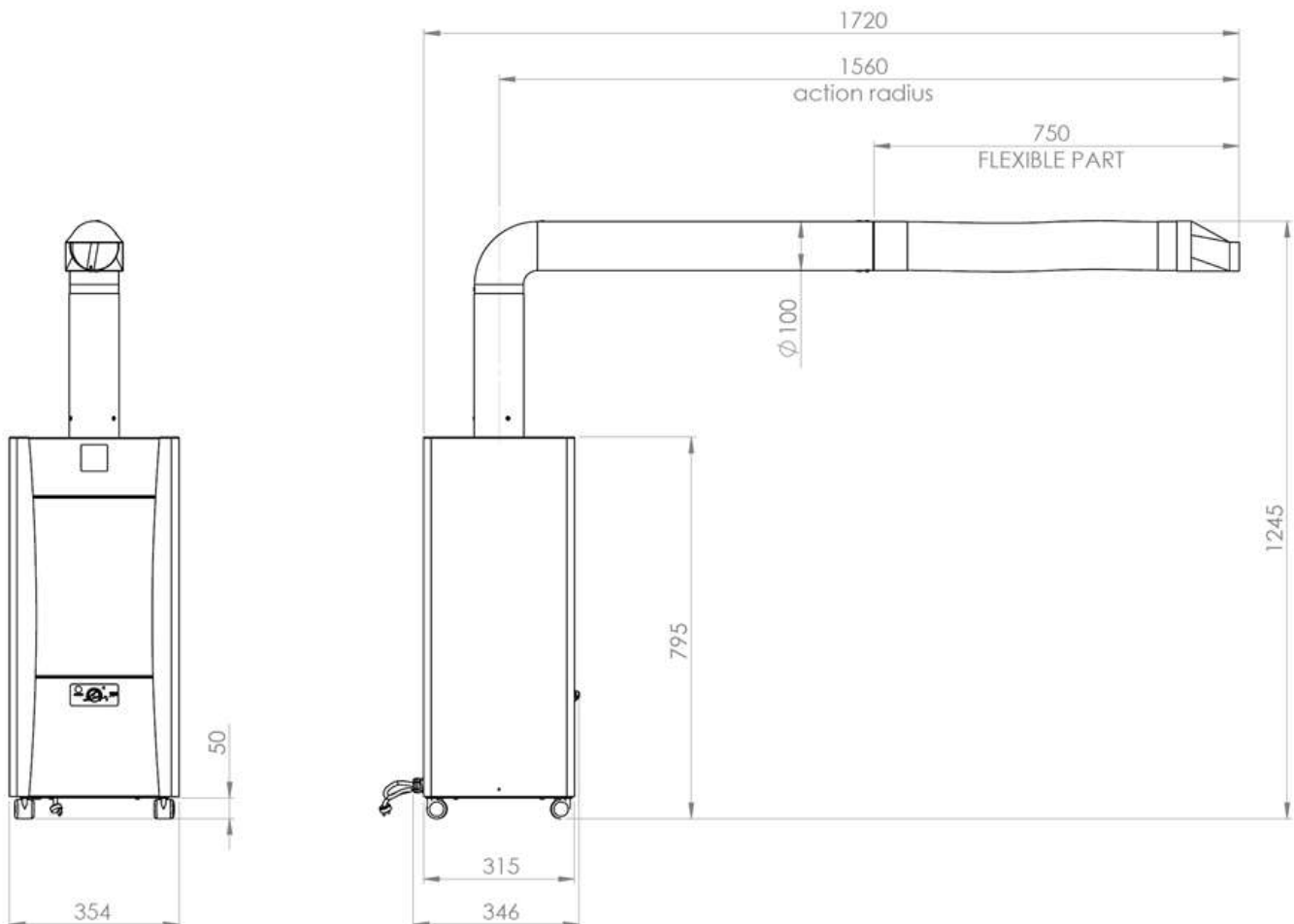


Fig. 3

2.2.2. Air purifier - MiracleAir 400-B unit

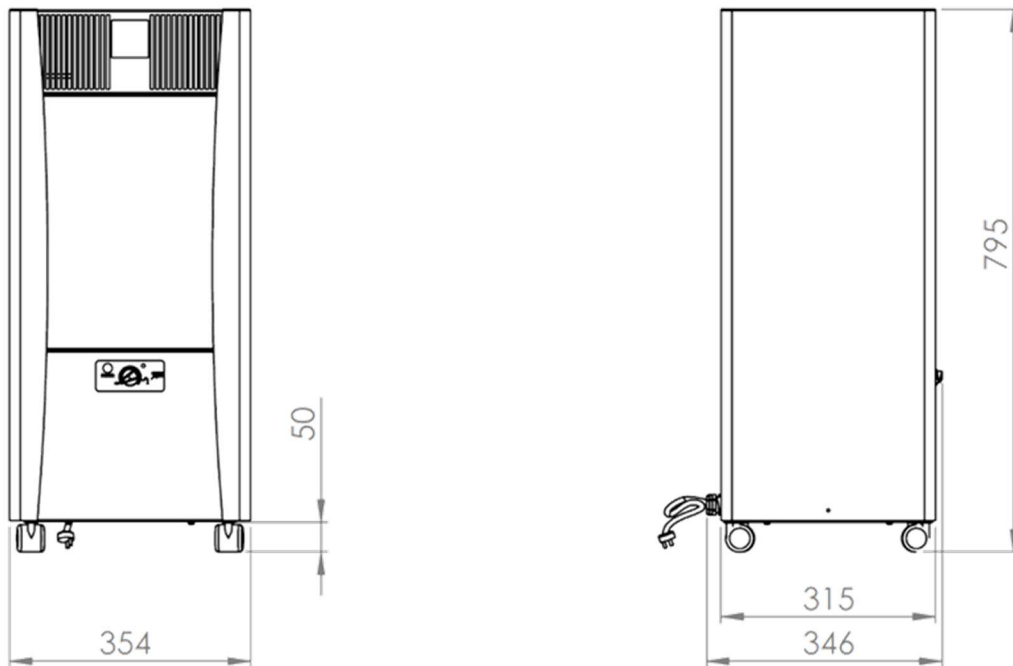


Fig. 4

2.3. Technical parameters of MiracleAir 300-A1 units; MiracleAir 400-B

| | unit | MiracleAir 300-A1 aerosol extractor | | MiracleAir 400-B air purifier | |
|----------------------------|-------------------|-------------------------------------|------|-------------------------------|------|
| | | max | min | max | min |
| Air performance | m ³ /h | 300 | 240 | 410 | 30 |
| Effective suction distance | mm | 350 | 200 | - | - |
| Noise level* | dB(A) | 54 | 50 | 50 | 14 |
| Unit weight | kg | 28 | | 27 | |
| Unit power supply | V/Hz | 1 ~ 230/50-60 | | | |
| Engine power | W | 112 | 68 | 115 | 4 |
| Engine current | A | 1 | 0.62 | 1 | 0.05 |
| Coverage | IP | 20 | | | |
| Sales code | - | MiracleAir 300-A1 | | MiracleAir 400-B | |

* Acoustic pressure level at 3 m, Q = 1

- EC Declaration of Conformity - current and full version of the EC Declaration of Conformity is available on our website www.xvent.cz in the MiracleAir product documents

3. Unit installation

3.1. General information, recommendations and safety when installing MiracleAir unit

3.1.1. Electrical safety before unit installation



- Before starting any installation work, make sure that the intended mains socket is equipped with a protective contact (pin).

- The mains plug must always remain accessible
- Verify that the outlet meets power requirements of the unit (voltage, current, etc.) listed on the production plate of the unit.



