

# Purification unit Cyclohnic



## INSTALLATION, OPERATION AND MAINTENANCE MANUAL



*Please, read these instructions carefully before attempting installation  
Deliver this manual to the final user.*

### SECURITY ADVISE SYMBOLS



*¡Attention, Danger, Safety Advice!*



*Danger from electric current or high voltage!*



*Injuries risk!*



*Danger! Do not stay underneath: Heavy load.*



*Important information.*



*Attention! Wear protective glasses  
UV-A: Ultraviolet radiation.*



## INDEX

INSTALLATION .....	4
CONNECTION DIAGRAM.....	5
TRANSPORT AND STORAGE.....	6
OPERATING INSTRUCTIONS.....	6
Power supply.....	6
Fixations.....	6
ELECTRICAL SCHEMES.....	7
DATASHEET.....	8
MAINTENANCE INSTRUCTIONS .....	11
G4 filter replacement.....	11
Tank draining.....	12
Exterior cleaning .....	12
Interior cleaning.....	12
Electrical consumption and visual checking.....	13
Cartridge replacement.....	13
REPAIRS AND REPLACEMENTS .....	14
Lateral service panel opening .....	15
Motor replacement .....	15
ACCESSORIES.....	16
FAULTS AND SOLUTIONS .....	17
COMFORMITY DECLARATION.....	18
IDENTIFICATOR .....	19
WARRANTY .....	19

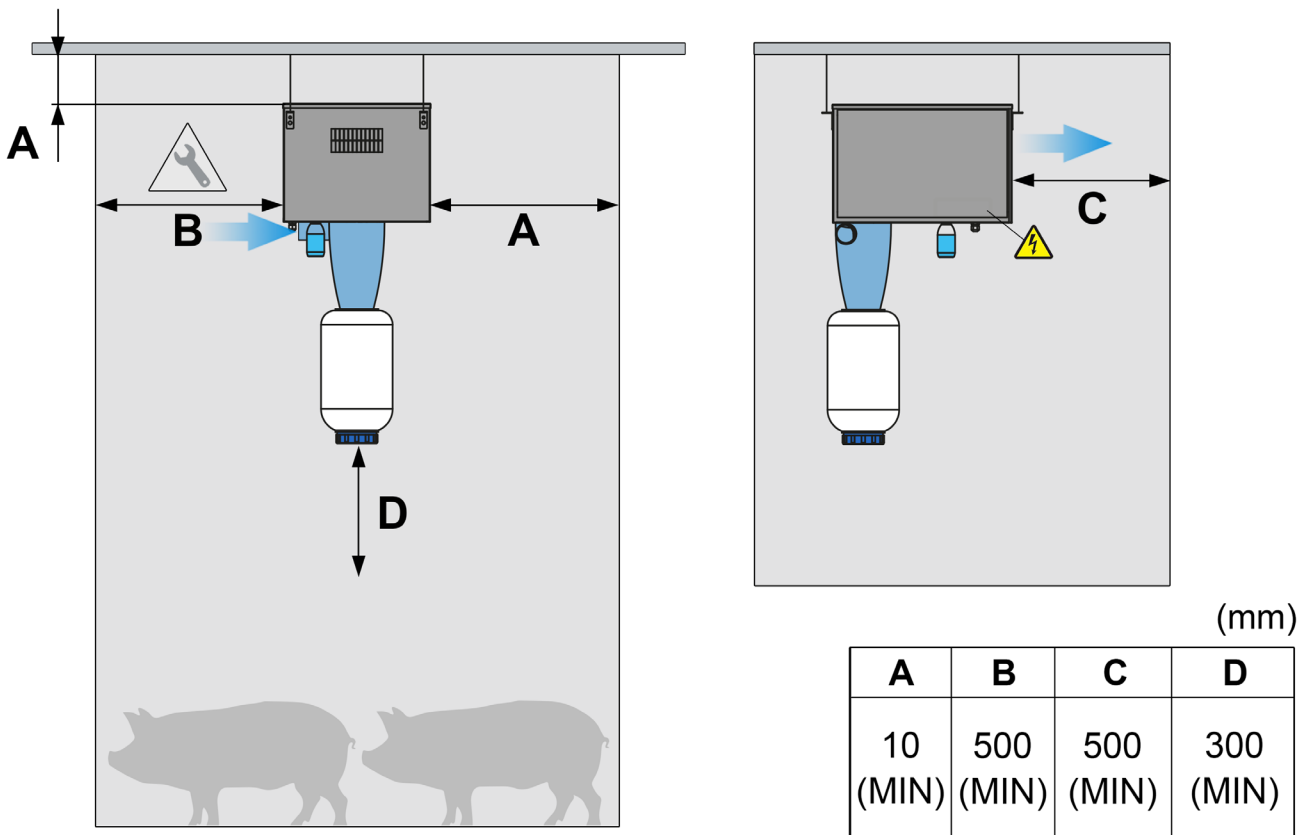
## INSTALLATION



Installation work, connection, disconnection, electrical wiring, mechanical maintenance and service must be done by qualified people observing these instructions and in accordance with all applicable norms and standards. If the unit is operated with additional controller, please consider its specific instructions.



The electrical connection is made with a shucko connector. It is not necessary to open the service panel to connect the equipment. The equipment fixings are external (in the standard model, located at the top or rear of the purifier). To make a repair or replacement it is necessary to open the service side panel. (see repairs section).



MIN. Recommended minimum distance.

Be careful, the more free space you give to the equipment, the better air quality you can get. For this, it is necessary to respect the following installation measures:

Suction plane: Minimum free area of 200mm (recommended to clear the maximum space to facilitate the suction of particles).

Discharge plane: Minimum free area of 500mm (it is recommended to clear as much space as possible to make it easier for the OH to spread throughout the room (Dimension C).

