



AIR PURIFIER UV-C air sterilization

AC-100pro, AC-250pro, AC-250proECO AC-500pro,
AC-800pro, AC-800proECO, AC-1600pro, AC-250pro DENTAL

Instructions for Use

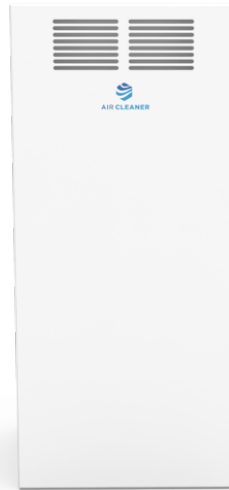


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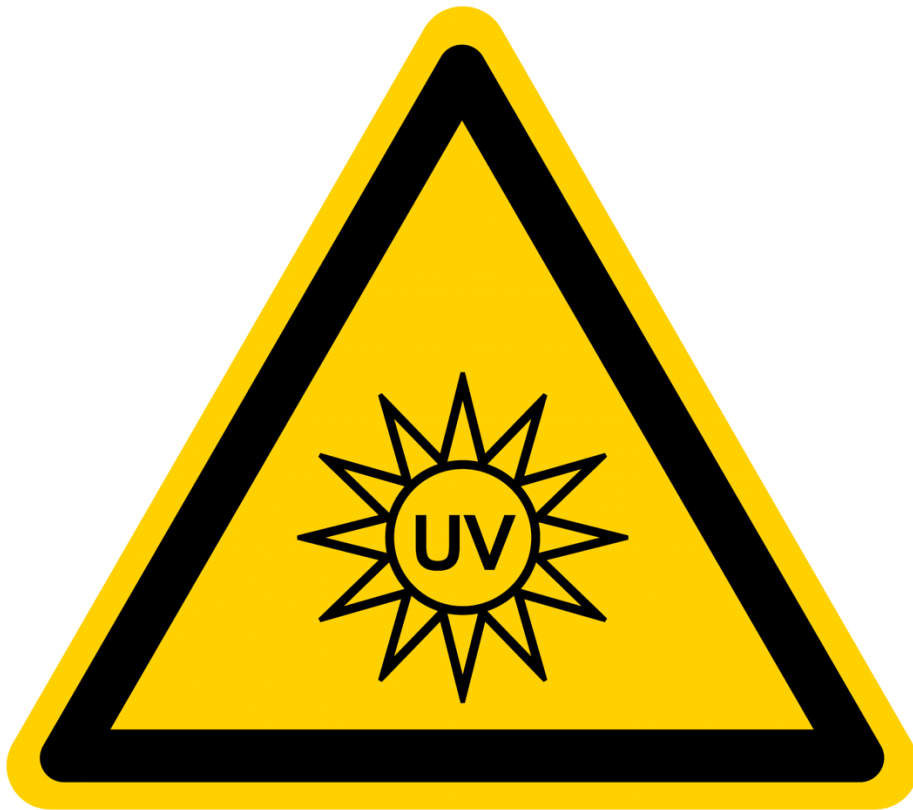
Symbol description

 WARNING

 CAUTION

Always take note of any information marked with the words CAUTION or WARNING and a warning sign. The signal word WARNING draws your attention to potential serious injury, and the signal word CAUTION to potential minor injury.

1. Important information



 **Warning - UVC RADIATION**

Do not open the housing!
Beware of harmful UVC radiation from inside the device!

Proper use

Before using the machine read these instructions for use thoroughly and completely and comply with the instructions they contain. A warranty service is not applicable for damage or defects caused by non-compliance with the instructions for use. Keep these instructions for use close to the machine and pass them on to the next user. Keep it in a safe place for future reference. After removing the packaging, check the device for damage.

If you suspect any damage, do not operate the device and contact a qualified technician.

This device may only be used for the purpose for which it was expressly designed. Use for any other purpose is considered improper and therefore dangerous. AIR CLEANER AG cannot accept any responsibility for the consequences of improper use.

The device is not a substitute for adequate ventilation but serves as a supplementary measure.

For your safety

The recyclable packaging material must not be stored or disposed of in a manner accessible to small children.

Repairs to electrical equipment may only be carried out by qualified personnel. Improperly carried out repairs and modifications to the equipment can have dangerous consequences for the user, whereupon warranty and liability claims will be rejected. AIR CLEANER AG is not liable for any personal injury and/or damage to property resulting from improper or incorrect use.