3.1.2. Unpacking

3.1.2.1. Unpacking the MiracleAir Unit - box 1

- always unpack the unit in a space large enough to allow for removing the unit from the package.
- Proceed as follows:

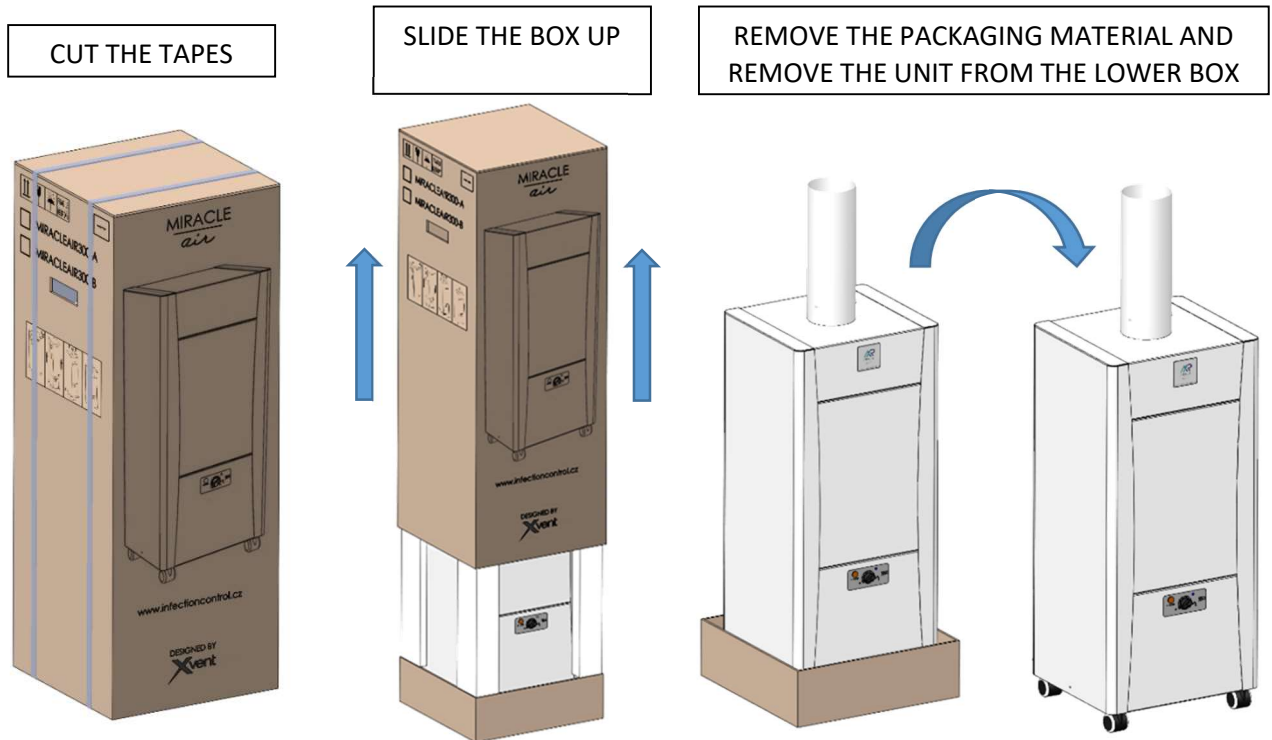


Fig. 5

3.1.2.2. Unpacking the suction arm - box 2 (only in the case of the MiracleAir 300-A1 aerosol extractor)

- Remove the suction arm from the top box as follows:

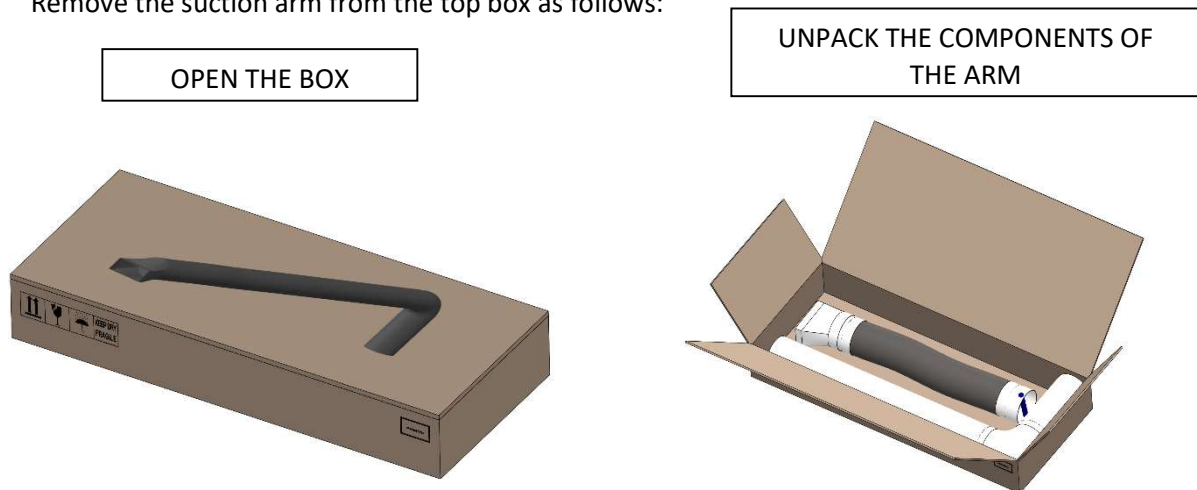


Fig. 6



Please dispose of all the unnecessary packaging via appropriate recycling points, where they will be professionally handled. Only packaging recycled in this way can be reused properly and returned to circulation.



3.1.3. Positioning of the unit

- Place the device on a clean, level, cohesive and dust-free floor.
- Observe the ambient conditions specified in the chapter 1.3.1 – intended use of the unit
- Consider the location for the exhaust air from the bottom of the unit to avoid discomfort during the operation.
- Once in place, always secure the unit against unintentional movement using the wheel brakes (step-down).

3.1.4. Minimum installation distances

3.1.4.1. MiracleAir 300-A aerosol extraction unit

- No minimum distance of the unit body from walls or solid obstacles is specified.
- The minimum distance of the exhaust in the bottom of the unit (under the fan box) from walls or solid obstacles is at least 0.2 m. Failure to observe this distance may result in improper operation of the unit and the damage to the fan or increased noise level of the unit.
- The minimum distance of the suction nozzle from the extraction space is not specified. However, the recommended minimum distance is 0.15 m.
- Consider the fact that vacuum is generated in the suction nozzle, which can result in unwanted objects being sucked in (e.g. sterile tampons, cellulose etc.)

3.1.4.2. Air purifier - MiracleAir 400-B unit

- The minimum distance of the unit from the wall or fixed obstacles is 0.2 m. Failure to observe this distance may result in improper operation of the unit and the damage to the fan or increased noise level of the unit.

3.2. Installation of the MiracleAir unit

3.2.1. Installation of the MiracleAir 300-A aerosol extraction unit

3.2.1.1. Assembling the exhaust arm

- prepare a Phillips screwdriver to assemble the arm
- make sure there is enough space to fold the arm - on the table, on the floor
- slide the arm 1 (fixed) onto the arm 2 (with flexible end) so that the ends of the arms marked with blue circles are oriented towards each other