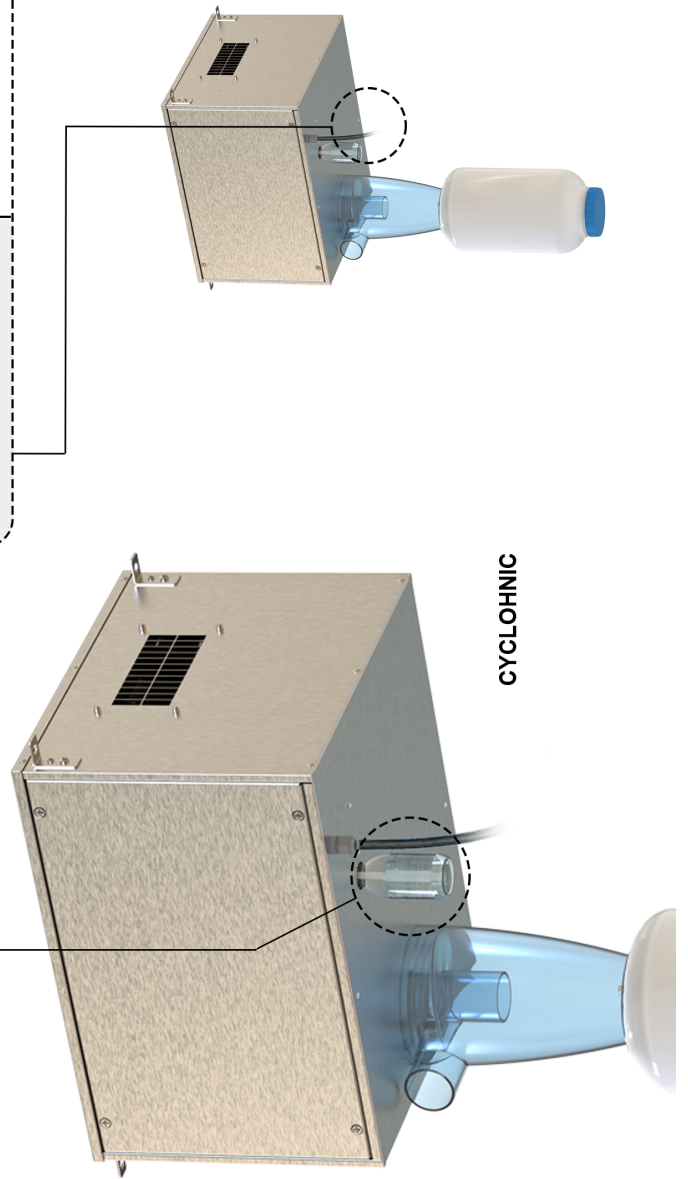
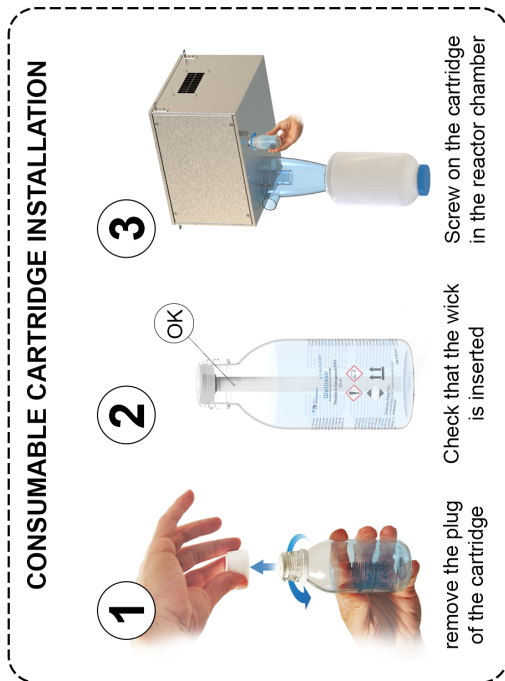
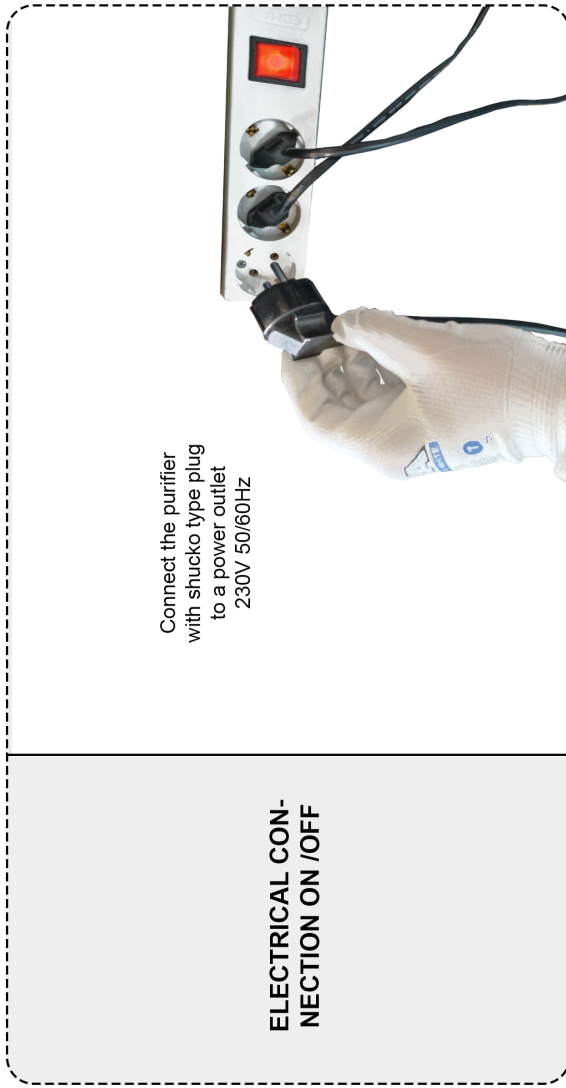
Upper plane: Minimum separation with the ceiling of 10 mm (Dimension A).

