FläktGroup

# AP BIO 400/500/1000/2400 AIR PURIFIER

INSTALLATION, OPERATION AND MAINTENANCE MANUAL

# 1 Unit type code

**FläktGroup AP BIO Series**

| AP | 04 | . | B | S | C | A | 00 | Z | AP | 04 | FB |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Product line | Size | | Filter set | Control system | Fan control | Design (frame) | Additional features | Accessories | Product line | Size | Type |

| | |
|---|---|
| **Product line** | AP BIO |
| **Size** | 04 - 400<br>05 - 500<br>10 - 1000<br>24 - 2400 |
| **Filter set** | B - biological (anti virus & bacteria) |
| **Control system** | S - standard |
| **Fan control** | C - constant flow |
| **Design (frame)** | W - white |
| **Additional features** | 00 - without |
| **Accessories** | ZAP - AP BIO |
| **Size** | 04 - 400<br>05 - 500<br>10 - 1000<br>24 - 2400 |
| **Type** | Filters<br>FS - biological filter ISO ePM1 55% (F7) + HEPA filter (H14), set for 1 unit<br>FP - pre-filter (ISO ePM1 55% (F7), set for 1 unit<br>FB - biological HEPA filter (H14), set for 1 unit |

# 2 Overview of Units and Packaged Content

## 2.1 Series

For detailed information on individual unit series refer to the data sheets or the quotation text for the unit.

## 2.2 Packaged content

The following components are included in the packaged content:

– **Unit** according to designation on the unit identification plate
– Operation manual including all information on the supplied unit
– Possible **accessories** and special equipment (only if ordered). Consider supplied operation and installation manuals for accessories supplied separately

**Notice!**
Use only provided order-related documentation for commissioning, maintenance and servicing of the unit. It is not allowed to use general data, since they may not take actually installed individual components and special accessories into account.

# 3 Safety and User Information

This is an original operation manual verified by the manufacturer. FläktGroup AP BIO series units are constructed using state-of-the-art technology and according to recognized safety regulations.

Use the FläktGroup units only in a technically sound condition for the intended purpose, observing the current operation manual and taking safety aspects and potential hazards into account. Failure to follow the instructions in this manual may result in danger to health and safety, damage to materials and incorrect unit operation. Have all faults repaired by an authorized specialist without delay!

| | ***ATTENTION*** |
|---|---|
|  | **Damage to the unit!**<br>In case of alarms and faults, always make sure that the cause of the error is identified. In particular, a manual reset of an alarm without first rectifying the cause can damage the unit and invalidate the warranty. |

## 3.1 Availability of the operation manual

This operation manual contains important instructions regarding safe and proper operation of the FläktGroup unit.

This operation manual must be available at the installation site of the unit at all times. Anyone who works with or on the unit must read and observe this operation manual.

The operation manual is intended for use by fitting and installation companies, building services engineers, technical personnel or trained persons as well as electrical specialists.

## 3.2 Scope of the operation manual

This operation manual provides information about the following:

– Assembly/disassembly
– Use and operation
– Maintenance and Troubleshooting

## 3.3 Symbols used

The following symbols are used to highlight particular text sections in this operation manual:

– This symbol is used for normal lists.
• This symbol indicates instructions to follow.
✓ This symbol indicates the result of an action.

**Notice!**
Additional details on using the units are specified here.

**Recycling!**
This symbol is used to highlight instructions on proper reuse of packaging material and disused components and assembly groups (separated according to recyclable materials).

## 3.4 Identification of safety instructions

The following designations/symbols are used in this manual to specify safety instructions:

### 3.4.1 DANGER – Death/serious irreversible injury

**⚠ DANGER**

Indicates an (extremely) hazardous situation which **will result in death or serious irreversible injury** if the safety instructions are not followed.

*Example:*

**⚠ DANGER**

**Electrocution through hazardous voltage will lead to death or serious injury.**

- Disconnect the unit from the power supply and ensure the power cannot be switched back on.
- Ensure the unit is voltage-free and isolated, earth and short circuit the unit, cover or shield off neighboring live components.

### 3.4.2 WARNING – Death/serious injury

**⚠ WARNING**

Indicates a hazardous situation which **can result in death or serious irreversible injury** if the safety instructions are not followed.

*Example:*

**⚠ WARNING**

**Warning of contaminated filter surfaces!**
When working on the unit or in case of damage to the components, there is a health risk injury the contaminated filter surfaces.

- Wear protective clothing and safety goggles
- Wear protective mask
- Exercise due caution and attention when carrying out this work.

### 3.4.3 CAUTION – Minor or moderate injury

**⚠ CAUTION**

Indicates a hazardous situation which **can result in minor or moderate injury** if the safety instruction is not followed.

*Example:*

**⚠ CAUTION**

**Sharp corners and edges can cause injuries!**
There is a risk of cuts on thin edges when cleaning or maintaining the unit.

- Wear resistant gloves.

### 3.4.4 ATTENTION – Environmental or material damage

| ***ATTENTION*** |
|---|

Indicates actions that can result in damage to equipment or property.

*Examples:*

| | ***ATTENTION*** |
|---|---|
|  | **Environmental damage!**<br>Heavily contaminated filters can have a negative impact on production processes. Depending on the filtered-out materials, contaminated filters are therefore classified as hazardous waste and must be properly disposed of according to the prevailing directives and laws. |

| | ***ATTENTION*** |
|---|---|
|  | **Damage through static discharge!**<br>While carrying out adjustment work on the unit, make sure that you discharge yourself statically before touching the electrical components. |

## 3.5 Used safety symbols


Electrical hazard


Personal injury


Overhead loads


Risk of tipping


Rotating components


Crushing of limbs


Sharp cutting edges


Static discharge


Environmental damage


Damage to the unit


Contaminated surfaces

## 3.6 Safety-conscious work procedures

When carrying out installation or maintenance jobs FläktGroup recommends to observe the following instructions:

- Wear suitable protective clothing during all work, such as protective footwear, gloves, safety goggles, etc.
- Avoid flame sources, especially burning cigarettes. Open flame sources and smoking in the proximity of the unit are prohibited. Filters in general and used filters in particular can easily catch fire.

**General Notes:**

– As long as the unit is operating and rotating parts are still moving, do not remove any unit covers and protective covers.