This device can be used by children aged 8 years and older and by persons with reduced physical, sensory or mental abilities or lack of experience and knowledge, if they are being supervised or instructed in the safe use of the device and understand the resulting dangers. Children must not play with the device. Cleaning and user maintenance must not be performed by children without supervision.



WARNING

- Do not operate the device if the mains cable is damaged. It must be replaced by AIRCLEANER AG service center to avoid any danger. The device must not come into contact with water. Also do not touch the plug with wet hands.
- Make sure that the voltage indicated on the device matches the voltage of your power outlet.
- Do not operate the device if it has a damaged cable or plug, if it does not work properly or if it has been damaged in any way. The device may only be serviced by qualified service personnel. Return the device to our service center for inspection, repair or adjustment.
- Do not use the device near gas appliances, radiators, fireplaces, lighting fixtures, or under direct sunlight.
- Do not use the unit in a location subject to large temperature fluctuations to avoid condensation inside the unit.
- Do not clean or spray the device with water, liquids, detergents or other flammable materials such as insecticides or fragrances to avoid electric shock or fire hazard.



CAUTION

- Do not use the unit if smoke-based insect repellents are used in the room or in areas with oily deposits, burning incense candles or chemical fumes.
- Do not block the air inlet and/or air outlet openings.
- If the device makes unusual noises, smells burnt or smoke is visible, unplug the power cord from the wall outlet and call our service center.
- Always place and use the unit on a dry, stable and level surface.
- Keep at least 50 cm distance from walls or adjacent objects.
- Do not press or lean against parts of the device, avoid excessive force and do not bump into or insert any pointed or hard objects such as a screwdriver into the device.
- Ensure good air circulation while using the device.
- Unplug the appliance from the power outlet when not in use.
- Use the device solely for its intended purpose.

2. Product introduction

The Air Cleaner Pro Series was designed for the inactivation of numerous kinds of germs and pathogens. The high-performance UV light tubes work effectively and reliably to reduce the risk of infection with pathogens in aerosols. Due to the completely shielded UV-C irradiation chamber, Air Cleaner devices can be used without any concerns in busy rooms.

2.1 Functionality

The drawn-in air is led through a suction channel to the combustion chamber. Inside the combustion chamber the germs are inactivated with powerful UV-C light. The air flows out of the combustion chamber through a shielded outlet channel and back out of the Air Cleaner in the ambient air.

The effectiveness of inactivation depends on the size and structure of the respective pathogen. In chapter 10 you will find a summary of germ types and their size and structure.

2.2 Airflow in AC- 100- 1600pro devices



Fig. 1) Air inlet (at the upper end of the housing)

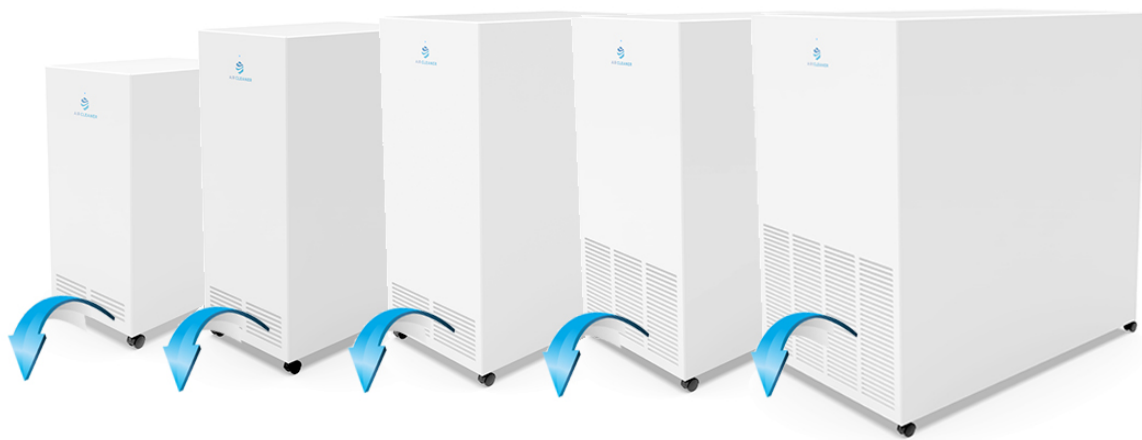


Fig. 2) Air outlet (at the bottom of the housing)

2.3 Cross-section of AC 250 pro DENTAL devices



3. Electromagnetic fields (EMF)

This Air Cleaner device meets all requirements regarding electromagnetic fields (2014/30/EU). Provided this device is used properly and according to the instructions in this manual, its use is safe according to current scientific knowledge.