Lower plane: Minimum free area of 300mm from cyclonic tank (cartridge replacement and emptying of the cyclonic tank) (Dimension D).

Maintenance plane 500mm free area, recommended 1 metre.

Opposite plane to maintenance 10mm.

# CONNECTION DIAGRAM



## Power supply

The Cyclohnic air purifier has a 3-meter, 3-way cable (line, neutral and earth) that must be connected to a 230Vx1 50/60Hz power outlet with the Shuck-type plug that it incorporates.

A switch can be connected between the equipment and the power outlet. In this way, you can unplug the equipment easily.



## Fixations

The equipment has four fixing angles located at each corner of the box (see location in the model characteristics section).

The anchor must be sized according to the weights of the Cyclohnic indicated on the technical data page. Installation can be done using threaded studs, turnbuckles, or other supports. See supports in accessories.

## TRANSPORT AND STORAGE



**ATTENTION! Heavy object.**  
**Do not stand under the suspended load during its transport or assembly.**

Store in a dry place protected from the elements. If the packaging is open, cover the purifier to protect it from dust. Do not step on or place heavy loads on it to avoid damage to the material. Storage temperature between -20°C and +40°C.

When transporting the material, you must ensure that it is not damaged by the forklift. (possible penetration of the fork in the packaging). Observe the instructions on the packaging. Includes a consumable with disinfectant liquid (hydrogen peroxide solution).

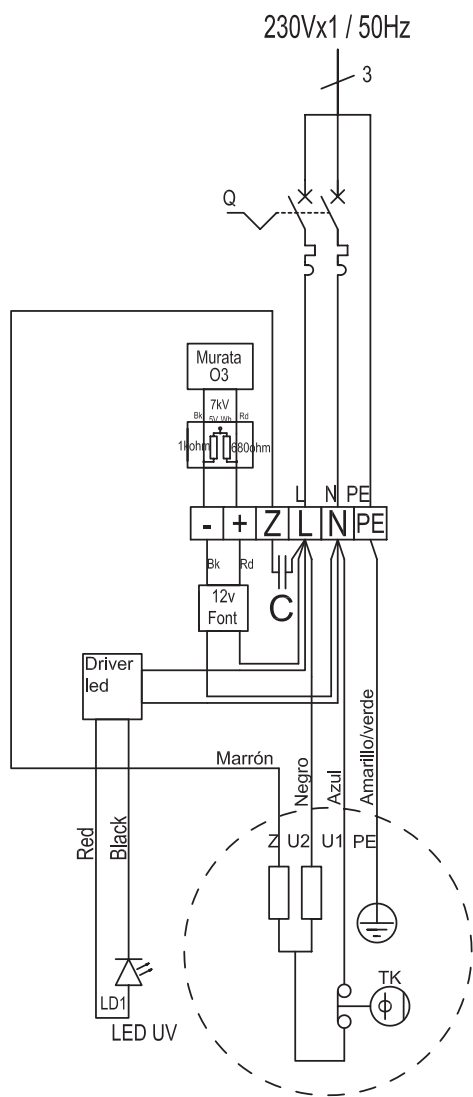


(EN) CAUTION: Causes skin irritation. Causes serious eye irritation. Keep away from combustible materials. Wash hands and forearms thoroughly after handling.  
IN CASE OF CONTACT WITH EYES: Rinse cautiously with water for several minutes. Remove contact lenses when they are present and can be done easily. Continue with the wash.  
IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.  
Store in a well ventilated place. Keep the recipient hermetically sealed. Keep out of the reach of children. Dispose of contents/container at an approved waste disposal facility.

## OPERATING INSTRUCTIONS

To put the device into operation, it is only necessary to connect it to a voltage of 230Vx1 50/60Hz, as indicated in the electrical diagram on the next page. The operation of the equipment is without regulation. Once connected to the current, the fan will start operating at its maximum flow rate, the photocatalysis will start its function and, if the cartridge has been inserted, the device will generate OH.

# ELECTRICAL SCHEMES



ESQUEMAS ELÉCTRICOS DE UNIDADES DE VENTILACIÓN  
WIRING DIAGRAMS OF VENTILATION UNITS

Cyclonnic

Pág./ Page 1 de/ of 1  
Doc. WELDOE07070  
R0 - 15/02/22

## Technical features

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Specially designed to improve the air quality and minimize the transmission of pathogens on livestock, dairy or animal centres.

Combines a double patented purification technology through the generation of hydroxyl radicals  $\text{OH}\cdot$  and the effect of photocatalysis.

Innovative OH active technology with efficient production of hydroxyl radicals, which sanitize both air and surfaces through a chain reaction.

Through Advanced Oxidation Processes (AOP) inactivates pathogenic microorganisms (viruses and bacteria), improves air quality (reducing volatile organic compounds and suspended particles) and eliminates odours.

Kleenfan technology with photocatalytic action fans. UV-A rays, from the long-life LED, act on the titanium dioxide of the turbine generating Reactive Oxygen Species (ROS) that, through oxidation / reduction reactions, deactivate a wide range of pathogenic microorganisms (viruses and bacteria). It mineralizes most of the pollutants present in urban areas produced by vehicles and industry (NOx, SOx, COx, formaldehydes, VOCs, etc.).

Double filtration stages to catch air particles:

- Cyclone dust remover with collector.
- G4 (ZLM) according to EN779 standard.

Plug&play equipment without regulation.