– Before switching on the unit again, make sure that the unit panels and doors are properly attached and closed.

**When working within range of mains voltage:**

**⚠ DANGER**

**Electrocution through hazardous voltage will lead to death or serious injury.**

- Disconnect the unit from the power supply and ensure the power cannot be switched back on.
- Ensure the unit is voltage-free and isolated, earth and short circuit the unit, cover or shield off neighboring live components.

**For all kinds of work:**

**⚠ WARNING**

**Warning of contaminated filter surfaces!**

When working on the unit or in case of damage to the components, there is a health risk injury the contaminated filter surfaces.

- Wear protective clothing and safety goggles
- Wear protective mask
- Exercise due caution and attention when carrying out this work.

**⚠ CAUTION**

**Sharp corners and edges can cause injuries!**

There is a risk of cuts on thin edges when cleaning or maintain the unit.

- Wear resistant gloves.

- Please comply with the installation and shipping instructions for FläktGroup units.
- Observe the pre-commissioning requirements.
- Always make sure that the FläktGroup unit is accessible only to authorized and trained technical personnel. If necessary, use appropriate equipment to keep unauthorized persons away from the unit.

## 3.7 Proper use

AP BOI air purifiers are only used indoors, i.e. in standard environments according to IEC 60721-3-3 and are designed exclusively for internal filtration and decontamination of air.

- Children are not allowed to operate the unit.
- Indoor installation only, it is allowed to operate the unit only indoors.
- Keep the unit away from open flames.
- Install the unit on an even surface and ensure safe cabling connection.

Proper use also includes observance of the operation manual and the inspection and maintenance conditions stipulated by FläktGroup.

## 3.8 Improper use

Any use other than that described above is considered **improper**. The manufacturer/ supplier is not liable for damage arising from improper use. The user alone bears the risk.

**⚠ WARNING**

**Personal injury and equipment damage!**
It is not allowed to operate FläktGroup units:
- in areas subject to explosion risk
- outdoors
- in environments with strong electromagnetic fields
- for industrial air filtration

## 3.9 Safety standards and regulations

During installation, electrical connection, commissioning, repairs and maintenance of the AP BIO air purifiers ensure to meet the applicable safety regulations, standards and generally accepted technical rules.

- DIN EN 60335-1 ed. 3 Household and similar electrical appliances Safety - Part 1: General requirements.

## 3.10 Modifications and changes

You are not allowed to change, add to or modify the FläktGroup units in any way. Any changes or modifications to the FläktGroup units will invalidate the CE conformity certificate and render all warranty claims null and void.

## 3.11 Spare parts

Only original FläktGroup spare parts are allowed, since FläktGroup is not liable if third-party spare parts are used.

## 3.12 Disposal

Equipment and operating supply materials must be disposed of according to material type in an environmentally friendly manner – please refer to chapter 10.2 "Disposal".

## 3.13 Selection and qualification of personnel

Ensure that every person working on the unit has read and understood this entire operation manual – especially the chapter on safety. It is too late to do this after work has already begun.

All skilled staff must be able to assess the work assigned to them, and recognize and avoid all associated dangers.

# 4 Technical Description

## 4.1 Unit description

AP BIO air purifiers are equipped with a filtration system for decontamination of air. This process is performed by filter inserts of filtration class ISO ePM1 55% (F7) and HEPA filter inserts of filtration class H14 with active bactericidal, fungicidal and virucidal agent AirFend ™, which filters and decontaminates bacteria and viruses.

AP BIO air purifiers are fully completed at the factory and are subjected to a test operation, so they are easy and quick to install.

***Directives and regulations***

Units meet the following directives and standards:

- Directive on Machinery 2006/42/EC
- Low Voltage Directive (LVD) 2014/35/EU
- Electromagnetic Compatibility (EMC) 2014/30/EU
- Certified Quality Management System ISO 9001

### 4.1.1 General overview

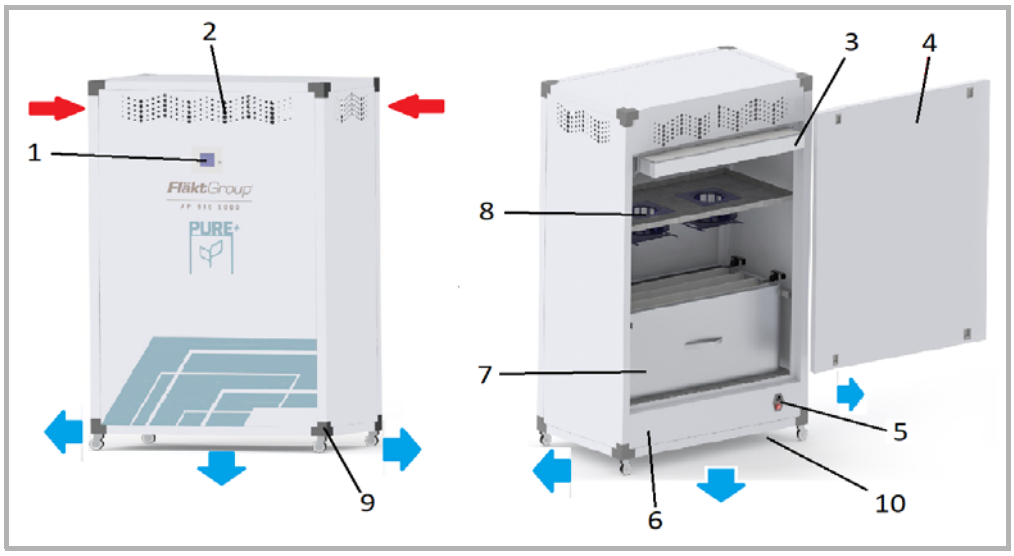



*Fig. 4-1 General overview AP BIO 400, 500 and 1000*

*1: Control panel*
*2: Indoor air inlet*
*3: Pre-filter ISO ePM1 55% (F7)*
*4: Access panel with key*
*5: Power socket with integrated switch*
*6: Identification plate*
*7: HEPA H14 AirFend filters*
*8: Fans with EC motors*
*9: Casters*
*10: Clean air outlet*