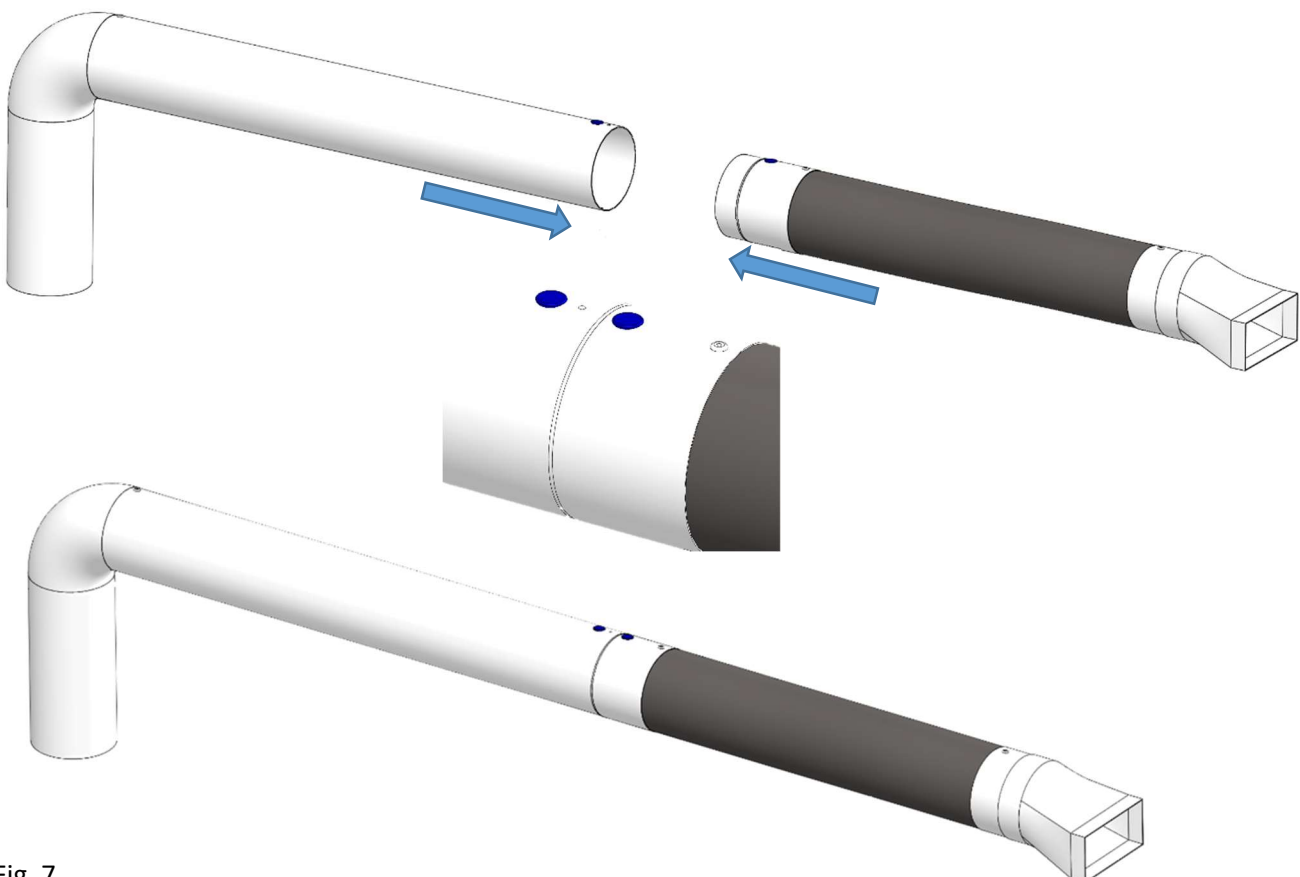


Fig. 7

- fasten the arms using self-tapping screws 4, 2x9 (included in the arm package) into the pre-made hole on each side of the tubed.
- use appropriate force when tightening the screws to prevent damage to the arm tube

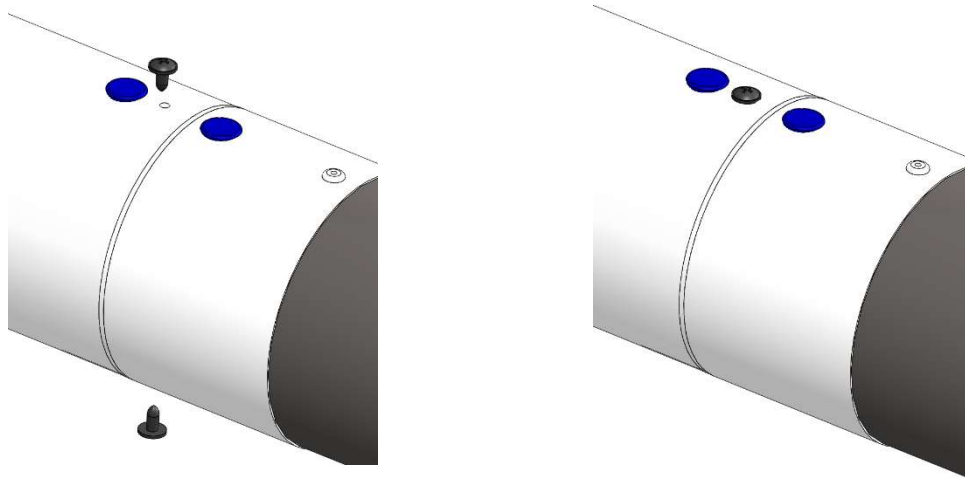


Fig. 8



- **fastening must be done thoroughly to prevent the arm from accidentally disconnecting and resulting damage to the arm and additional possible damage to property or injuries.**
- slide the assembled arm into the tube mounted on the unit

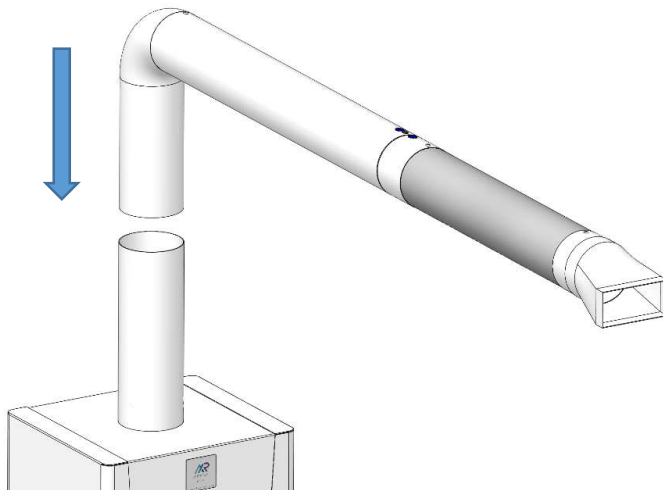


Fig. 9

- check the function of the arm by turning it into any position. Subsequently, check the positioning functionality of the flexible arm end by setting into any position. In case of need to extend the flexible part of the arm, pull at it to extend it by approx. 15 cm. Turning, positioning, and extending of the arm should be possible without using excessive force.

3.2.2. Installation of a protective sleeve

- The sleeve is disposable and is used for easier disinfection of the exhaust arm.
- To pull the protective sleeve on the unit, follow this procedure:
 - a) Unwind and tear the protective sleeve from the supplied package
 - b) Slide the protective slide on the exhaust arm in the direction away from the exhaust nozzle and secure it using a clamping clip (included in the package) on each end of the arm.



Fig. 10

3.2.3. Installation of air purifier - MiracleAir 400-B units

- No further installation is required after unpacking and positioning Miracleair filter unit.

3.3. Electrical installation - connection to the electrical network

3.3.1. General information - safety



- Before starting the installation, make sure that the mains socket you intend to use to connect the unit is equipped with a protective contact (pin).
- The mains plug must always remain accessible so that the unit may be safely disconnected from the mains in the event of danger.
- Verify that the outlet meets power requirements of the unit (voltage, current, frequency etc.) listed on the production plate of the unit.
- The relevant circuit must be protected in the power supply to maximum of 16 A.
- The mains cable must not be broken.
- Local electrical regulations must always be observed
- When handling the unit, disconnect the device from the mains first (pull out the mains socket)
- It is forbidden to tamper with the internal wiring of the unit in any way
- This unit belongs to the product group with type Y connection. If the mains cable is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a high-risk situations.
- The supply voltage to the fan 1~230V / 50-60Hz must not be altered in any way. Otherwise there is a risk of damage to the unit fan.

3.3.2. Mains connection

- the unit is supplied with a power supply cable with a flex plug with a protective contact. The length of the mains cable is 2.7 m.
- The unit is equipped with a 1-pole mains switch, which can be used to switch the power supply on and off.
- Connecting the unit to the mains does not require any further electrical connections, interconnections.