Self-supporting stainless steel housing, extremely robust to guarantee a long life in corrosive environments, prepared for ceiling suspended installation.

Aspiration through the cyclonic filter. The filter incorporates a tank with a practical drain plug for maintenance when the tank is full.

Double inlet centrifugal fan driven by an external rotor motor with very low consumption and noise level.







Flow  
(m<sup>3</sup>/h)

110



Energy consumption  
(Wh in 1h)

82



Current  
(A at 230V-50Hz)

0,36



Weight  
(Kg)

14,5

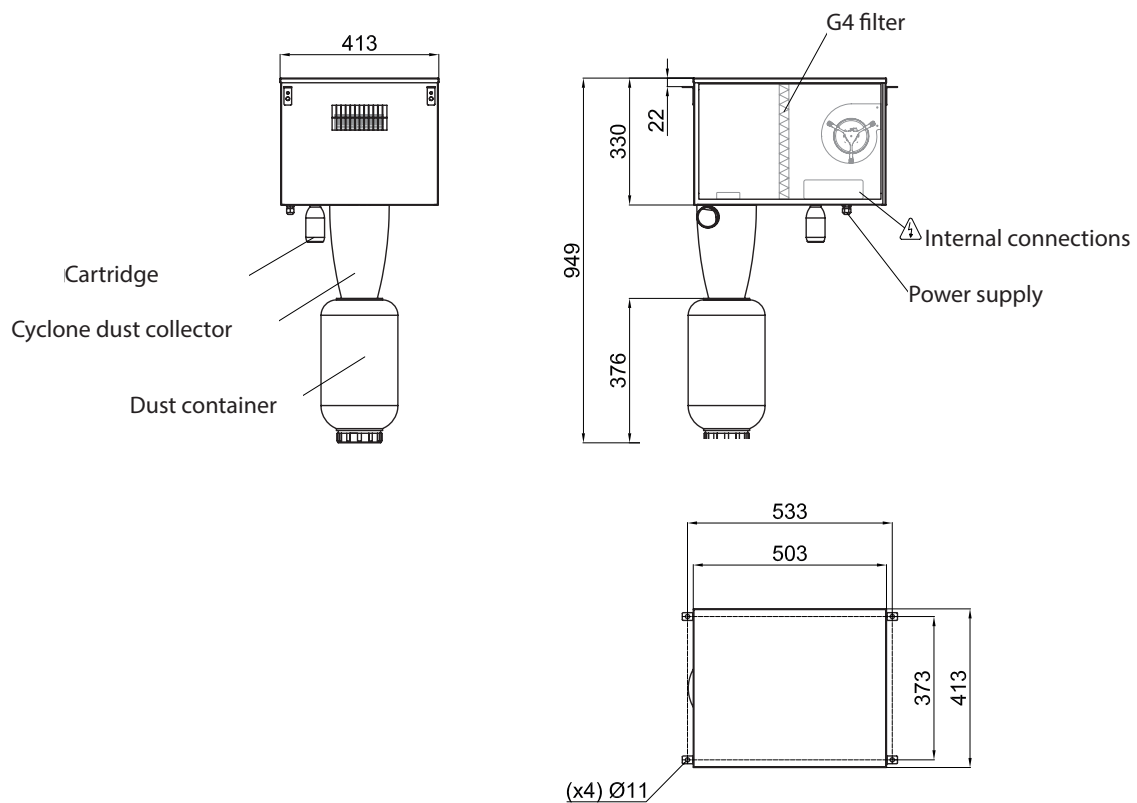


Sound level  
(dB at 3m)