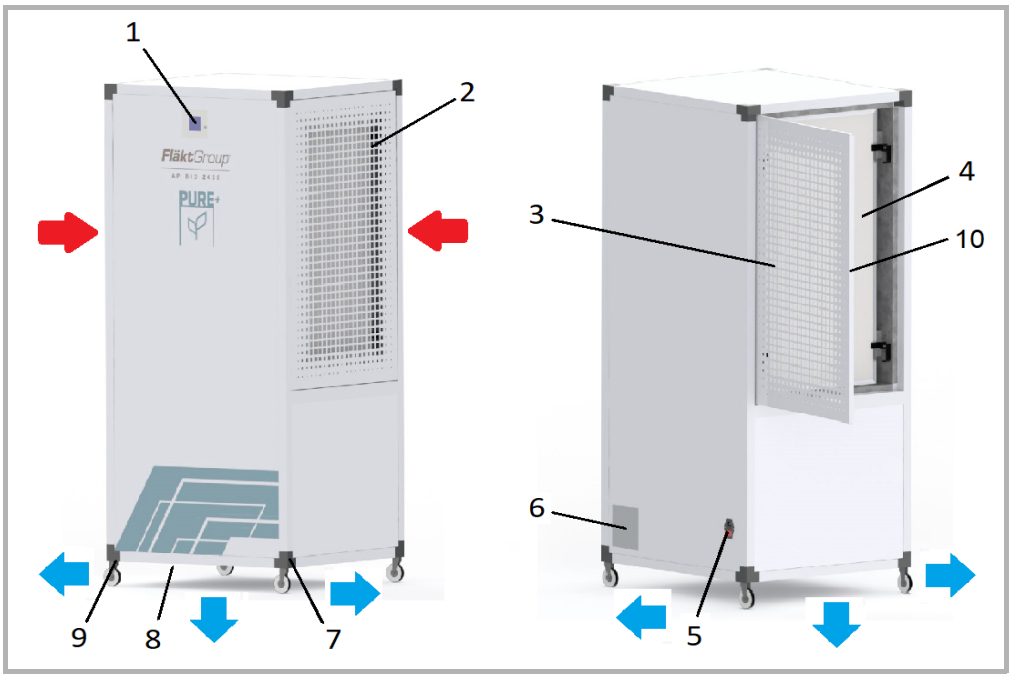



*Fig. 4-2 General overview AP BIO 2400*

*1: Control panel*
*2: Indoor air inlet*
*3: Access door with key*
*4: Pre-filter ISO ePM1 55% (F7) and HEPA H14 AirFend filter*
*5: Power socket with integrated switch*
*6: Identification plate*
*7: Rear casters*
*8: Clean air outlet*
*9: Front caster (with brake)*
*10: Door lock for access with key*

For installed components on the individual unit, refer to the data sheets or the quotation text for the unit.

### 4.1.2 Control panel

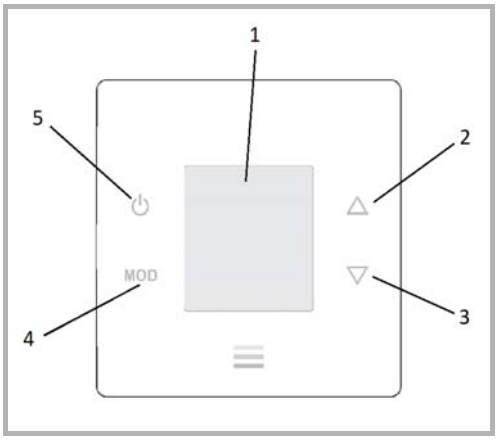



*Fig. 4-3 Overview control panel*

*1: Display*
*2: Increase button*
*3: Decrease button*
*4: Mode setting button*
*5: On/Off button*

For the data displayed on control panel, refer to chapter 7.1 "Overview of the operating elements".

## 4.2 Functional description

### 4.2.1 AP BIO air purifier (Model 2400)

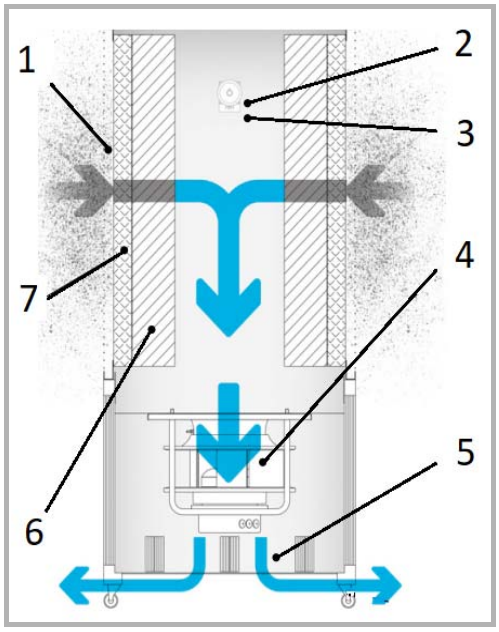



*Fig. 4-4 Functional overview*

1: *Indoor air inlet*
2: *Control panel*
3: *Indicator light*
4: *Fan*
5: *Air outlets*
6: *Second HEPA H14 filtration barrier*
7: *First ISO ePM1 55% (F7) filtration barrier*

The control panel (2) used to adjust the air flow rate of the unit.

The electrically driven fan (4) creates a constant negative pressure in the air column.

The air flows through the indoor air inlet (1) and further through the ISO ePM1 55% (F7) filtration barrier (7). In this step 55% of particles and microbes are captured.

A second HEPA H14 filtration barrier (6), which is also impregnated with the 100% natural AirFend$^{TM}$ bio-decontaminating solution in powder form, deactivates viruses and bacteria.

The clean air flows out through the air outlets (5) where traps are present to reduce noise levels.

The indicator light (3) indicates a filter change when the loading conditions are reached.