3.3.3. Labelling of electrical parameters

- all electrical parameters of the unit are shown on the production label

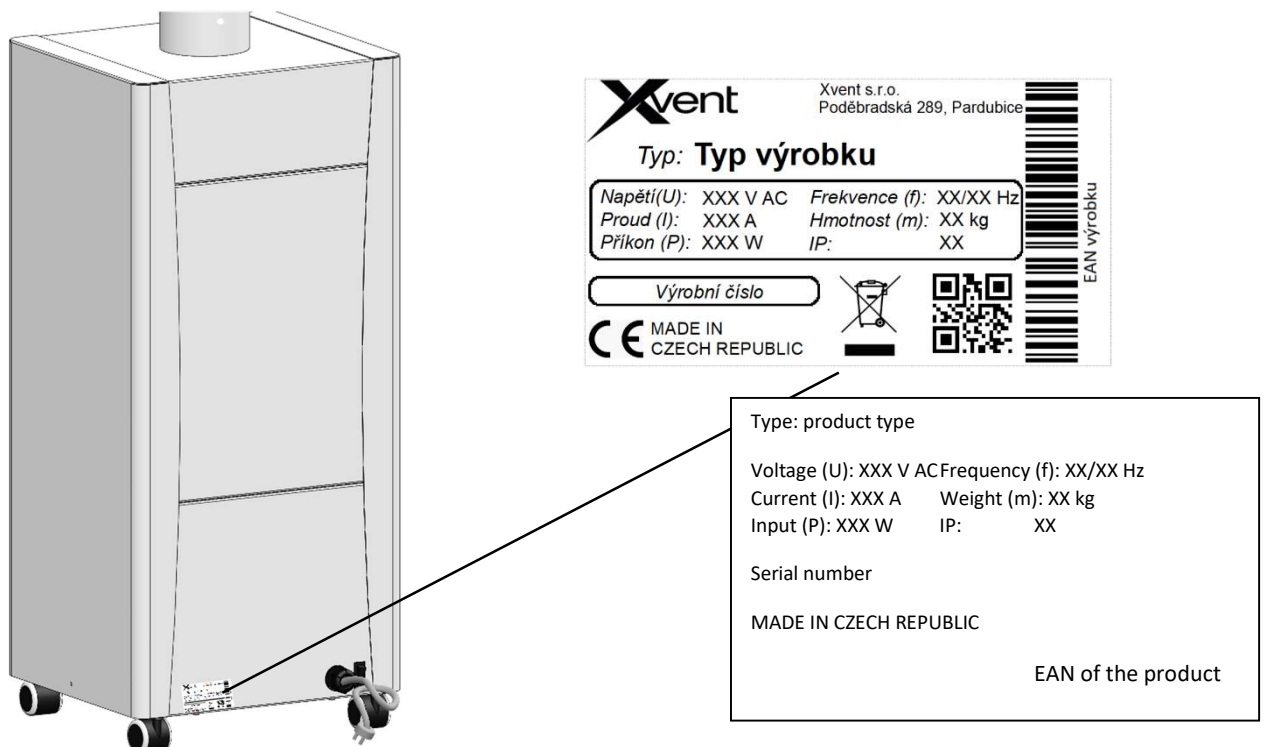


Fig. 11

4. Regulation - unit control

4.1. General information - safety



- Regulation is integrated into the body of the unit. Any manipulation other than specified in this manual is prohibited.
- All control elements located on the body of the unit, which are designed for user control, are powered by 10VDC (safe voltage).

4.2. Controls

4.2.1. Main control panel

1. MAIN CONTROL (KNOB)
2. SIGNAL LED
3. FILTER CLOGGING WARNING INDICATOR

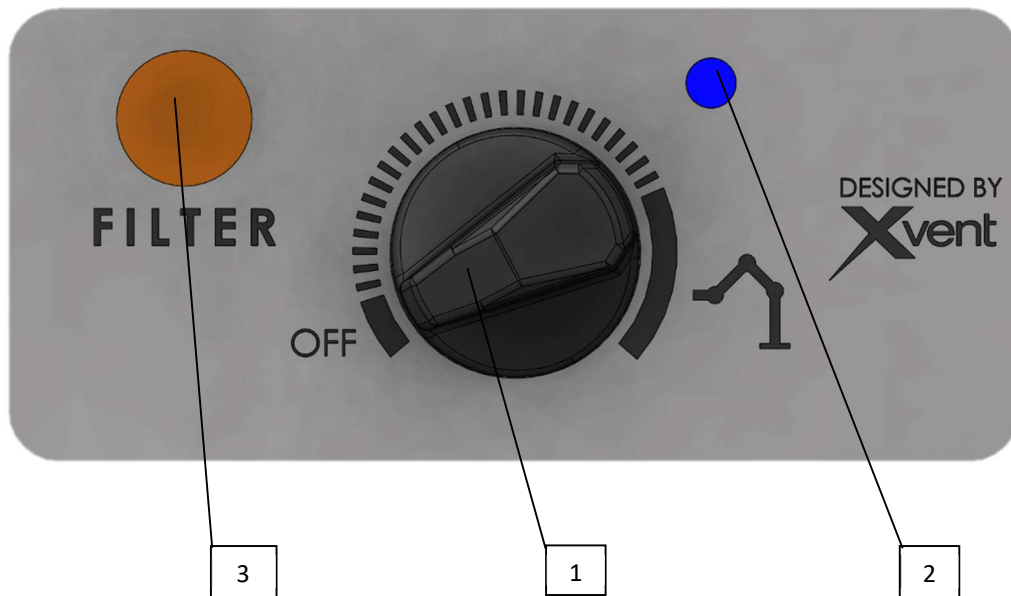


Fig. 12

4.2.1.1. Main control - knob (position 1)

- The main control (know) allows for continuous adjustment of the power of the unit in any position from the minimum to maximum power according to the user's requirements.
- The "OFF" position switches the entire unit off.



- **The "OFF" position does not disconnect the unit from the power supply (the unit may be disconnected from the mains using the main switch located on the back of the unit or by unplugging the power cord from the power outlet)**

4.2.1.2. Signal diode

- Indicates operation of the unit. If the LED is ON, the unit is active. If it is not lit, the unit is turned off

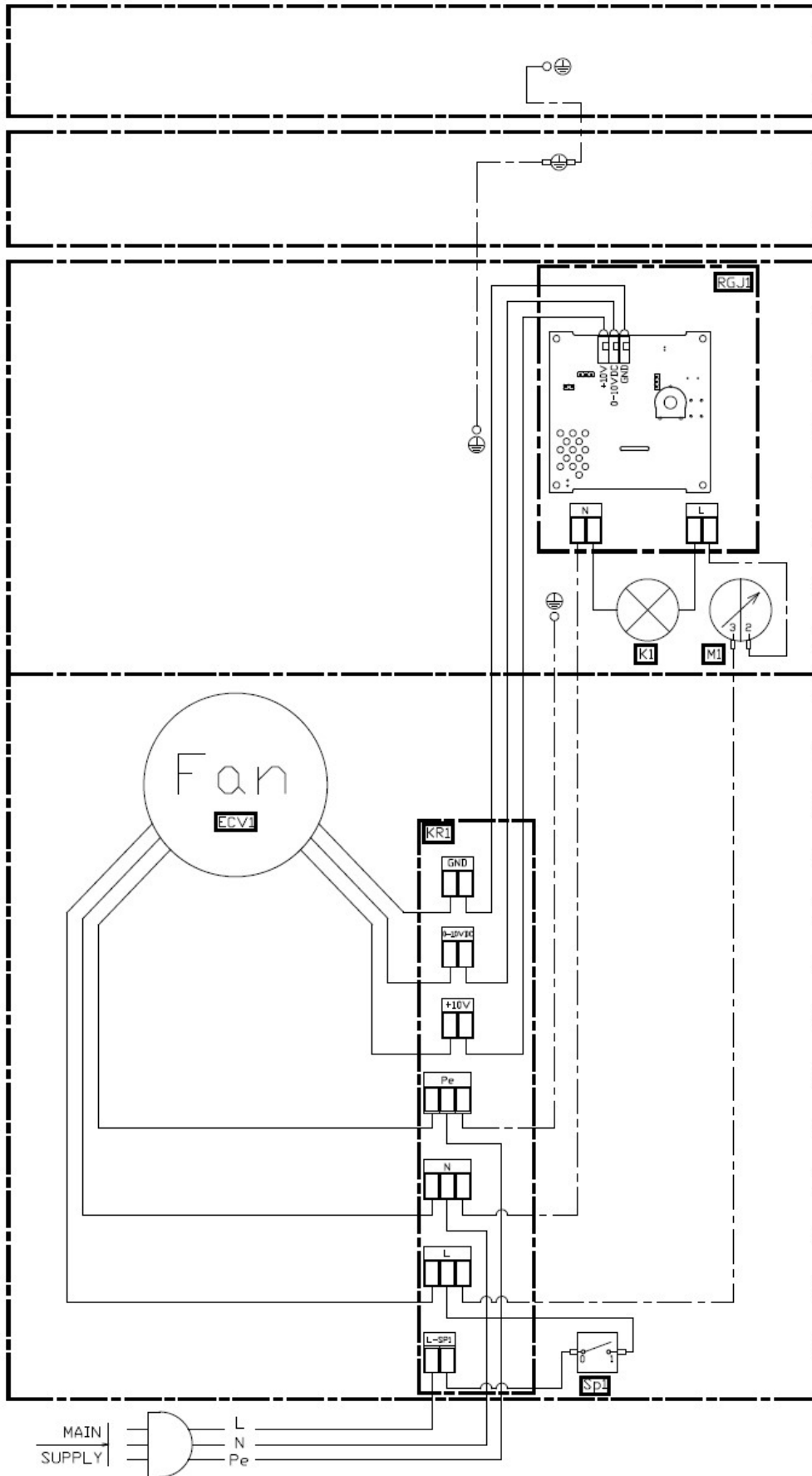
4.2.1.3. Indicator of filter box clogging - signalisation of need for filter box replacement

- The orange indicator activates when the filter box is clogged. At the same time, it informs the user about the need to replace the filter box (box replacement is described in the chapter 7.1.2. filter box replacement).
- The indicator activates automatically depending on the current, actual clogging of the filter box, which is set by the manufacturer.
- One of the parameters that affect the activation of the indicator is also power-flow the whole unit is operated at. In general, the smaller the power-flow of the unit, the longer the time for indicator activation (the less air is filtered).