55

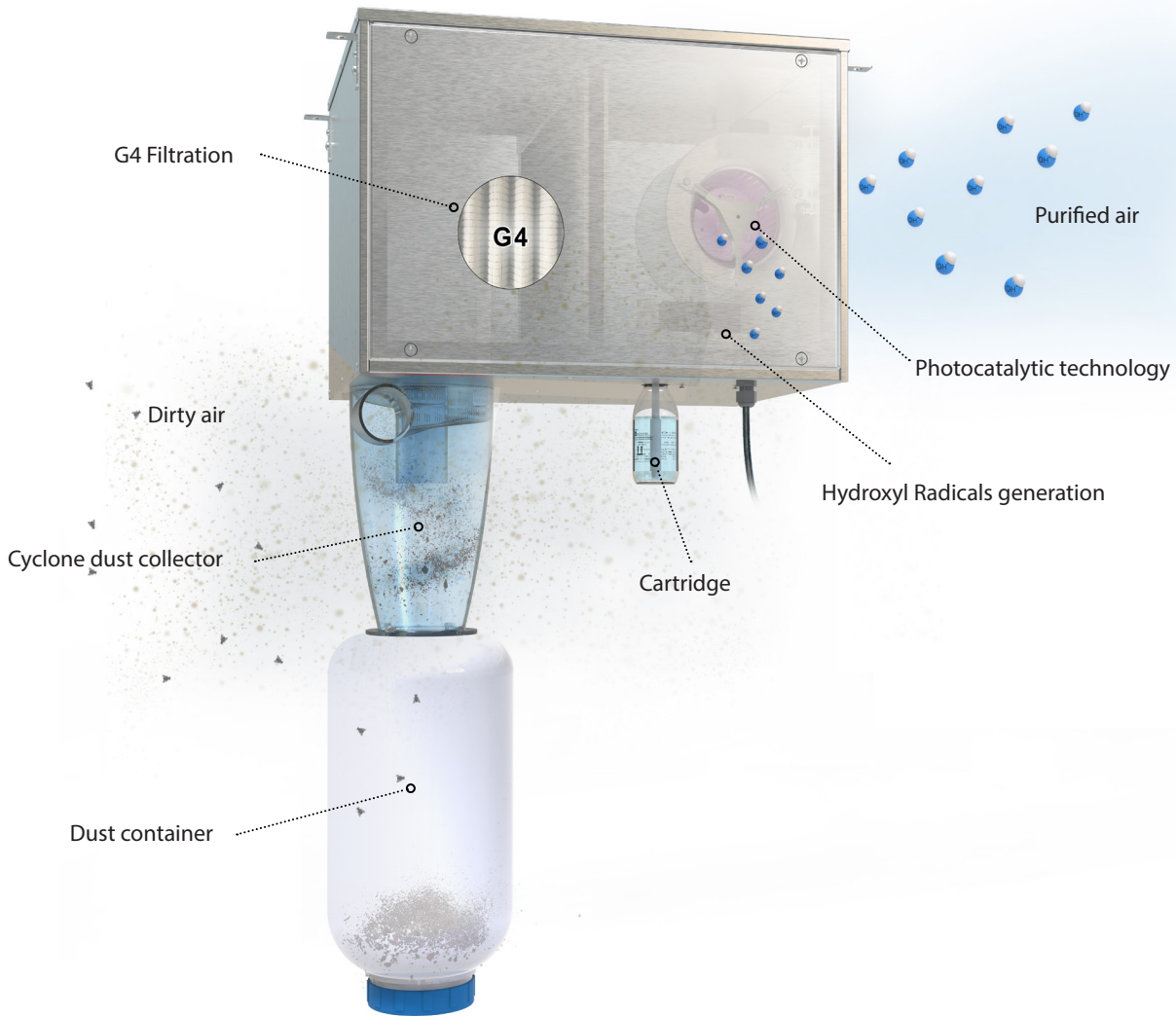
## Dimensions

The equipment has a compact design, with total dimensions of 533 x 413 x 949 (mm), including the cyclone collector and the dust and particle container tank.



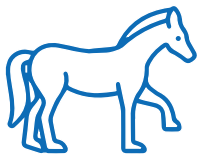
## Functioning

The cyclone dust collector captures the large particles and precipitates them into the container. The air that passes through the equipment is filtered and subsequently purified due to the action of photocatalytic technology. Also, Cyclohnic generates hydroxyl radicals that expand through a chain reaction (active technology) to purify the air and surfaces in the room where it is installed.



## Applications

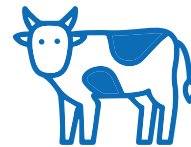
Cyclohnic is suitable for all types of livestock farms, whether for breeding, housing or feeding animals. It is ideal for all types of livestock.



Equine  
(horses, donkeys and mules)



Porcine  
(pigs)



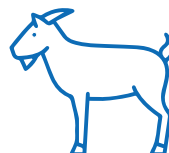
Bovine  
(cattle, cows...)



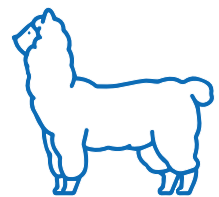
Avian  
(chickens, turkeys, ducks...)



Ovine  
(sheep and lambs)








Goat  
(goats)



Exotic  
(camels, alpacas, ostriches...)

## MAINTENANCE INSTRUCTIONS

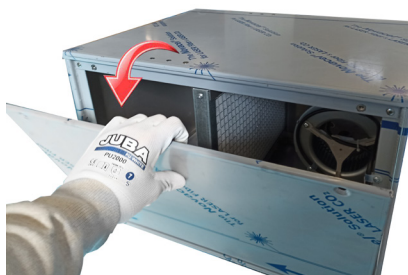
	<b>For safety reasons, before proceeding with cleaning, disconnect the device from the current.</b>
  	<b>Do not open the lateral service panel if the current is still connected (risk of electric shock, entrapment in the fans and UV-A light glare).</b>
	<b>Repairs must be carried out exclusively by authorized personnel.</b>

### Indicative maintenance frequency

N° Action	Action	Frequency
1	G4 filter replacement	Recomended at 300 h of usage
2	Tank emptying	Check level when filter G4 is replaced
3	Exterior cleaning	Bimonthly (recomended monthly)
4	Interior cleaning	Bimensual (recomended monthly)
5	Cartridge replacement	Quarterly
6	Electrical consumption and visual checking	Anual (recomended biannual)

### ***G4 filter replacement***

Disconnect the equipment from the current before carrying out maintenance. Remove the maintenance lateral panel and remove the dirty filter.  
Fit the new filter and replace the side panel.



## ***Tank draining***

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Check the fill level of the tank, if it is above half, disconnect the equipment from the current, unscrew the cap and empty the content into a container for proper processing.



## ***Exterior cleaning***

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The cleaning of the exterior of the equipment should be carried out with a damp cloth and a conventional detergent. Do not use caustic or acid-containing detergents.



## ***Interior cleaning***

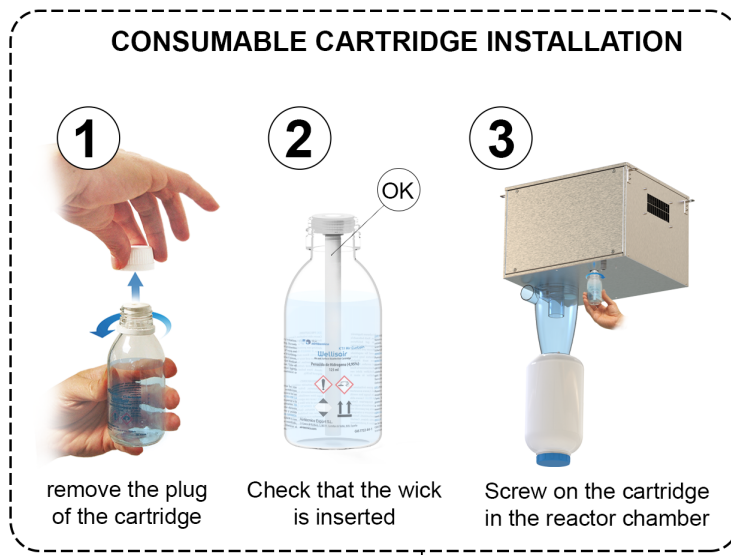
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It is only necessary to clean the area before the G4 filter, the fan area is a filtered area that does not require maintenance. To carry out cleaning, disconnect the equipment from the current and remove the maintenance panel. Next, clean the interior with a vacuum cleaner or damp cloth.