## 4.3 Technical data AP BIO

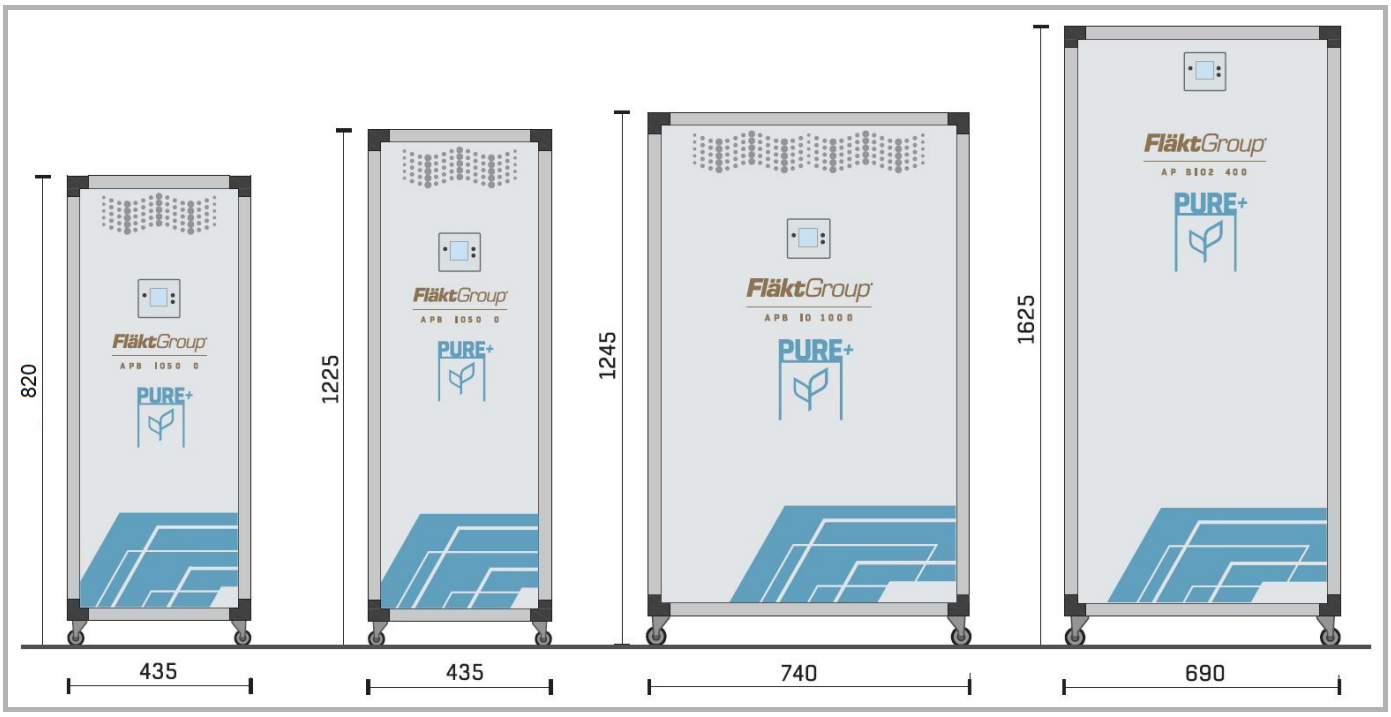



*Fig. 4-5 Example dimensions AP BIO 400*

| | AP BIO 400 | AP BIO 500 | AP BIO 1000 | AP BIO 2400 |
|---|---|---|---|---|
| Air flow range | 90 - 400 $m^3$/h | 90 - 500 $m^3$/h | 180 - 1000 $m^3$/h | 240 - 2400 $m^3$/h |
| Average air flow | 300 $m^3$/h | 300 $m^3$/h | 600 $m^3$/h | 1250 $m^3$/h |
| Filter face velocity | 0.90 m/s | 0.90 m/s | 0.90 m/s | 0.50 m/s |
| Dimensions (LxWxH) | 435x435x820mm (incl. wheels) | 435x435x1225mm (incl. wheels) | 740x435x1245mm (incl. wheels) | 690x640x1625mm (incl. wheels) |
| Weight | 25 kg | 32 kg | 58 kg | 89 kg |
| Operating voltage | 230 V AC, 50 Hz | 230 V AC, 50 Hz | 230 V AC, 50 Hz | 230 V AC, 50 Hz |
| Max. power consumption | 180 W | 180 W | 350 W | 1360 W |
| Sound pressure level $L_{PA}$ at max airflow at a distance of 1m from the air purifier | 61 db(A) | 63 db(A) | 66 db(A) | 77 db(A) |
| Filter placement | Top | Top | Top | Side |

*Tab.4-1 Technical specifications*

## 4.4 Operating limits

| | |
|---|---|
| Max. operating temperature | 45 °C |
| Max. operating temperature | 5 °C |
| Max. operating humidity | 90% |
| For specifications also refer to the unit name plate | |

## 4.5 Spare parts

### 4.5.1 Specification of filters

| Type | Size | Class | Frame | Surface $m^2$ | Gasket | AirFlow $m^3/h$ | Order code |
|---|---|---|---|---|---|---|---|
| AP BIO 400 | 305 x 305 x 292 | H14 | galvanized steel U-profile | 6.5 | PU | 750 | ZAP 04 FB |
| AP BIO 500 | 305 x 305 x 292 | H14 | galvanized steel U-profile | 6.5 | PU | 750 | ZAP 05 FB |
| AP BIO 1000 | 305 x 610 x 292 | H14 | galvanized steel U-profile | 13 | PU | 1500 | ZAP 10 FB |
| AP BIO 2400 | 450 x 850 x 117 | H14 | galvanized steel U-profile | 14 | PU | 1400 | ZAP 24 FB |
| AP BIO 400 | 305 x 305 x 48 | ISO ePM1 55% | Plastic | 1.6 | No | 500 | ZAP 04 FP |
| AP BIO 500 | 305 x 305 x 48 | ISO ePM1 55% | Plastic | 1.6 | No | 500 | ZAP 05 FP |
| AP BIO 1000 | 305 x 610 x 48 | ISO ePM1 55% | Plastic | 3.3 | No | 1000 | ZAP 10 FP |
| AP BIO 2400 | 450 x 850 x 48 | ISO ePM1 55% | Plastic | 6.7 | No | 2100 | ZAP 24 FP |

*Tab.4-2 Specification of filters*

# 5 Shipping and storage

## 5.1 Delivery

The units will be delivered with casters and with mounted filters.

Upon receipt of the units, inspect them for shipping damage and verify that the shipment is complete (refer to chapter 2.2 "Packaged content") according to the freight bill.

Take photographs of all visible transit damage.

**Notice!**
Missing parts or claims of shipping damage can only be reported to the transport insurance if the damage has been confirmed by the delivering carrier.