5. Wiring diagram of MiracleAir units

- internal wiring diagram of the unit

Fig. 14



6. Commissioning

6.1. Before the first operation, check the following:

- All fixation elements used during transport have been removed
- The mains cable of the unit is properly connected to the mains

6.2. Switching on

- Turn the main power switch at the back of the unit from the position 0 to the position I
- Turn the main control element (knob) to approximately central position of the output scale (vertical)
- A blue signal diode on main control panel will light up, signalling the unit is running
- The unit will start increasing output to the set value. Unit fan start-up can take approx. 5 sec.
- Set the arm to the supposed operating position. If necessary, the arm may be extended by 15 cm in the flexible part to increase its reach.
- Use adequate force when adjusting the arm to the desired position to avoid damage to the arm or tipping the unit over.
- After starting the unit for the first time, check the basic performance of the unit

6.3. Setting the correct power of the unit

6.3.1. Setting the output of the MiracleAir 300-A aerosol exhaust

- The setting of the effective extraction power is displayed on the scale of the main control (knob) by the symbol of the suction arm; effective extraction power is marked in dark colour.

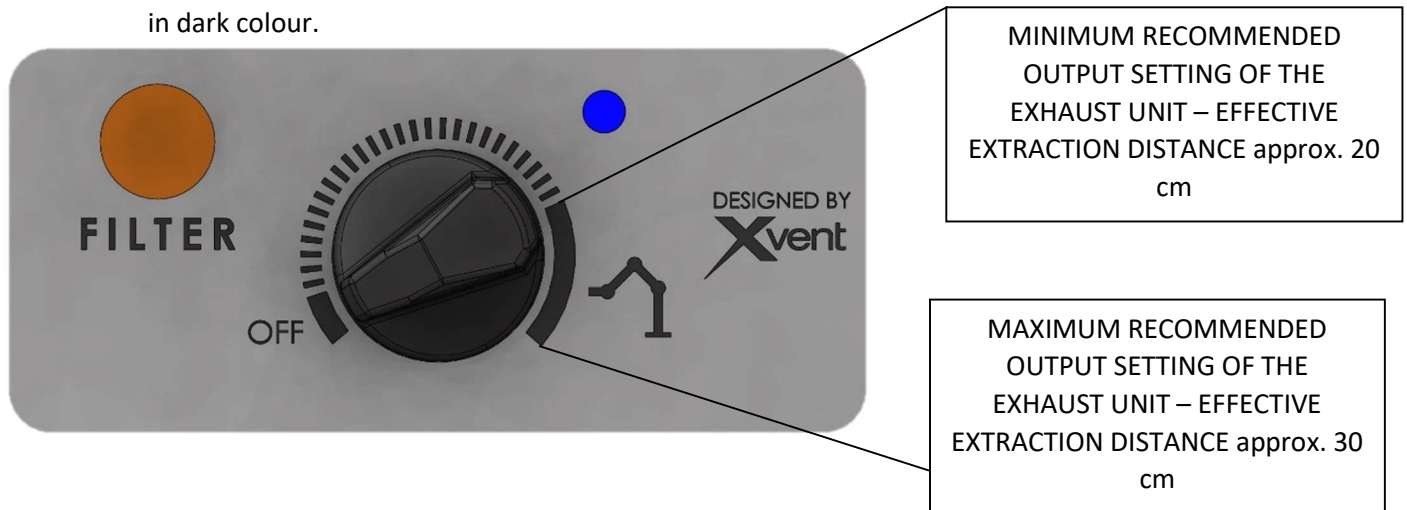


Fig. 15

6.3.2. Setting the output for the air purifier - MiracleAir 400-B unit

- Use the main control (know) to adjust the filtration performance in the entire range of the scale.
- To select the desired performance for your filter unit, always consider the space it will operate in.
- Select the appropriate unit output based on area of the space to be filtered.

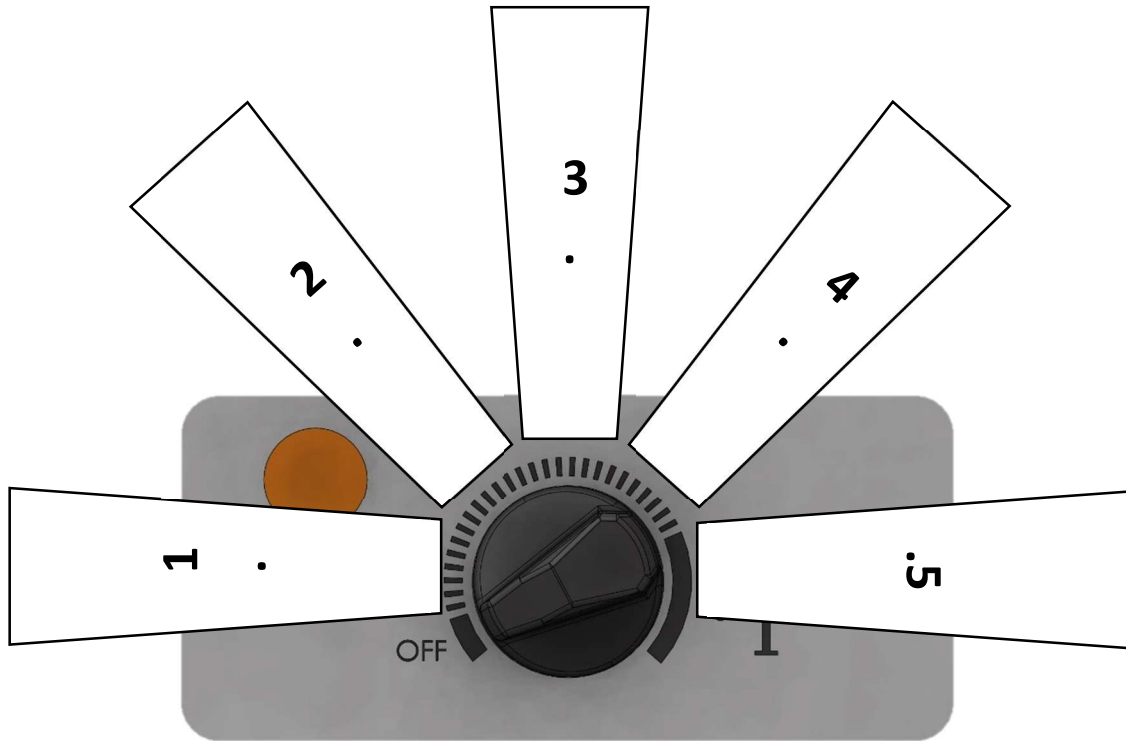


Fig. 16

| Conversion to air exchange in 1 hour in a standardized room of 25 m2 with a ceiling height of 2.5 m | | | | | | |
|---|------|-------------------------------------|-----|-----|-----|-----|
| | | Possible settings on the unit panel | | | | |
| | | 1. | 2. | 3. | 4. | 5. |
| Multiple air exchange in 1 hour | | 0,5 x | 1 x | 3 x | 5 x | 7 x |
| Air output | m3/h | 30 | 70 | 180 | 310 | 410 |

| Conversion to air exchange with respect to the floor area of the room with a ceiling height of 2.5 m | | | | | | |
|--|------|-------------------------------------|----|-----|-----|-----|
| | | Possible settings on the unit panel | | | | |
| | | 1. | 2. | 3. | 4. | 5. |
| Floor area | m2 | 12 | 30 | 70 | 120 | 160 |
| Air output | m3/h | 30 | 70 | 180 | 310 | 410 |

7. Regular maintenance and cleaning of Miraclear units



- Before any maintenance and cleaning of the unit, the unit must be disconnected from the power supply – unplug the mains cable.

7.1. Regular maintenance – inspection

7.1.1. General information

- Perform a regular visual inspection of particulate filter clogging (top filter in the filter box). The filter also captures inadvertently sucked components, which can significantly reduce the extraction power of the unit.
- Always perform the regular inspection of the unit when replacing a dirty - old filter box with a new one. Filter replacement is described in a separate chapter 7.1.2.

