

# **PURIFI**AIR.620

## Complete your hygiene concept with the PURIFIAIR.620

Viruses and other microorganisms are transmitted via extremely fine airborne liquid droplets, called aerosols. These can float and survive in the air even for long periods of time. There is an increased risk of infection in poorly ventilated indoor areas. Therefore, effective room ventilation is a high priority in hygiene concepts, in order to counteract elevated concentrations of hazardous materials. However, room characteristics and winter weather can make natural ventilation more difficult.

Using a PURIFIAIR.620 can significantly reduce viral loads and pollution in indoor areas. Fresh air must be supplied to the rooms via natural or technical ventilation.

#### The PURIFIAIR.620 offers the following advantages:

- >>> The mobile design allows the purifier to be used flexibly in different areas of the building.
- The built-in PM1.0 sensor and colour display allow users to quickly identify and easily read off the particle concentration in the indoor atmosphere in four levels (green/low to red/high concentration).
- >>> PURIFIAIR.620 stand out for their high-quality materials and robust design.
- ))) Large filter units ensure a long service life. The purifiers have low energy requirements, resulting in low usage costs.



Air purifiers should not be considered a substitute for a fresh air supply.

Over time, they only deliver efficient results if the filter is replaced at regular intervals according to the electronic display.

Air purifiers can be used in a wide range of different areas.



# PURIFIAIR.620

- >>> Every PURIFIAIR.620 handles a volume flow rate of 160 bis to 620 m<sup>3</sup>/h (5 operating levels) and is suitable for approx. 100 m<sup>3</sup> room volume (corresponding to a surface area of 40 m<sup>2</sup> and a room height of 2.5 m). A larger number of devices should be used in larger rooms. Our Sales team is happy to help determine the optimal number of air purifiers for a specific application.
- >>> The built-in combination of pre-filters, an E12 EPA Filter and H14 HEPA Filter in accordance with EN 1822 has an efficiency of up to 99.995 % while keeping out particles from 0.1 bis 0.3  $\mu m$  in size.
- >>> H14 HEPA filters are used in areas where protection against infection plays a key role.
  - in size, which is within the effective range of an H14 filter in accordance with EN 1822.
- The coronavirus is approx. 0.12-0.16 Therefore, H14 filters can reliably capture the SARS-CoV-2 virus.
- The SARS-CoV-2 virus survives less than 24 hours in a HEPA filter, as shown in current studies.

What does H14 mean? Detailed technical information is provided on the following page.

## Other features of the air purifier:

- >>> Removes mould spores, pollen and allergens, removes germs and bacteria and neutralises them
- >>> Removes unpleasant odours and harmful gases from indoor air
- >>> Continuous filtration of fine dust particles

#### **TECHNICAL DATA**

Nominal voltage

Rated power (5 level)
Noise level (5 settings)
Quantity of purified air (CADR)

PURIFIAIR.620 \* 220 - 240 V~ 50/60 Hz

Sleep mode 5.5 W to turbo mode 40 W 31 - 49 dB(A) ≈ 620 m³/h in full load operation

14 kg

400 x 400 x 669 mm

### **FILTER TECHNOLOGY**

- **Metal mesh pre-filter** for separating coarse dust, to lower the load on downstream stages of filtra **G4 pre-filter** for separating coarse contamination, extends the service life of the filter (particle size such as pollen, spores, fibres, hairs, insects, etc.) and to protect the downstream stages of filtration
- EPA filter, filter class E12 to separate medium-size particles (particle size > 0.3 µm, including bacteria,
- HEPA filter, filter class H14 in accordance with EN 1822 to separate micro and nanoparticles with an
- Activated carbon filter adsorbs unpleasant odours and gaseous pollutants

An electronic display informs the user when the filter needs to be replaced.

\* The scope of delivery includes the air purifier with remote control, as well as an initial multi-component filter unit.







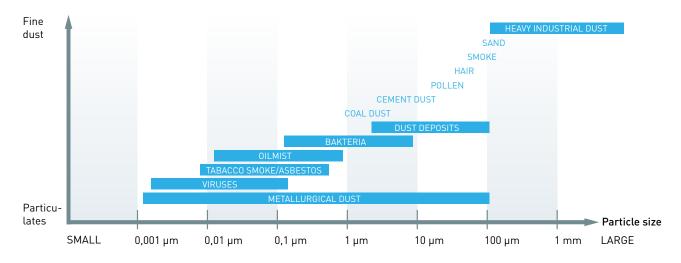


# **Professional expertise**

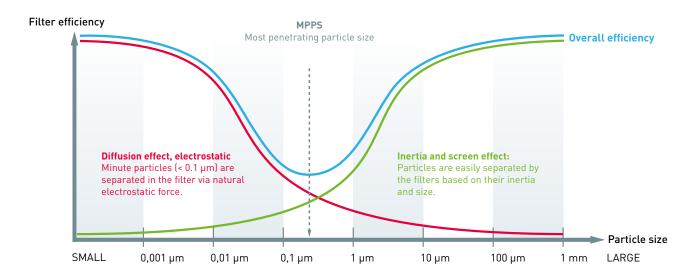
To use air purifiers to remove fine dusts and particulates from the atmosphere, the correct filter must be used for the type and size of particles in question. How do fine dusts and particulates differ, and what kinds of filters can be used to clean dirty indoor air? This information will help you find answers to these questions.

Are you interested in air purifiers, and need further information? Contact our experts at sales@chemstore.ie, call 061 327 792 or visit chemstore.ie.

# Airborne particles come in different sizes:



# Basic filter technology principles





The most critical particles have a diameter of approx.  $0.3 \, \mu m$  and are the most difficult to remove (technical term MPPS = Most Penetrating Particle Size). The MPPS serves as the basis for defining the efficiency of particle filters.

The filter classes are defined based on the efficiency of separating MPPS. In Europe, particulate air filters are differentiated into **three groups**:



High-efficiency particulate air filter (= group E)



High-efficiency submicron particulate air filter (= group H)



85% **E10**  Efficiency

99.999995%

U17

# Overview of filter classes, incl. relevant degree of efficiency:

Filter classes	Integral value Average value over the entire filter surface		<b>Local value</b> Point value at the weakest part of the filter	
	Efficiency (%)	Penetration (%)	Efficiency (%)	Penetration (%)
E10	≥ 85	≤ 15		
E11	≥ 95	≤ 5		
E12	≥ 99.5	≤ 0.5		
H13	≥ 99.95	≤ 0.05	≥ 99.75	≤ 0.25
H14	≥ 99,995	≤ 0,005	≥ 99,975	≤ 0,025
U15	≥ 99.9995	≤ 0.0005	≥ 99.9975	≤ 0.0025
U16	≥ 99.99995	≤ 0.00005	≥ 99.99975	≤ 0.00025
U17	≥ 99.999995	≤ 0.000005	≥ 99.9999	≤ 0.0001

Efficiency: Percentage of particles separated / penetration: Percentage of particles that pass through the filter



**The coronavirus** is approx. 0.12 – 0.16 in size, which is within the effective range of an H14 filter in accordance with EN 1822.