**Notice!**
We recommend keeping the equipment in the original packaging for protection and ease of handling during shipping and storage.
Remove the original packaging only just before installation.
Up to commissioning, protect the unit from building dust, dirt and damage!

## 5.2 Transport

**DANGER**

**Danger due to high loads!**
Inappropriate handling with high loads can lead to death or serious injuries.
For unit weight, refer to the order-related documentation and the unit identification plate.

**DANGER**

**Danger due to overhead loads!**
Never stand beneath suspended loads, since there is always a risk that the lifting gear, tackle, ropes or slings are faulty or damaged. Failure to follow safety precautions could result in death or serious injury.

- Wear safety clothing and protective helmet.
- Never stand under suspended loads!

- Before lifting or shipping the unit, make sure that all mountings are fixed and secured.
- Only use lifting gear with sufficient load-bearing capacity.
- Never use damaged lifting gear.
- Ropes/chains must not be knotted and/or be exposed to sharp edges.
- Only use ropes/chains of the same length.
- Only use the designated lifting gear (provided on site).
- A girder with suitable load-bearing capacity must be used to ensure the stability of the lifted load and to avoid the lifting gear coming in contact with the unit.
- Move the unit carefully without fast irregular movements.
- Do not move the unit in case of strong wind conditions.
- Always set the unit down gently, without bumping it.
- If required, engage a specialist company to ship the unit.

**TRANSPORT WITH PACKAGING**

Only appropriately equipped personnel must perform the transportation in compliance with the applicable safety regulations. Lifting and rigging the unit must only be performed using lifting devices appropriately designed to support the entire weight of the unit. Do not stack the units!

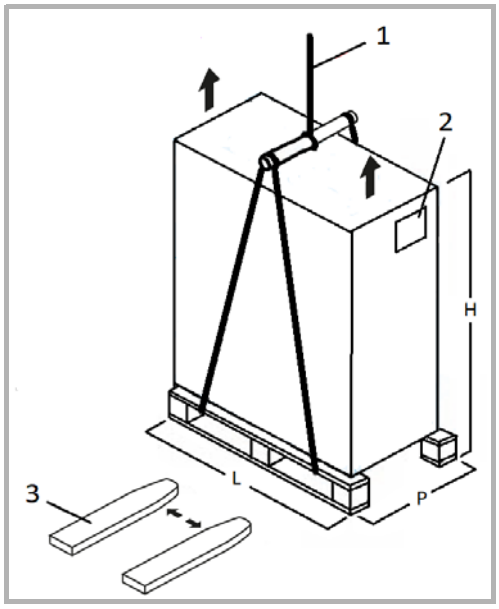



*Fig. 5-1 Transporting with packaging*

*1: Crane*
*2: Identification plate*
*3: Lift truck*

- Lifting with the lift truck (3)
  Position the fork at the unit bottom and set it to the widest possible position.
- Lifting with the crane (1)
  To lift, insert poles into the feet of the unit that are long enough for the lifting ropes and anti-slip devices to be attached. For the dimensioning of the pipes, please refer to the figure in the corresponding section.
  To avoid damage, make sure that the hoist ropes cannot rub against the unit.

- For your own safety wear gloves and safety footwear when lifting or shipping the unit.

**Notice!**
Use only supplied documentation and enclosed detailed dimensional drawings when transporting the unit.

## 5.3 Storage

**Allowable storage conditions / allowable air condition for un-installed units**

The storage of air purifiers and filter inserts with the virucidal agent AirFend ™ is allowed in warehouses of type IE 12 according to EN IEC 60721-3-1 ed. 2. Units must be stored in a weatherproof, dry and dust-free location.

Air temperature: - 15 °C to + 46 °C

Air humidity: up to 85% (relative humidity with no condensation)

# 6 Assembly

**Note on mounting and installing the unit!**

Here you will find information on how to mount and install the unit.
Placement, installation and assembly may only be carried out by qualified specialists with proper professional training and experience in the relevant accident prevention regulations, as well as other generally recognized safety and occupational health codes.

**Note on moving the unit!**

If the FläktGroup units have been moved from one plant/location to another, repeated commissioning is required.

## 6.1 Erecting the unit

**Notice!**

Use only the supplied order-related documentation and enclosed detailed dimensional drawings when transporting the unit.

The unit must be installed at a location that fulfills the following requirements:

– Ensure that the ground are level and that it can support the weight of the equipment, so that no vibrations or operating noises occur when the unit is operating.
– The unit must be installed in such a way that it is only accessible to trained and authorized technical personnel. If required, use appropriate equipment to keep unauthorized persons away from the unit.
– To achieve the best performance of the AP BIO air purifier it is desirable to position the unit as close to the center of the room as possible. Make sure that the indoor air inlets at the top of the unit are not blocked, otherwise operation, performance and noise levels will be affected.
– Roll the unit to the desired position and apply the brake on the front casters (AP BIO 2400 and AP BIO 1000).
– Connect the power supply. If necessary, use an extension cord compatible with the electrical power of the unit (see identification plate).

# 7 Commissioning and operation

| | ***ATTENTION*** |
|---|---|
|  | **Damage to the unit!**<br>The unit must not be operated until the proper function tests have been carried out. |

## 7.1 Overview of the operating elements

### 7.1.1 Control panel elements

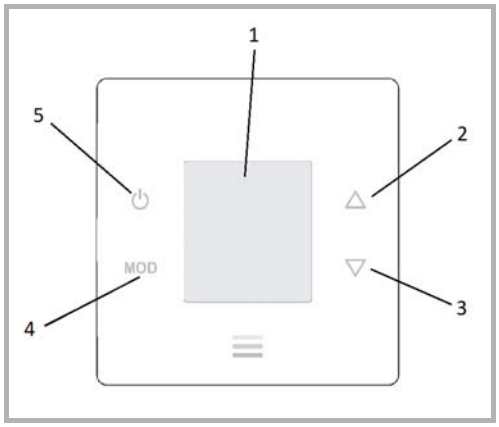
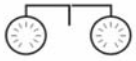



*Fig. 7-1 Overview control panel*

*1: Display*
*2: Increase button*
*3: Decrease button*
*4: Mode setting button*
*5: On/Off button*