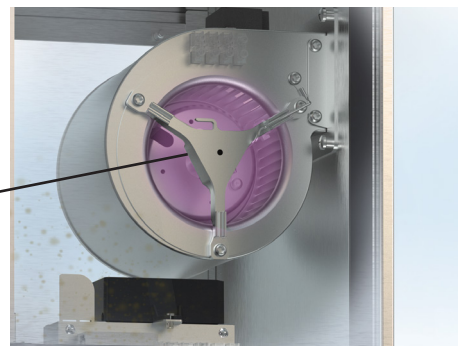
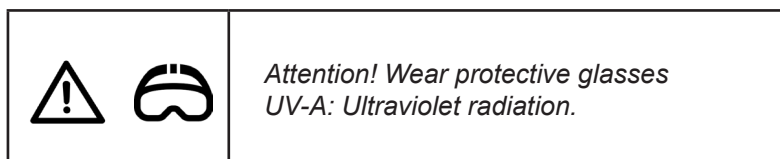
## Cartridge replacement

Periodically check the level of the cartridge and, once finished, replace it with a new one according to the following image:

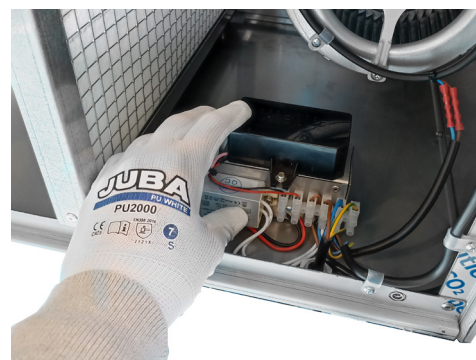
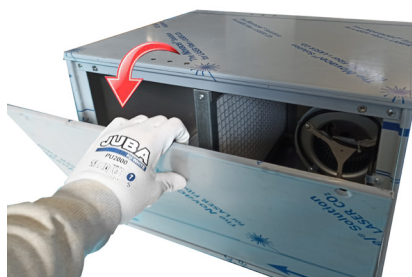


## Electrical consumption and visual checking

With the equipment running, check that the UV LED is on (the color inside the fan is seen as violet). Remove maintenance panel and check that electrical connections are secure.



Remove maintenance panel and check that electrical connections are secure.



Write down the consumption value of the product label located at the lateral service panel. Using an ammeter, verify that the amperage consumption of the equipment is between 85% and 110% of the value indicated on the product label.



## REPAIRS AND REPLACEMENTS

**Assembly and electrical connection must be carried out exclusively by specialized professionals and in compliance with these instructions.**

**Before carrying out any repair, it is necessary to:**



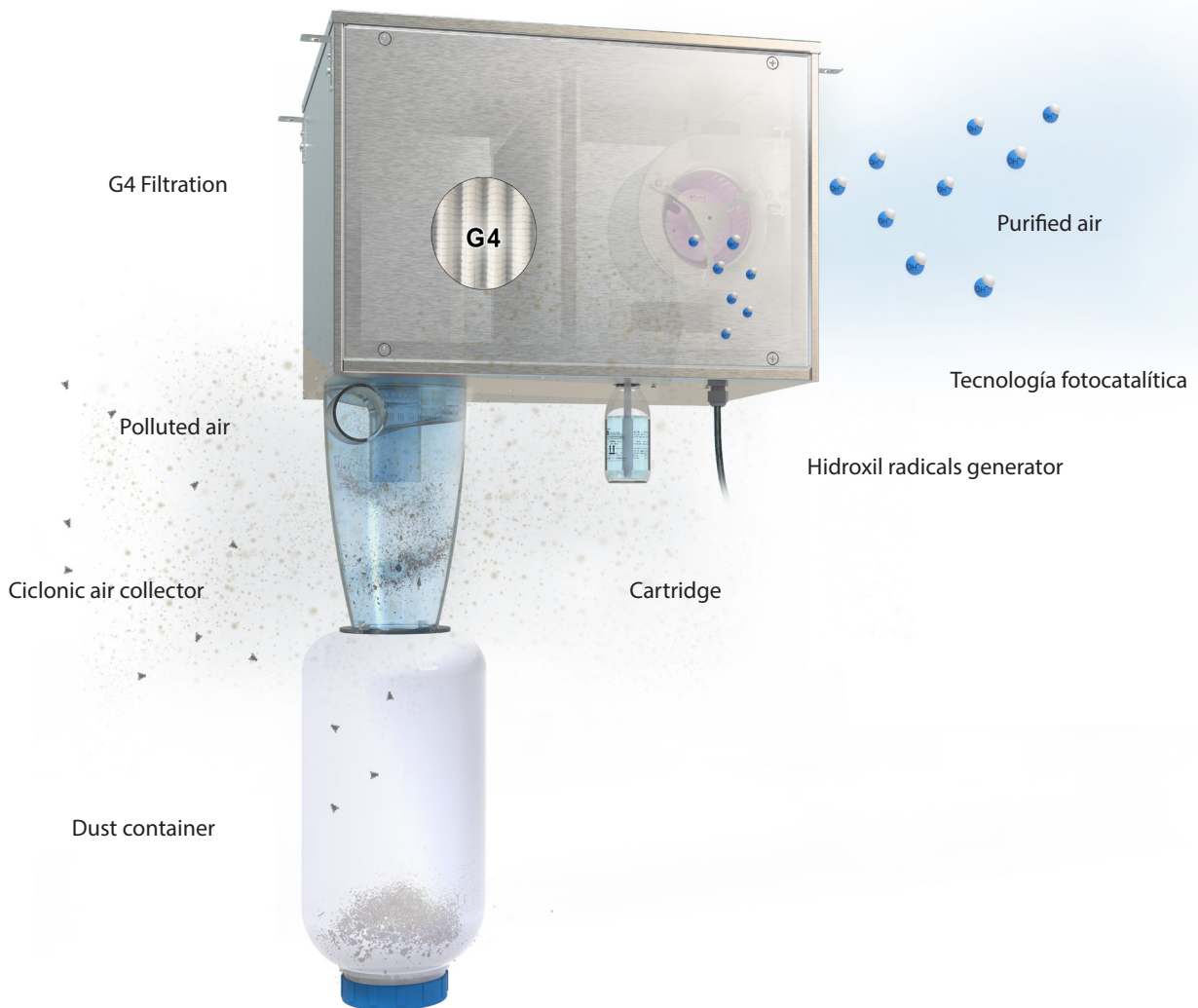
- **Notify staff and indicate that work is being done.**
- **Disconnect the current and protect the circuit breaker.**