- If the unit does not require the replacement of filters more often than once a year, the unit must be inspected regularly, at a maximum interval of once every 12 months or at intervals determined by the relevant national regulations or practices.
- If the unit is not used for longer time, it is necessary to turn off the supply voltage to the unit.
- Service work beyond normal maintenance may only be performed by the manufacturer.
- Regular maintenance must include:
 - o Visual inspection of the unit housing, mechanical components
 - o Visual inspection of the arm, in particular the locking screws
 - o Visual inspection of the mains cable
 - o Check that the pressure measuring hose is correctly connected at the pressure coupling and at the measuring points.
 - o Check that the pressure caps are tightened correctly – they must not be loose. If necessary, the cap must be opened – then tighten the clip by 1 turn (360°) and then re-tighten it. Always tighten the pressure caps one at a time.
- The unit is designed and manufactured so that it does not require any special maintenance

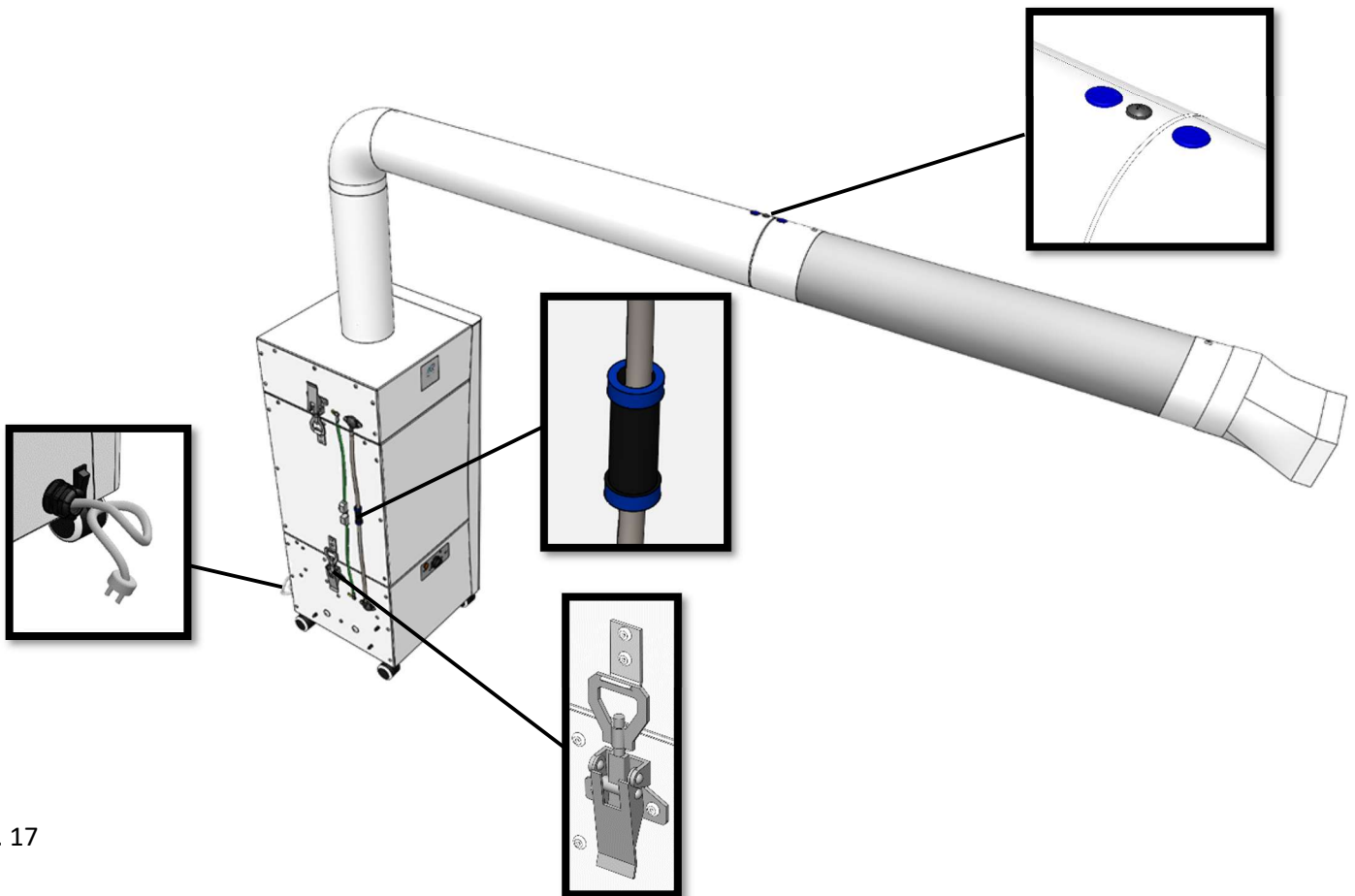


Fig. 17

7.1.2. Filter box replacement



- **The filter box may contain dust particles, bacteria and viruses, so it is necessary to use appropriate protective equipment to prevent contamination or contact with harmful substances. When carrying out any work with the filter box, we recommend to use at least disposable polypropylene gloves and a fine dust protective mask (protection level 3).**
- The need for replacement of the filter box is indicated on the main control panel by the orange indicator for filter box clogging
- The indicator activates whenever the filter box is clogged as set by the manufacturer.

- Clogging of the filter box and subsequent activation of the indicator depends on the environment where the unit operates. In particular on:
 - o Ambient air dust load - the more dust particles are in the air, the sooner the filter box becomes clogged
 - o Operating power of the unit - the more air the unit filters, the sooner the filter box becomes clogged



- After the light comes on, immediately replace the filter box with a new one, as follows:
 - a) Switch off the unit using the main control (knob) to the OFF position and the main switch from the back of the unit to the position 0.**
 - b) Disconnect the unit from the power supply by removing the plug of the mains cable from the socket**
 - c) Remove the side covers from the side of the unit.



Fig. 18

- d) Disconnect the connectors for switch connection, earth connectors and for connectors for the hose from the side of the unit

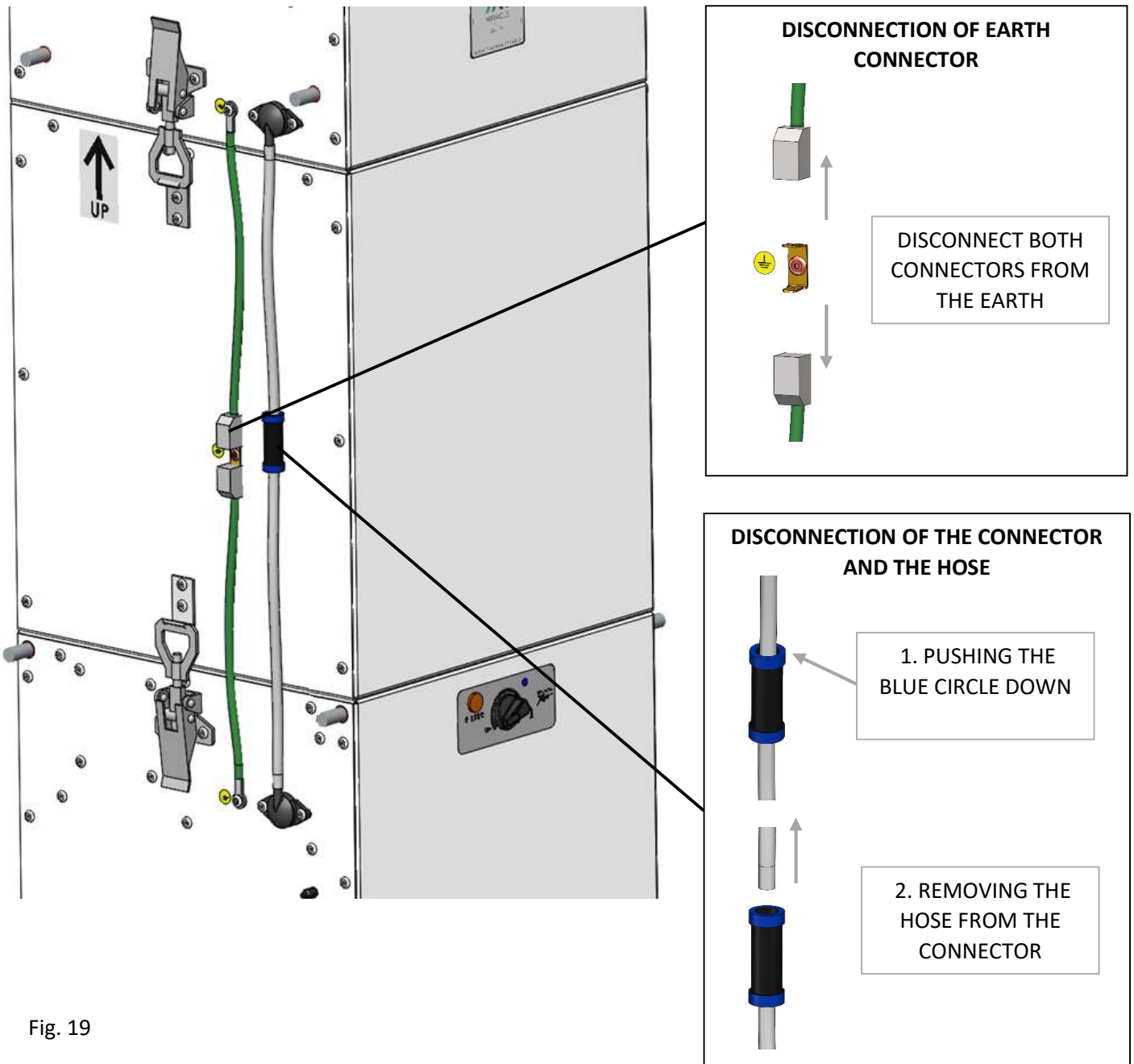


Fig. 19

- e) If operating the unit with a suction arm, slide the arm out and store it in a safe place to prevent damage.

