The Mobile Aerosol Filter

Krantz VIRUSPROTECT

Creating a safer indoor environment



Krantz VIRUSPROTECT

The unique aerosol filter with antiviral filter coating and optimised clean-air zone

Krantz have been innovating and delivering high-performance air filtration and distribution solutions for over 50 years within the most demanding and hazardous applications where safety is critical, such as Nuclear Installations, High-Security Laboratories, Cleanrooms and Hospital Isolation Wards.

We are now able to bring this wealth of specialist experience to meet the current global challenge of Coronavirus, enabling the maximum possible protection to the public and staff within shared indoor spaces - helping businesses regain customer and staff confidence.

Developed in our state-of-the-art R&D facility in Aachen, Germany, Krantz VIRUSPROTECT uses mobile aerosol filters to great effect by removing Coronaviruses and other airborne contaminants from indoor air. Designed specifically for flexible use and rigorously tested under sound scientific principles, Krantz VIRUSPROTECT perfectly complements established individual Coronavirus precautions with efficient, cutting-edge technology.

is *the* Anti-Coronavirus Formula.

With a purification rate of up to 99.995%, coronavirus particles and many other (flu) viruses, bacteria, spores, and allergens are reliably filtered out and inactived.

Perfect coronavirus protection through large-scale clean air circulation and our patented antiviral filter coating

Patented antiviral coating

The heart of the Krantz VIRUSPROTECT is the highly effective, patented antiviral coating of its filter housing and filter media. Coronavirus particles and other microorganisms are safely retained within the filter stages. The coating of the filter material and its surfaces reliably inactivates coronavirus pathogens and many other harmful microorganisms. The passive inactivation abilities of the Krantz VIRUSPROTECT avoid the risks and energy consumption associated with other technologies such as UV-C sterilization and thermal processes.

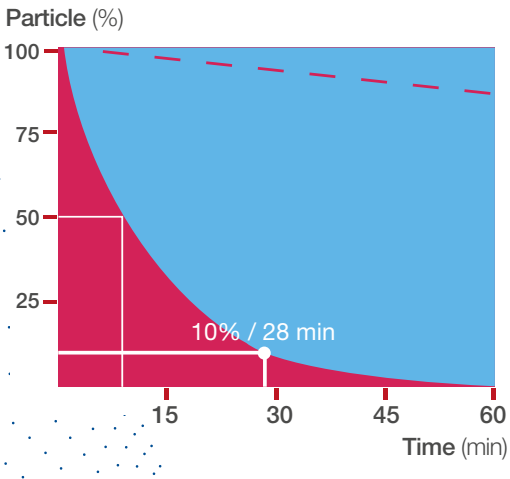
Optimised clean-air zone

The Krantz VIRUSPROTECT incorporates high performance air outlets to maximise the clean air zone. The fourteen jet nozzles of the broad multiplex outlet on the front of the device are individually adjustable and, when combined with the additional twist outlet on the top of the unit, create a widely discharged, turbulent clean-air path. This minimizes the particle load in the occupied area, pushing the particles close to the floor and feeding them continuously to the air inlet on the underside of the Krantz VIRUSPROTECT unit.

Easy handling in daily operation

The construction and surfaces of the Krantz VIRUSPROTECT are designed for robust everyday use and to strict medical standards. An integrated, adjustable, CO_2 sensor is also included. The specially-coated H14 HEPA filter elements can be used effectively for up to 12 months, and are easily replaced without any additional protective measures or specialist training. The spent filters can be disposed of in the standard waste stream.

Expansion of a cylinder of clean air in an experimental setup



Krantz VIRUS**PROTECT** proven performance

Safety: Passive filter technology

This particle reference curve shows an efficient reduction of aerosol particles through VIRUSPROTECT filtering. After approx. 30 minutes of operation, the number of aerosols in the room air is less than 10% of the initially-measured starting value. According to current knowledge, the remaining aerosols can no longer trigger an indirect infection