- **Make sure there is no voltage to the unit.**

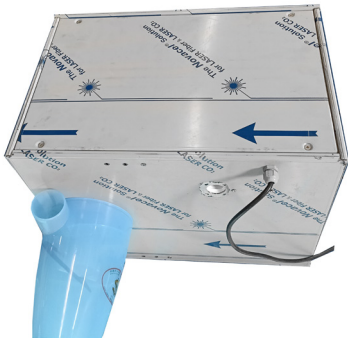


- **Make sure the fan has stopped.**
- **Use only original spare parts.**



## Lateral service panel opening

Remove the four panel fixing screws and then remove the equipment.



## Motor replacement

Before replacing the motor, it is necessary to warn that it is working, disconnect from the current (1), make sure that there is no voltage and that the turbine does not turn.

Remove the lateral service panel (2) and G4 filter (3) for greater maneuverability.

1



2



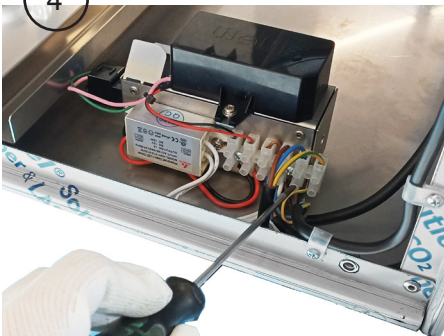
3



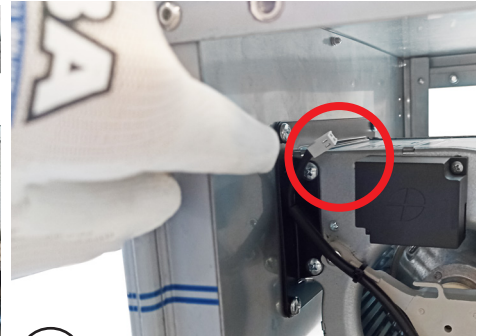
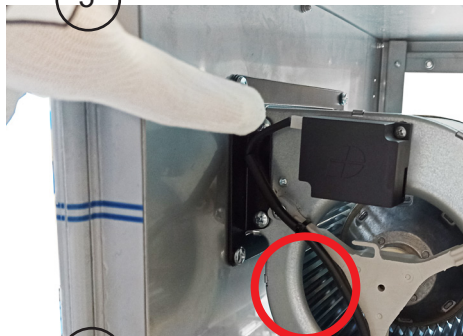
Disconnect the power cable from the terminal block (4), as well as the OH generator power supply (5). Unscrew the four fastening screws of the fan (6) and remove it from the device (7).

Finally, proceed in reverse order to fit the new motor.

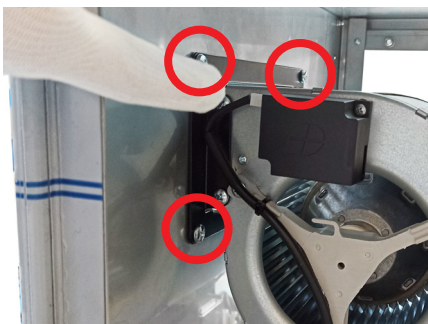
4



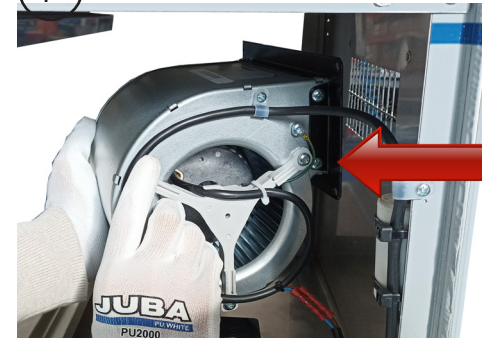
5



6



7



## ACCESSORIES

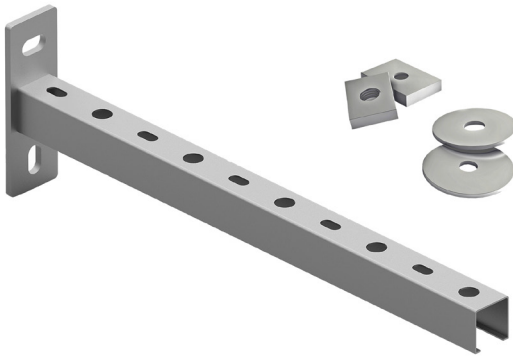
Supports and shock absorbers according to installation (see references in the attached document).