### 7.1.2 Symbols of the control panel display


*Fig. 7-2 Symbols of the control panel display*

| Symbol | Meaning |
|---|---|
|  | Constant flow |
|  | On/Off status light<br>Off = Unit is off<br>On = Unit is on |
|  | Regulation mode status light<br>Off = Manual mode<br>On = Automatic mode |
|  | Fan status light<br>Off = Fan is off<br>On = Fan is running |
|  | Alarm light indicating clogged filter alarm light |

*Tab.7-1 Symbols of the control panel display*

## 7.2 Commissioning

- Set the power switch to position ON (I). Refer to:
  Fig. 4-1 General overview AP BIO 400, 500 and 1000 Pos. 5 and
  Fig. 4-2 General overview AP BIO 2400 Pos. 5.
- After a few moments, the WAIT symbol will disappear from the display.
- Use the INCREASE button to adjust the air volume setpoint to the maximum value
- Enable unit to operate for 3 to 5 hours.

**Notice for the first unit activation!**

– When the unit is switched on for the first time, the AirFend is transferred to the HEPA filter which activates the biological AirFend layer.
– This will result in a smell of cloves and other biological substances.
– Such smell emissions are normal and do not represent a reason for complaint.
– This smell subsides in a few days following the activation.
– Activation of the AirFend layer can cause allergic reaction.

- After 3 to 5 hours of initial activation use the INCREASE or DECREASE button to adjust the air volume setpoint to the desired value.
- Repeat the above activation procedure when the AirFend HEPA14 filter is replaced.

## 7.3 Operation

- Set the power switch to position ON (I). After a few moments, the WAIT symbol will disappear from the display.
- Press the On/Off button on the control panel.
- Select the automatic or manual operating mode using the MOD button.
- Adjust the air volume setpoint using the INCREASE or DECREASE buttons.
- To put the unit in standby mode, press the On/Off button.
- To cut off the power supply to the unit, set the power switch to position OFF (O).
  Refer to:
  Fig. 4-1 General overview AP BIO 400, 500 and 1000 Pos. 5 and
  Fig. 4-2 General overview AP BIO 2400 Pos. 5.

## 7.4 Settings

In automatic mode, the airflow rate of the unit is indicated in $m^3/h$, the setpoint remains within the minimum and maximum values specified in table 4-1 on page 14.

In automatic mode when the INCREASE or DECREASE buttons are pressed the set-point is displayed on the screen, after a few seconds it is the actual value of the airflow or the fan speed that appears.

**Notice!**
There is a delay of a few seconds between the modification of the setpoint and the fan response.

# 8 Fault finding and troubleshooting

***ATTENTION***

**Damage to the unit!**
**If alarms occur, inform FläktGroup Service immediately!** Reset an alarm only after detecting and eliminating the cause of failure.
If alarms are reset without eliminating the fault, serious
unit damage and expiration of the warranty can be the consequence. The error must not be reset manually without prior consent of FläktGroup Service.

## 8.1 Troubleshooting

| Problem | Cause | Solution |
|---|---|---|
| The unit does not reach the maximum air flow. | The filters are clogged. | Replace the filters. |
| The unit makes excessive noise. | The filters are clogged. | Replace the filters. |
| | Presence of a foreign object in the fan area. | Extract the foreign object. |
| The unit stops working. | The access door is not closed properly (AP BIO 400, AP BIO 500 and AP BIO 1000) | Close the access door properly. |
| | Electric power supply problem. | Check the power supply. |

*Tab.8-1 Overview troubleshooting*

Other problems or faults must be addressed by qualified personal.

Please consult our authorized after-sales service.

# 9 Maintenance of the AP BIO

## 9.1 Replacing the filters

When the Blocked filter alarm light appears (see Symbols on the control panel display), it is necessary to replace the pre-filter(s) and the AirFend filter(s).

The theoretical frequency of changing pre-filters and AirFend filters is 3 months in a high-contamination environment (hospitals in 24/7 mode) and 5 months in other environments (schools, nurseries, offices, etc.).

**⚠ DANGER**

**Electrocution through hazardous voltage will lead to death or serious injury.**

- Disconnect the unit from the power supply and ensure the power cannot be switched back on.
- Ensure the unit is voltage-free and isolated, earth and short circuit the unit, cover or shield off neighboring live components.

**⚠ WARNING**

**Warning of rotating fan!**
When working on the unit or in case of damage to the components, the running fan will lead to serious injury.

**⚠ WARNING**

**Warning of contaminated filter surfaces!**
When working on the unit or in case of damage to the components, there is a health risk injury the contaminated filter surfaces.

- Wear hygienic hand gloves and safety goggles
- Wear protective respiratory mask
- Exercise due caution and attention when carrying out this work.

**⚠ CAUTION**

**Sharp edges can cause injuries!**
There is a risk of cuts on thin edges when cleaning fins.

- Wear chemical resistant gloves.

**Notice!**
Please contact your local disposal company and/or check your local regulations for correct disposal of used filters.

### 9.1.1 Replacing the filters AP BIO 400, AP BIO 500 and AP BIO 1000

**Replacing the pre-filter**

**⚠ WARNING**

**Warning of contaminated filter surfaces!**
When working on the unit or in case of damage to the components, there is a health risk injury the contaminated filter surfaces.

- Wear hygienic hand gloves and safety goggles
- Wear protective respiratory mask
- Exercise due caution and attention when carrying out this work.


*Fig. 9-1 Replacing the pre-filter AP BIO 400, AP BIO 500 and AP BIO 1000*

*1: Pre-filter ISO ePM1 55% (F7)*
*2: Upper bottons*
*3: Safety lock*
*4: Access panel*

- Unlock the door (3) with a special access key at the door center.
- Remove the access door (4) by pushing the two upper buttons (2).
- Open the plastic bag, remove the new pre-filter and put it aside.
- Slide out the used pre-filter very carefully, put it into the empty plastic bag of the new filter and seal up with a tape.
- Clean inner flat surfaces carefully with a cloth and disinfect with spray, observe the exposure time of disinfection liquids of min. 30 sec. Also refer to “Cleaning the air purifier” on page 27.
- Slide in the new filter and make sure it is pushed it in all the way until it touches the back wall of the unit.

