BAUER KOMPRESSOREN
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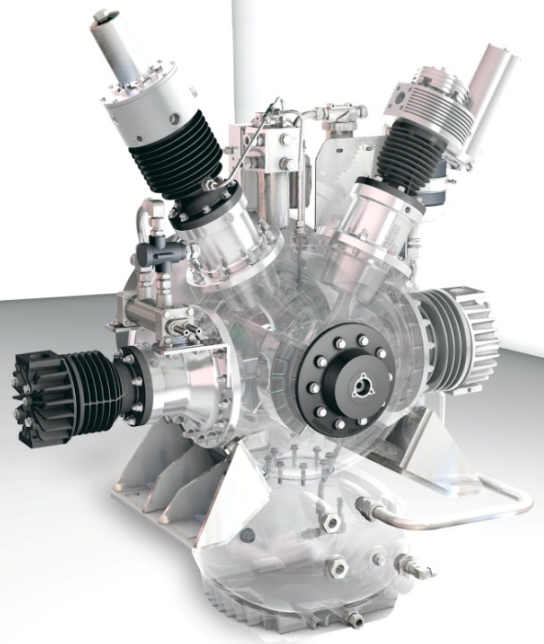
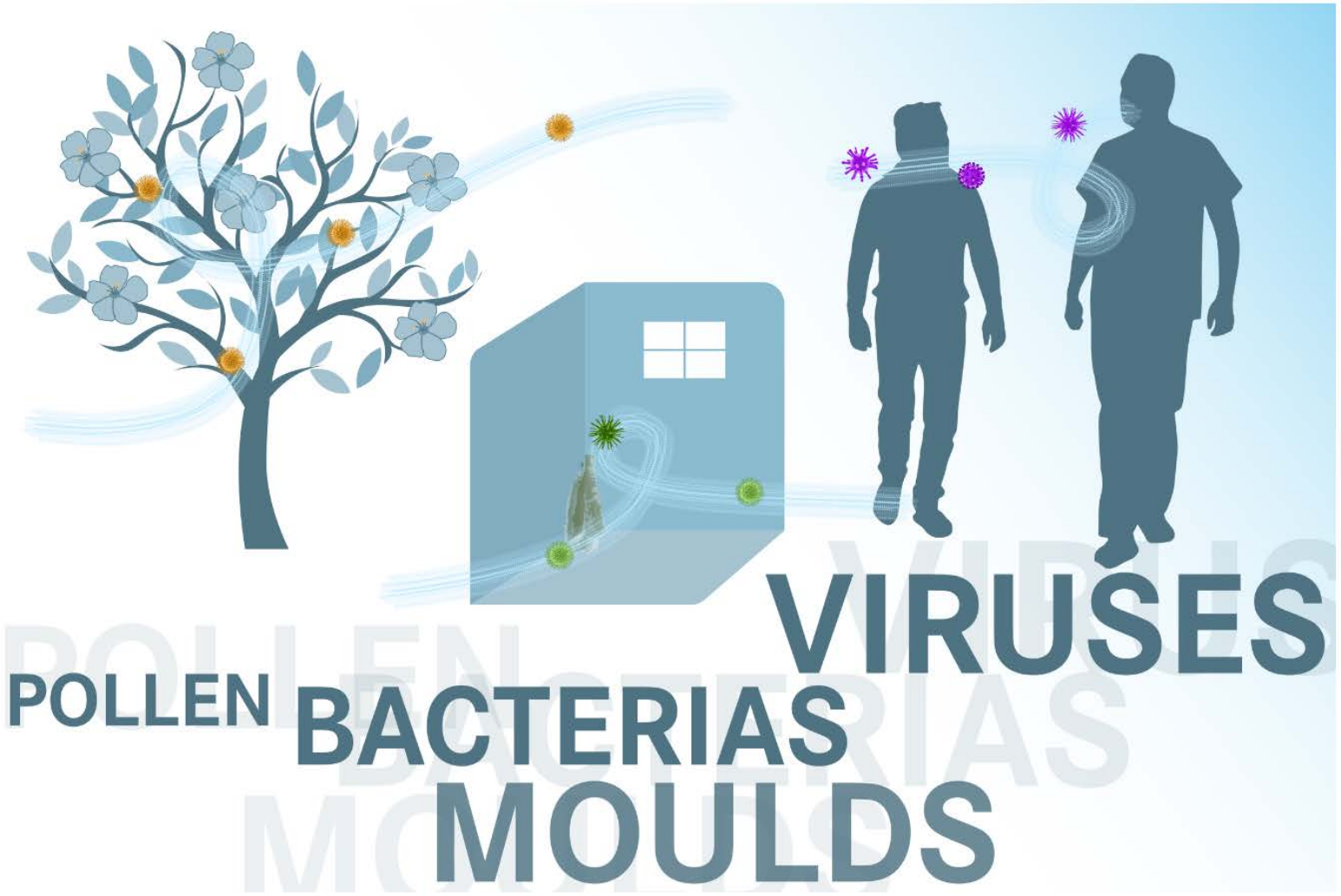
B-VIRUS FREE – INACTIVATION OF CORONAVIRUSES, BACTERIA, POLLEN AND MOULDS