Angle Silentblock



Silentblock rod damper



Rail support



Standard cable clamp





## Electrical feeding

*If the equipment does not work, the error is most likely due to an incorrect terminal power supply.*

*1 - Check that it has been connected to a functional electrical outlet.*

*2 - Check that the current is compatible with the equipment and that the terminal block cables are connected according to the electrical diagram specified in this manual.*

*3- Check that voltage (230Vx1) reaches the equipment. If not, check the power cables.*

### *Considerations:*

*- If the equipment stops recirculating air, check the level of the cyclone filter tank. If it is completely full, it must be emptied so that it can perform the function and allow air to circulate through the equipment.*

*- If, once the tank has been emptied, the fan still does not work, it must be replaced with a new one.*

*- If the UV light does not work, but the rest of the components do, check that the cables of the UV Source are correctly connected.*

*- If the fan turns but does not blow air and the cyclonic filter tank is empty, the G4 filter must be changed.*

## COMFORMITY DECLARATION



Declaration **CE** of conformity / Declaración **CE** de conformidad

Manufacturer **Motors i Ventiladors S.L. (AIRTÈCNICS)**  
Fabricante **Conca de Barberà 6, Pol. Ind. Pla de la Bruguera**  
**08211 Castellar del Vallès (Barcelona) Spain**

We declare, under our sole responsibility, that the product  
*Declaramos, bajo nuestra única responsabilidad, que el producto*

**Air and Surfaces Purification Equipment**  
***Equipo de Purificación del Aire y Superficies***

with models  
*con los modelos*

**Cyclohnic**

is/are developed, designed and manufactured in accordance with the following directive(s)  
*ha(n) sido desarrollado(s), diseñado(s) y fabricado(s) de acuerdo con la(s) siguiente(s) directiva(s)*

**Low Voltage Directive 2014/35/EU**  
***Directiva Baja Tensión 2014/35/UE***

**Electromagnetic Compatibility Directive 2014/30/EU**  
***Directiva Compatibilidad Electromagnética 2014/30/UE***

**Restriction Certain Hazardous Substances Directive 2011/65/EU (RoHS)**  
***Directiva Restricción Substancias Peligrosas 2011/65/UE***

**Eco-design Energy-related Products Directive 2009/125/EC**  
***Directiva Diseño Ecológico Productos Con Energía 2009/125/CE***

applying the following harmonized standards in particular  
*aplicando las siguientes normas armonizadas en particular*

**LVD:** **EN 60335-1:2012 + A11:2014 + A13:2017 + A1:2019 + A14:2019 +**  
**A2:2019 + A15:2021**  
**EN 60335-2-65:2003 + A1:2008 + A11:2012**

**EMC:** **EN 61000-3-2:2014**  
**EN 61000-3-3:2013**  
**EN 61000-6-1:2007**  
**EN 61000-6-3:2007+ A1:2011**

**RoHS:** **EN 50581:2012**

Date / Fecha  
Name / Nombre  
Position / Cargo

13/11/2020  
Jordi Hierro  
Technical Manager / Director Técnico

**MOTORS I VENTILADORS, S.L.**  
ESB58967183 - C/ Conca de Barberà, 6  
08211 Castellar del Vallès  
Tel. 937159988 - Fax 937159989

## IDENTIFICATOR



Conca de Barbera 6 - Pla de la Bruguera  
08211 Castellar del Vallès - BCN (SPAIN)  
Tel +34 93 7159988 www.airtecnics.com

Model: **Cyclohnic**  
Code: **AIRWEL68005**  
Dimensions:  
Motor: Tension: 230 V  
Frequency: 50 Hz  
Intensity: 0,36 A  
Power: 82 kW  
Fan:  
Speed: rpm  
Capacitor: microF  
Air Volume: 300 m3/h  
Filter: Pre-Filter: 110  
Filter:

All air purifiers are identified by a unique serial number, printed on a label located inside the service door. It also indicates the model of the purifier and its technical characteristics (flow rate, technical data of the fans). It is essential to have this number to facilitate possible spare parts or technical information on the purifier in question.

Customer:  
Order nº: Fab nº: **24** Serial nº: **405.309**



Before use observe security rules and operating instructions!  
Avant la mise en service, observer les prescriptions de sécurité et le manuel d'utilisation !  
Antes de su puesta en marcha consultar el manual de instrucciones y normas de seguridad!



## WARRANTY

The warranty extends for one calendar year from the date of delivery. The guarantee is limited to repairing or replacing from our warehouse the products that eventually suffer breakdowns attributable to production defects. Installation costs are borne by the buyer. Products that in our opinion have been used improperly, handled incorrectly, improperly installed, connected to voltages other than the nominal, modified or repaired by unauthorized personnel, or that have suffered damage during transport, are excluded from any guarantee.

*For the validity of this guarantee, it will be essential that it be correctly completed and accompanied by the invoice that proves the date of purchase. In the case of being tampered with, it will lose its validity. It is the sole responsibility of the buyer to take the necessary security measures so that, in the event of a failure of one of the products, no damage occurs to third-party equipment, facilities or people.*



### Warranty card

**Purificator data:**

Model: ..... Serial number: .....

Invoice date: ..... Invoice number: .....

**Buyer data:**

Name: .....

Adress: .....

Country: ..... Telephone:..... Fax:.....

**Seller data:**

Name: .....

Adress: .....

Country: ..... Telephone:..... Fax:.....

**Seal and sign from the buyer**

**Seal and sign from the seller**



*If you detect any errors in this manual, we will be happy to receive your comments, it helps us to continue improving. Airtècnics reserves the right to modify any of the specifications in this manual.*

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