## Replacing the AirFend filter

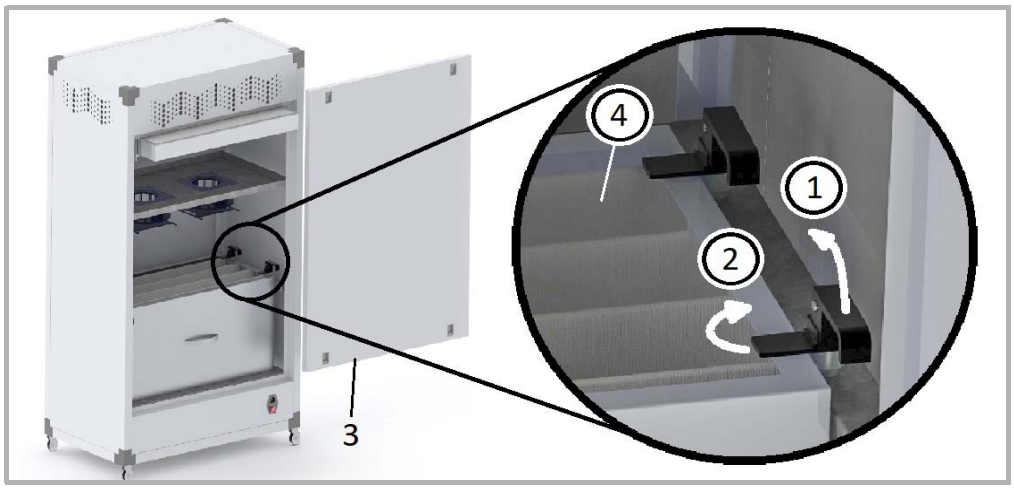



*Fig. 9-2 Replacing the AirFend filter AP BIO 400, AP BIO 500 and AP BIO 1000*

*1: Lever*
*2: Filter quick release*
*3: Access panel*
*4: AirFend filter H14*

- Swing the lever (1) of each of the 4 AirFend filter quick-releases (2) and rotate them 90°.
- Open the plastic bag, remove the new AirFend filter and put it aside.
- Lift the AirFend filter (4) slightly and remove it from the frame.
- Put the used filter into the empty plastic bag of the new filter and seal up with a tape.
- Clean inner flat surfaces carefully with a cloth and disinfect with spray, observe the exposure time of disinfection liquids of min. 30 sec. Also refer to “Cleaning the air purifier” on page 27.
- Reassemble the new AirFend filter in the reverse order.
- Close access panel (3).

### 9.1.2 Replacing the filters AP BIO 2400

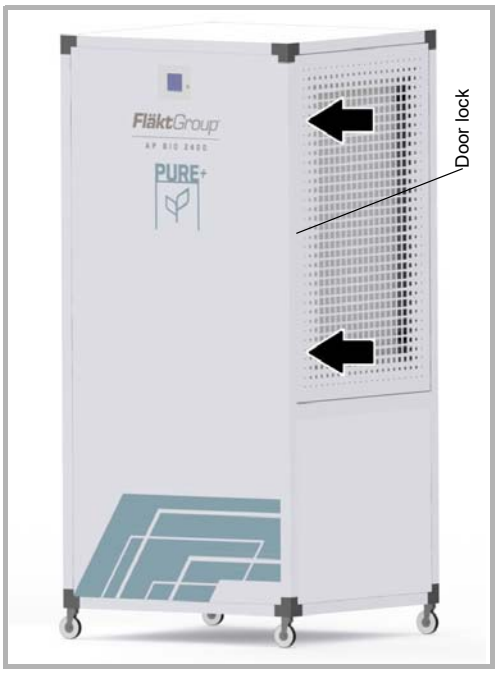



*Fig. 9-3 Open the AP BIO 2400*

- Unlock the door with a special access key on the middle right side.
- Open the first door by pressing with both hands on the door at the points shown in Fig. 9-3.

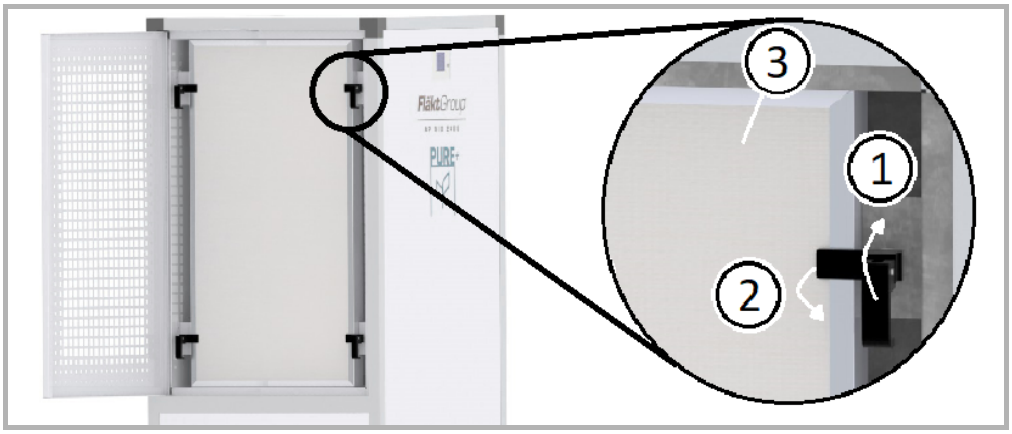



*Fig. 9-4 Replacing the AirFend filter AP BIO 2400*

*1: Lever*
*2: Filter quick release*
*3: Filter (ISO ePM1 55% (F7) + H14)*

- Swing the lever (1) of each of the 4 AirFend filter quick-releases (2) and rotate them 90°.
- Open the plastic bags, remove the new filters and put them aside.
- Extract the used filters (3) from the unit one at a time, put these into the empty plastic bags of the new filters and seal up with a tape.
- Clean inner flat surfaces carefully with a cloth and disinfect with spray, observe the exposure time of disinfection liquids of min. 30 sec. Also refer to “Cleaning the air purifier” on page 27.
- Reassemble the new filters in the reverse order.
- Close the access door and repeat the procedure on the opposite side.