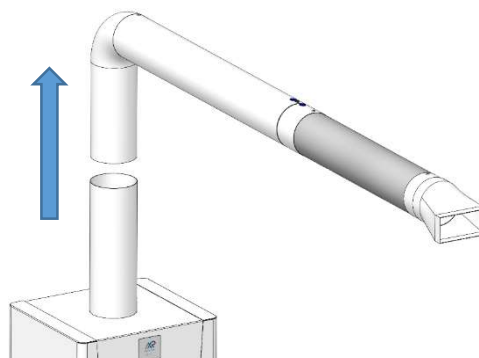


Fig. 20

- f) Release the pressure caps on the extraction box of the unit and release them from the hook on the filter box. Store the extraction box in a safe place to prevent damage.

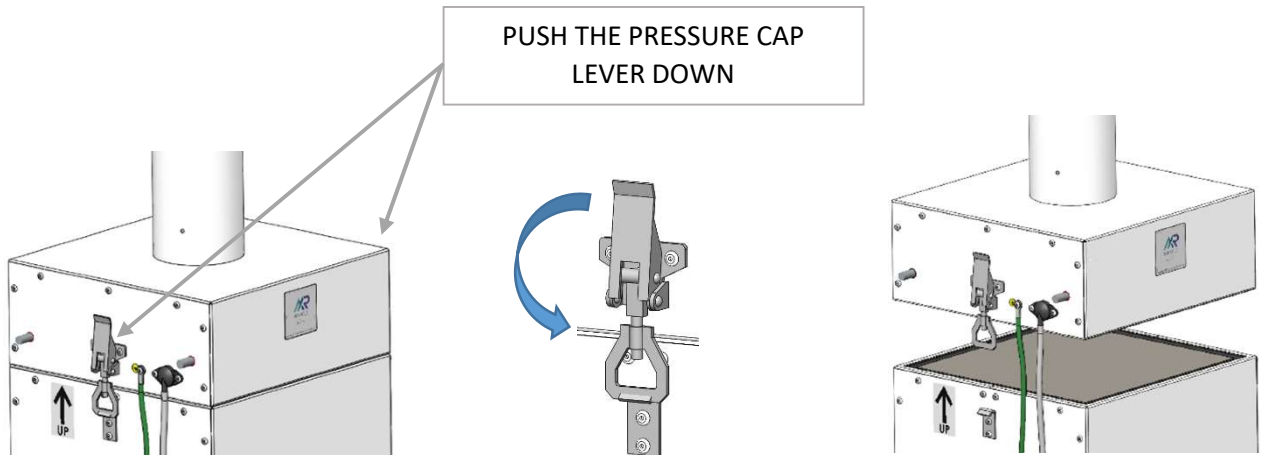


Fig. 21

- g) Release the pressure caps on the fan box of the unit and release them from the hook on the filter box.

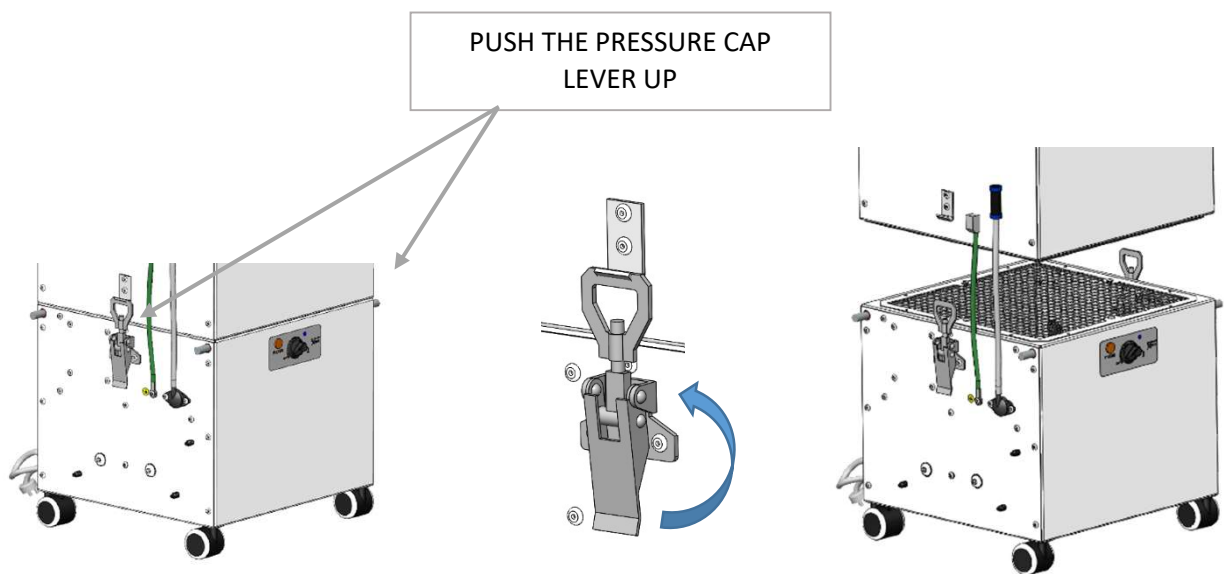


Fig. 22

- h) Remove the plastic bag from the packaging of the replacement filter box and slide it on the clogged filter on the unit.



Do not clean the filter box! Tapping on it or blowing through it with compressed air destroys the filter medium and harmful substances which are trapped in the box will be released into the air in the room.

- i) Lift the clogged filter and wrap it in the plastic bag. Always touch the filter from the bottom in the direction away from the fan box (clean side of the clogged filter). Use a cable tie (included in the package with the replacement filter box) to close the bag with the clogged filter box. Put the covered filter box in the bag back into the box.



Fig. 23



Store the clogged filter box in a safe place for 3 days (virus inactivation) and then dispose of it as mixed waste according to local regulations.

- j) Install a new filter box. The arrow on the filter box must point upwards. Take care to avoid damage the the seal on the filter box and follow the proper positioning on the fan chamber.

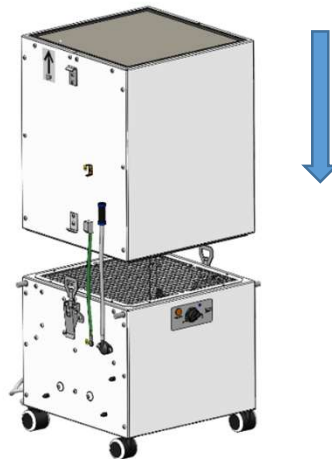


Fig. 24



Always replace the filter box with an original filter box. This is the only way to guarantee the correct function of the product.

- k) Tighten the pressure caps between the fan and filter box using adequate force. Each new filter box is equipped with a new seal to keep the entire assembly tight. If the pressure cap cannot be tightened or excessive force is necessary, loosen the cap clip on the thread by 1 turn and repeat the tightening process. If excessive force is used to tighten the cap, it or the unit body may get damaged.