4. Before first use

When the device is delivered, the UV-C tubes which are responsible for the disinfection of the air, are already inserted. You do not need to take any steps. The device is delivered ready to plug in. Insert the plug into a 230 Volt socket (applies in CH). You will hear the quiet sound of the air circulation fan inside the housing. At the inlet, as well as at the outlet you will feel a slight draft. The device is then active and works reliably.

AT FIRST USE OF THE DEVICE: Until the UVC tubes are equipoised, you will smell a strange odor. This is normal and can take up to 5 days. This also applies if the UVC tubes have been exchanged.

5. Using the device

Air Cleaners can be used and set up flexibly and individually. Please make sure that the cable is not a tripping hazard and a safe stand is guaranteed. Air inlet and outlet openings should have a minimum distance of 50cm to the next object.

The efficiency of the device depends on the position of the stand and the respective orientation. Place the Air Cleaner as centrally as possible. The unit sucks aerosols most effectively where they are generated. Please also consider the general air exchange in the room, such as ventilation systems or open doors that influence the air flows in the room. Consider the best operating range in a room illustrated in chapter 10.

5.1 Control and monitoring light

PLEASE NOTE: The ECO models with flow regulation have a swith-on delay of up to 15 seconds.

This also applies if a new power level is selected.

As soon as you connect the unit to the mains, the sterilization chamber and the blower switch on automatically. The control lamp lights up faintly in blue and after 10 to 15 seconds at the latest you will hear the fan slowly turning up.

The ECO models have a knob on the bottom of the unit with a continuously variable ventilation regulation function. If you turn the knob all the way to the right, the fan turns to 100% power. Turning the knob to the left reduces the power.

To switch off the unit, you must unplug the unit from the mains.

6. Housing types & cleaning

Depending on the version of the device, you have one of the following housings: painted, CDF or HPL.

In all cases the housings can be cleaned easily considering the below points:

Painted housing: These housings can be cleaned normally with any universal cleaner.

CDF Housing: These housings can be cleane with a universal cleaer and/or with antibacterial cleaning agents.

HPL Housing: These housings can also be cleaned with chemical cleaning agents and alcohol disinfectant solutions.



CAUTION

Please make sure to disconnect the device from the power supply before starting the cleaning/disinfection process!

7. Maintenance

The maintenance interval of all Pro units is 12'000 hours.

In the bottom of the device, you will find a built-in hour counter.

Maintenance and service work must be carried out before the 12'000 hours are reached.

It is recommended to take out a half year or annual subscription to achieve the best possible efficiency in the long run.

The logarithmic calculations of the disinfection efficiency of the device are based on a residual power of 70% of the tubes at 12'000 hours. Thus, we guarantee a long operation without unnecessary maintenance.

Maintenance of the device is carried out exclusively by AIR CLEANER AG.



WARNING

DO NOT OPEN THE HOUSING - Beware of harmful UVC radiation from inside the device!

8. Troubleshooting

The Air Cleaners are designed for the simplest possible application for the user. Thus, we can exclude the susceptibility of errors in advance so that the device works as efficiently as possible.

Possible errors:

Unit cannot be switched on. There is no air flow to be felt. There is no sound to be heard.

Possible reasons:

- The power cable has not been plugged into the socket properly.
- The plug or the cable is damaged.
- The socket used does not work.
- You have not waited for the 15th second power-on phase until the machine starts.

If the device still cannot be switched on, please contact our service department.

9. Warranty / Disposal / Technical modification

Warranty

The devices are carefully checked before delivery. If there should be a defect in your device, please contact AIR CLEANER AG service centre.

Please hold the proof of purchase ready, as it must be presented for any warranty service.

The warranty is 24 months from the date of delivery.