## 9.2 Cleaning the air purifier

**⚠ DANGER**

**Electrocution through hazardous voltage will lead to death or serious injury.**

- Disconnect the unit from the power supply and ensure the power cannot be switched back on.
- Ensure the unit is voltage-free and isolated, earth and short circuit the unit, cover or shield off neighboring live components.

*Observe current legal regulations and standards!*

*FläktGroup recommends to perform maintenance steps and observe intervals in conformity with local regulations.*

- Use a dry cloth to remove dry coarse dirt.
- Remove remaining dirt following a subsequent installation of add-on accessory items.
- For other contaminants use a dry cloth to remove dirt, if applicable wash off using some water by adding alkaline cleaning agent.
- For disinfectioning unit surfaces use cleaning agents specified in the following sources: “List of disinfection procedures (DGHM)” issued by the German Association for Hygiene and Microbiology, certificates issued by DVG and VAH (German Association of Veterinary Medicine and the German Association for Hygiene and Microbiology/Association for Applied Hygiene).
- Refer to the above sources list for details and consider the specified concentration and exposure time.
- Use the following cleaning agents: e.g. BODE Microbak or DESOMED Desotop. For correct concentration refer to the data sheet provided by the manufacturer and/or select a non-visible small surface to test the solution there beforehand.
- Using alcohol-containing agents is not allowed due to risk of explosion and fire.
- Do not use abrasive sponges or tools that may scratch or scrape the protective surface during cleaning (surface can be damaged).
- Treat galvanized parts with a preservative spray.
- Apply a lubricant spray to all moving parts, such as door latches and hinges
- Clean gaskets on the doors and check for leaks, microbial growth and mould. It is recommended to treat gaskets with a waterproof preservative.

# 10 Disassembly and Disposal

| | ***ATTENTION*** |
|---|---|
|  | **Environmental damage!**<br>Have qualified licensed staff only dismantle and dispose of the unit! |

## 10.1 Dismantling

To dismantle the units, proceed as follows:

| | **⚠ DANGER** |
|---|---|
|  | **Electrocution through hazardous voltage will lead to death or serious injury.**<br>When carrying out decommissioning and dismantling work on the unit you must:<br>• Disconnect the unit from the power supply and ensure the power cannot be switched back on.<br>• Ensure the unit is voltage-free and isolated, ground and short circuit the unit, cover or shield off neighboring live components. |

| | **⚠ DANGER** |
|---|---|
|  <br>  | **Danger due to high loads!**<br>Inappropriate handling of high loads can lead to death or serious injuries.<br>For unit weight, refer to the order-related documentation and the unit identification plate.<br>• Use proper lifting gear (crane equipment) for lifting and handling.<br>• Never use a fork lift truck or pallet truck, as there is a risk of the unit toppling over.<br>• Secure the unit against slipping. |

✓ The unit is ready for transport.

• Observe all shipping instructions (refer to chapter 5 "Shipping and storage").

## 10.2 Disposal

An **authorized appointed contractor** specializing in waste processing must dispose of the unit or its individual components. This appointed contractor must ensure that:

– the components are separated according to material types.

– the used operating materials are sorted and separated according to their respective properties.

| | ***ATTENTION*** |
|---|---|
|  | **Environmental damage!**<br>Dispose of all components and materials in an environmentally friendly manner in accordance with the local codes, practices and environmental regulations. |

# DECLARATION DE CONFORMITE Conforme a EN ISO 17050-1:2004

**Declaration Nº: 3/20**

**Fabricant:**

AIRFLOW S.A.
CIF. A28551422
Eduardo Torroja Nº 15 - 28946 Fuenlabrada - MADRID (Spain)
+34 91 690 70 46

**Nous déclarons sous notre responsabilité que les produits dont la liste apparait ci-dessous, ont été conçus afin de remplir les spécifications des différentes directives applicables mentionnées ci-dessous, à condition d'être installés, entretenus et utilisés pour l'application pour laquelle ils ont été prévus et suivant les « règles de l'art », les normes d'installation en vigueur et les instructions du fabricant.**

**Produit :**

Recycleur portable.

**Marque:**

FLAKTGROUP

**Modèles:**

AP BIO 400 / AP BIO 500 / AP BIO 1000 /
AP BIO 2400

**Directives :**

Remplissent les exigences de la Directive ErP 2018 Ecodesign.
Remplissent les exigences de la Directive 2006/42/CE relative aux machines.
Remplissent, d'autre part, les exigences applicables des Directives CE suivantes :

- 2014/30/CE, CEM 2009/125/CE, Ecodesign (Règlement (UE) n. º 327/2011)
- 2009/125/CE, Ecodesign (Règlement (UE) n. º 1253/2014)
- 1999/5/CE, RTTE (appareils radioélectriques et équipements terminaux de télécommunications)

Sont en conformité avec les normes harmonisées suivantes :

- UNE-EN ISO 12100:2012 Sécurité des machines.
- UNE-EN 60204-1:2007 Sécurité des machines.
- UNE-EN ISO 13857:2008 Sécurité des machines.
- UNE-EN 61000-6-2:2006 Compatibilité électromagnétique.
- UNE-EN 61000-6-3:2007/A1:2012 Compatibilité électromagnétique.
- UNE-EN 1886:2008 Ventilation des bâtiments - caissons de traitement d'air.
- UNE-EN 13053:2007+A1:2012 Ventilation des bâtiments - caissons de traitement d'air.

Sont en conformité avec les documents suivants :

- UNE-EN 60335-1:2002
- UNE-EN 60335-1/A11:2004
- UNE-EN 60335-2:2004 (EN 60335-30:2003)
- UNE-EN 55014-1:2008/A1:2009
- UNE-EN 55014-2:1998/A1:2002

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**Signé par:**

T M.Albanese

# Notes

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FläktGroup is the European market leader for smart and energy efficient Indoor Air and Critical Air solutions to support every application area. We offer our customers innovative technologies, high quality and outstanding performance supported by more than a century of accumulated industry experience. The widest product range in the market, and strong market presence in 65 countries worldwide, guarantee that we are always by your side, ready to deliver Excellence in Solutions.

**PRODUCT FUNCTIONS BY FLÄKTGROUP**

Air Treatment | Air Movement | Air Diffusion | Air Distribution | Air Filtration
Air Management | Air Conditioning & Heating | Controls | Service

*» Learn more on **www.flaktgroup.com** or contact one of our office*