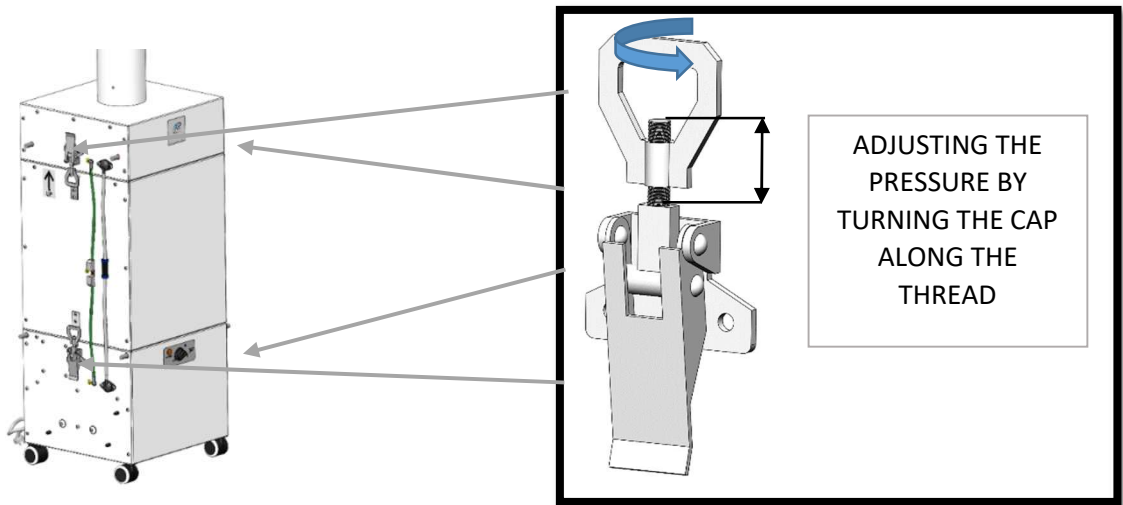


Fig. 25

- l) Place the extraction box on the filter box and tighten the pressure caps between it and the filter box. Take care to avoid damage the the seal on the filter box and follow the proper positioning on the filter box. Each new filter box is equipped with a new seal to keep the entire assembly tight. If the pressure cap cannot be tightened or excessive force is necessary, repeat the procedure and adjust the pressure as in the previous point k)

- m) Attach the extraction box to the suction arm (only for the version of the unit with suction arm)

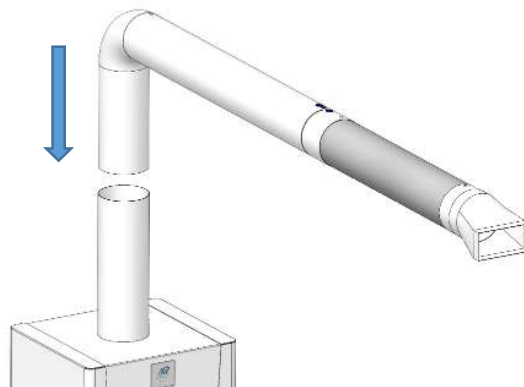


Fig. 26

- n) Connect the connectors for switch connection, earth connectors and for connectors for the hoset. Always make sure that the connectors are fitted correctly.

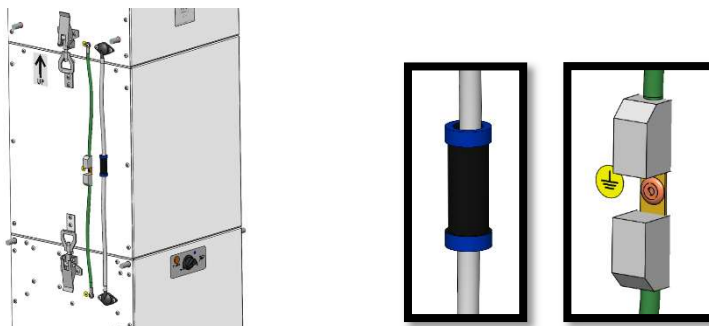


Fig. 27

- o) Put the sheet metal sides on the sides of the unit.

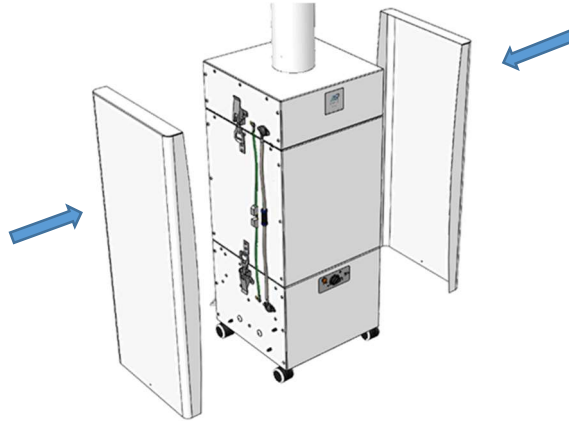


Fig. 28

- p) Put the unit into operation according to point 6.2. Switching on

7.1.3. Replacement of protective sleeve (only for the version with suction arm)

- Replace the protective sleeve as required according to the procedure described in chapter 3.2.2.

7.2. Cleaning the unit

7.2.1. General information



- **When cleaning the unit, it is necessary to use appropriate protective equipment (e.g. gloves) to prevent contact with any harmful substances.**
- **Do not use compressed air, solvents or sharp objects to clean the unit.**
- Use a damp cloth with a general cleaning agent (soapy water) to clean the unit and the suction arm from coarser dirt (dust).
- Use standard non-aggressive disinfection to disinfect the unit and arm surfaces.

7.2.2. Cleanable surfaces

- The unit and the suction arm may be cleaned over their entire outer surface.
- The extraction outlet may be cleaned both from the inside and from the outside.
- The unit may be cleaned from the inside only at the extraction box. When cleaning, take care not to damage the components protruding into the inner space of the extraction box (pressure measurement point).
 - o The procedure for removing the extraction box from the unit is described in the points 7.1.2.a) to f).
 - o The procedure for installing the extraction box back on the unit is described in the points 7.1.2.l) to p)

8. Service



- **warranty and non-warranty repairs are provided by the manufacturer at the registered office of the manufacturer or according to the agreement.**
- **The manufacturer reserves the right to make changes to the device, which will not affect the essential performance of the device.**

8.1. Troubleshooting

| Problem | Possible cause of the malfunction | Recommended action |
|--|--|---|
| The unit does not start | Network cable is not connected | Connect the network cable |
| | Main switch is in position 0 | Turn the switch to position 1 |
| | Main control (dial) is in position OFF | Turn the dial from the OF position |
| Filter box clogging indicator is ON | Filter box is clogged | Replace the filter box with a new one Filter replacement is described in the chapter 7.1.2. |
| No or low suction power | Filter box clogged by auxiliary medical supplies | Remove the side panels, arm and extraction box. Remove the trapped material on the surface of the filter box. |
| | Clogged suction arm | Remove the arm from the unit (described in the chapter 7.1.2.e) and clean the arm |
| The unit is too noisy | The suction area (arm) is clogged | Remove the arm from the unit (described in the chapter 7.1.2.e) and clean the arm |
| | Filter box clogged by auxiliary medical supplies | Remove the side panels, arm and extraction box. Remove the trapped material on the surface of the filter box. |
| | Defective bearing in the engine | Fan replacement required – contact the supplier |
| The device runs irregularly or vibrates strongly | Fan axis off, defective bearing | Fan replacement required – contact the supplier |

8.2. Error persists

- Never attempt to repair the unit yourself in the event of a persistent unit failure.
- Switch off the unit using the main switch and disconnect it from the mains.
- Prevent repeated restarting of the unit or manipulation by an unauthorized person.
- Contact your dealer

9. Decommissioning, dismantling and recycling

- At the end of the service life of the device or when the repairs would not be economically viable, disassemble the machine completely.
- When disassembling the machine, it is necessary to observe generally applicable safety regulations to safely perform all work.
- After the complete disassembly of the machine, the individual parts are to be disposed of in accordance with the requirements of the waste act no. 185/2001 Coll., as amended.
- Sort the metal parts according to the type of metal and hand them over to the relevant organisation handling the collection of secondary raw materials.
- The plastic parts, which will not decompose naturally, are to be sorted and offered for sale to an organisation involved in the collection of these secondary raw materials.
- Electrical components shall be handed over to an organisation responsible for the collection of electrical waste.



Please dispose of all the unnecessary or used products via appropriate recycling points, where they will be professionally handled. Deposit all unusable parts of the product at a controlled landfill. Only a product recycled in this manner can be correctly reused and made useful again.



10. Warranty

We do not guarantee the suitability of the unit for special purposes; the determination of suitability is fully in the competence of the customer. Unit warranty is valid according to legal regulations. The warranty is only valid if all the installation and maintenance instructions are followed. The warranty covers manufacturing defects, material defects or malfunctions of the device.

The warranty does not cover defects caused by:

- improper handling
- during transport (damage caused by transport and eventual financial compensation must be handled with the carrier)
- non-compliance with the installation conditions
- faulty electrical connection or fuse
- incorrect operation
- alterations to the product
- usual wear
- caused by natural disaster

When claiming the warranty, it is necessary to submit a report (available in the product documentation), which contains the following:

- data on the complainant / company
- date and number of the sales document
- detailed description of the failure
- information on socket protection
- photo of the production label or serial number of the product
- photo from the installation site of the product
- measured values of the product: air temperature, voltage, current

The warranty repair is handled at the registered office of the company or according to agreement. The method of handling the warranty repair is solely at the discretion of the service personnel of the company. The complaining party will receive a written statement on the result of the complaint - warranty repairs. The complaining party pays all associated costs in the event of an unjustified complaint.

11. In conclusion

If you have any questions about this product, do not hesitate to contact us.

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