Disposal

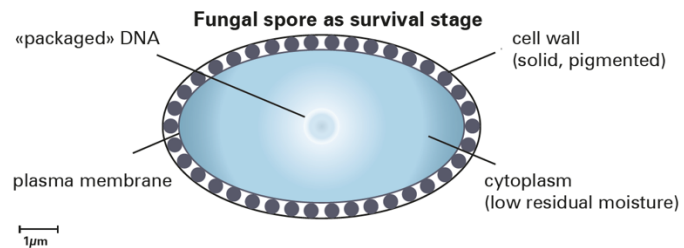
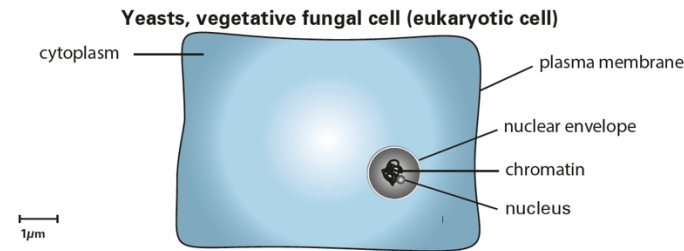
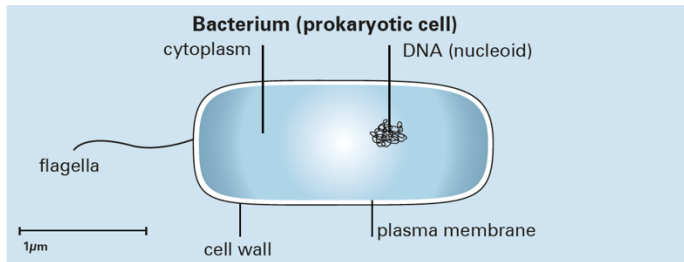
The device must be disposed of properly. The device can be returned to any electronics specialist dealer for disposal free of charge. Please store packaging of the device safely in case future transportation is needed.

Technical modification

We reserve the right to make technical changes. The diagrams used in these instructions for use are for illustration purposes only, some details of your device may vary.

10. Additional information & appendix

Germ types and their lethal dose:



Lethal dose dependent on cell structure

Viruses

- Simple build
- Simple DNA / RNA
- No repair mechanisms

Bacteria

- Unprotected DNA
- Small cell body
- Simple plasma membrane

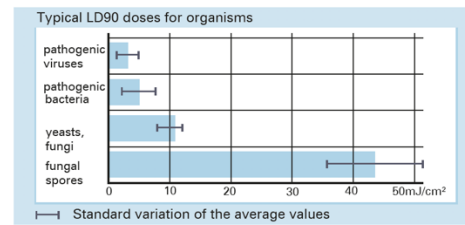
Yeast / vegetative fungal cells (mould)

- DNA in chromatin of nucleus
- Big cell body
- Simple plasma membrane

Fungal spores (single or multicellular)

- Concentrated cytoplasm
- Thick cell wall (pigmented)
- Simple plasma membrane

1 mm = 1'000 μ
1 μm = 1'000 nm
Zum Vergleich:
100 μm =
human hair width



Energy quantity for 90 percent inactivation*

Viruses

Influenza	2.400	Influenza H1N1	2.400
Bacteriophage (E. coli)	3.000		

Bacteria

Streptococcus hemolyticus (alpha)	2.200	Escherichia marcescens	2.500
Proteus vulgaris	2.700	Escherichia coli	3.000
Staphylococcus albus	3.300	Pseudomonas fluorescens	3.500
Staphylococcus aureus	4.900	Bacillus subtilis	6.000
Streptococcus lactis	6.100	Micrococcus sphaeroides	10.000
Bacillus subtilis spores	12.000	Sarcina lutea	19.800