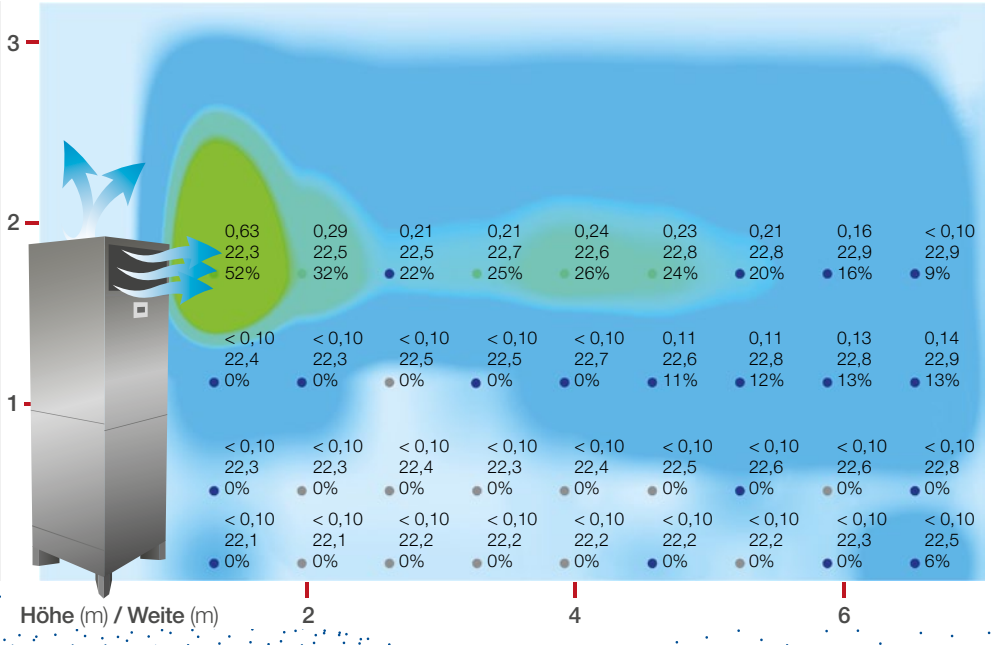
Indoor comfort: Uniform room temperature and air speed

These significant aerosol reduction values are the result of a high performance ventilation system. A broad multiplex outlet on the front and a radial outlet on the top of the air circulation unit ensure ideal room airflow. Substances hazardous to health are filtered out and inactivated, whilst comfortable conditions are maintained.

The following values were determined from over nine measuring points at four room heights:

- air speed m/s
- temperature °C
- risk of drafts %

Flow measurements confirm excellent indoor comfort with uniform, pleasant levels.



Measurement of noise emissions

Krantz VIRUS**PROTECT** at a glance

- Collecting and re-circulating of all of the room air for the greatest possible safety
- Patented antiviral coating of the filter housing, pre-filter and H14 HEPA filter
- Safe filtering and inactivation of up to 99.995% of coronavirus particles and other microorganisms: (flu) viruses, bacteria, spores, allergens, hospital germs
- Contamination-free filter replacement and maintenance
- Elegant design made of brushed stainless steel
- Quiet operation and low energy consumption
- Integrated CO_2 sensor with alarm function
- No UV-C light, no thermal sterilization, 100% ozone-free

Specifications

Dims: (WxDxH): 0,68 x 0,70 x 1,83 m
Weight: 140 kg
Supply voltage: 230 V, 2A, max. 0,3 KW

Volume flow	Consumption	Sound pressure level
250 m³/h	24 W	30 dB/A
500 m³/h	60 W	36 dB/A
750 m³/h	120 W	42 dB/A
1000 m³/h	230 W	48 dB/A

Performance

Broad multiplex outlet: Front outlet, adjustable, Krantz Type BF-V
Radial outlet: Top outlet, Krantz DD-N
Pre-filter stage: Coated filter element ISO ePM10 50% in accordance with ISO 16890
Activated carbon filter: Polyurethane ester foam proofed with activated carbon
HEPA filter stage: Coated HEPA filter element H14 in accordance with EN 1822
Inner lining: Coated sound dampener
Fan: EC fan with constant volume flow control

Write to us: virusprotect@krantz.de
Visit us: www.krantz.de/de/virusprotect

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Operating Manual

Founded in 1882 by engineer Hermann Krantz, the Krantz company today develops, designs, manufactures, and markets air ventilation, heating, and cooling systems for ceiling, wall, floor, and facade installation. Moreover, Krantz produces filter and damper systems, is an expert in industrial exhaust air purification, and has made a name for itself with its ventilation systems in power plants, nuclear or otherwise, and industrial facilities, including in their design, construction, maintenance, and testing.

At its in-house Research & Development Center, R&D is carried out on everything to do with air in a laboratory test hall with an area of 1000 m^2. Tailor-made ventilation components are produced in the company‘s own production facilities in Aachen and Mallersdorf (Bavaria).

Krantz is the market leader in filter technology for biosafety laboratories and ventilation systems. Its services have been supplied to numerous leading institutions, such as the Robert Koch Institute, the Friedrich Löffler Institute, and the Bernhard Nocht Institute, among many others.

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