Yeasts

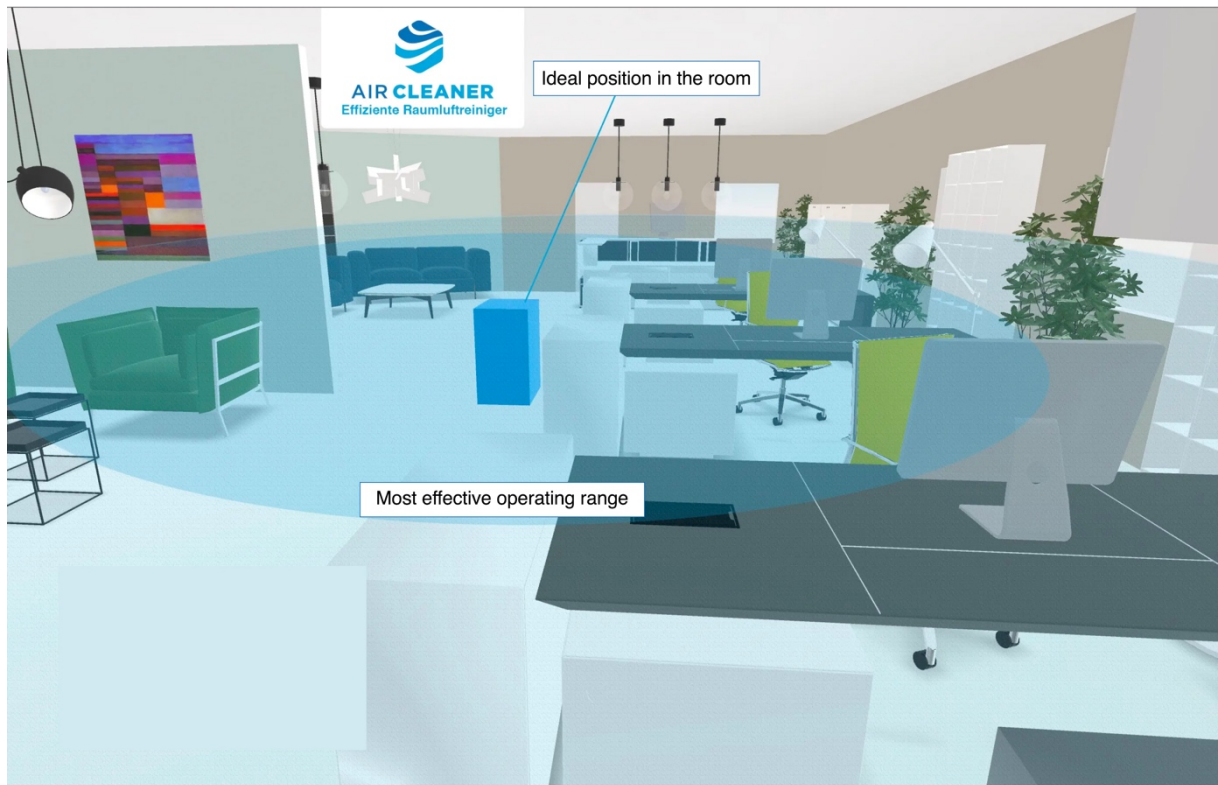
Baking yeast (saccharomyces cervisae)	3.900	Saccharomyces ellipsoideus	6.000
Saccharomyces spores *	8.000		

Mould

Oospora lactis	5.000	Penicillium roqueforti	13.000
Mucor racemosus	17.000	Penicillium expansum	22.000
Penicillium digitatum	44.000	Aspergillus glaucus	44.000
Aspergillus flavus	60.000	Rhizopus nigricans	95.000
Aspergillus niger	100.000		

* numbers in w*sec/cm² (J/cm²)

Best position in the room:



Directives

The device complies with the following directives:

2014/35/EU – Low Voltage Directive

2014/30/EU – Electromagnetic Compatibility

For detailed information on certification and directives please visit the website aircleaner.ch

Your opinion is important to us! Please reach out with feedback or if you have any questions.

Air Cleaner AG Bahnstrasse 14, CH-8544 Attikon +41 52 242 77 55 info@aircleaner.ch

Certificate of Conformity CoC

Eurofins CERTIFEL CoC
(Type testing certification scheme)

Certificate number C6M22012-0013-98889

Product	UV-C air cleaner
Applicant	Air Cleaner AG Bahnhofstrasse 14 / Halle 15, 8544 Attikon Switzerland
Manufacturer	Air Cleaner AG Bahnhofstrasse 14 / Halle 15, 8544 Attikon Switzerland
Manufactured at/Factory	Air Cleaner AG Bahnhofstrasse 14 / Halle 15, 8544 Attikon Switzerland
Trademark	Air Cleaner
Type/Model	AC-100pro AC-250pro AC-250pro ECO AC-500pro AC-800pro AC-800pro ECO AC-1600pro AC-250pro Dental
Ratings, characteristics	220-240 V, 50/60 Hz, 46-412 W Class I, IPX0
Standards	EN 60335-1:2012+A11:2014+A13:2017+A1:2019+A14:2019+A2:2019 EN 60335-2-65:2003+A1:2008+A11:2012 EN 62233:2008
Additional information	---
EC-Directives Commission regulations	2014/35/EU
Swiss regulations	SR 734.26 NEV

The products submitted by the applicant was type tested in accordance with the requirements of the mentioned standards. Eurofins certifies the conformity of the product with the standards. Presumption of conformity with the mentioned European directives and Swiss regulations can be assumed. Assurance of conformity during production will be in responsibility of the manufacturer. This certificate has been issued under the presumption and conditional on the fact that the applicant holds all necessary legal rights with regard to the product presented for testing and certification. This certificate has been issued under the presumption and conditional on the fact that the manufacturer fulfils the requirements written in the EU directives and Swiss regulations.

Results of testing are shown in report number: 20CH-01231.S01

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Swiss Certification Body

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Product Certification



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