THE INVISIBLE FOES



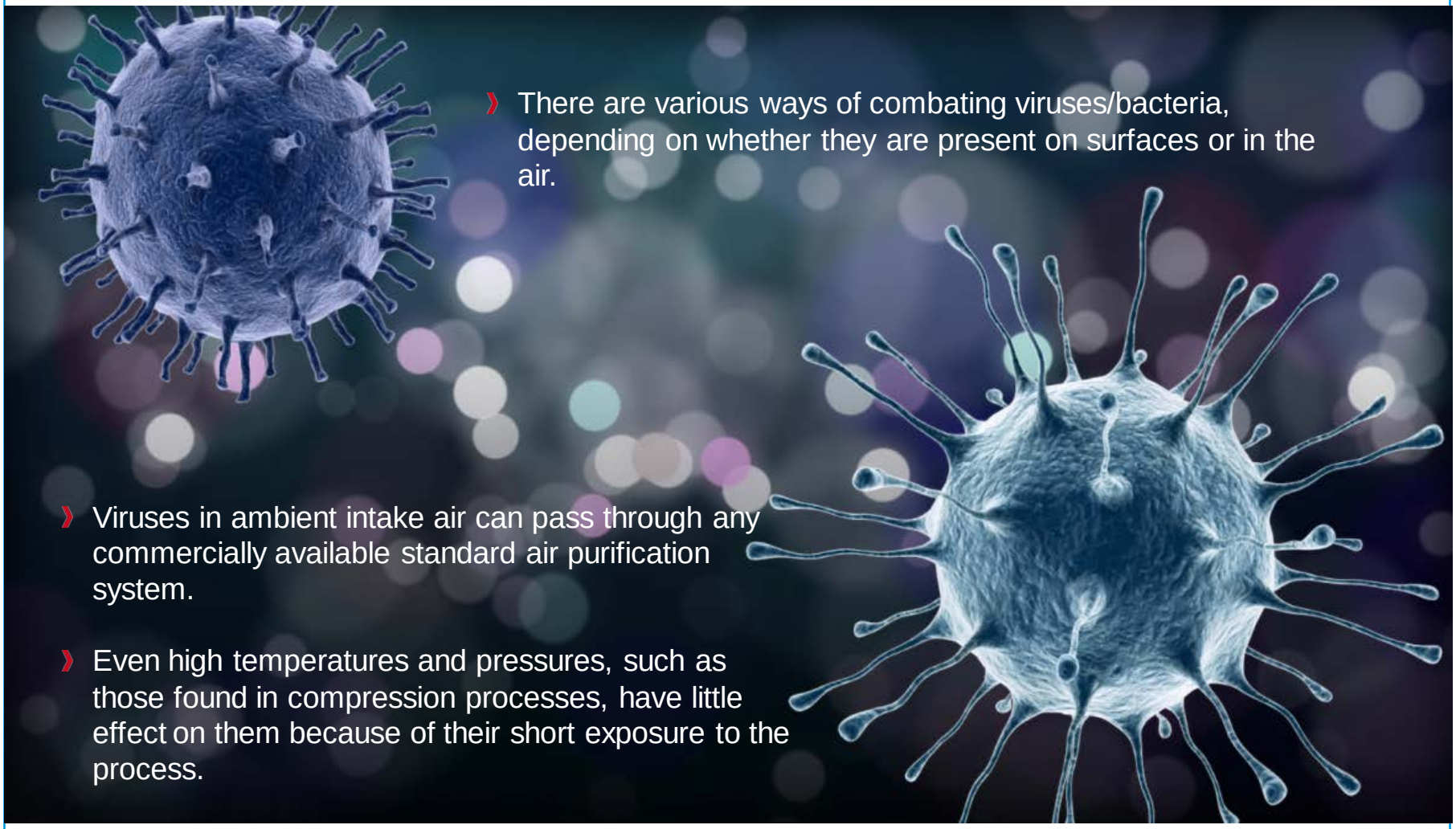
WHY ABSOLUTELY PURE BREATHING AIR IS SO VITAL TODAY

A new threat now lurks in the form of viruses like SARS-CoV-2 as well as bacteria and moulds.
These organisms are:

- Invisible.
- Easily transferable.
- Not measurable by sensors.

- Able to spread at lightning speed by contact or droplet infection.
- Able to infect even without direct physical contact.
- Even breathing in any virus-contaminated air is enough to cause infection.

HOW CAN VIRUSES/BACTERIA BE DESTROYED?



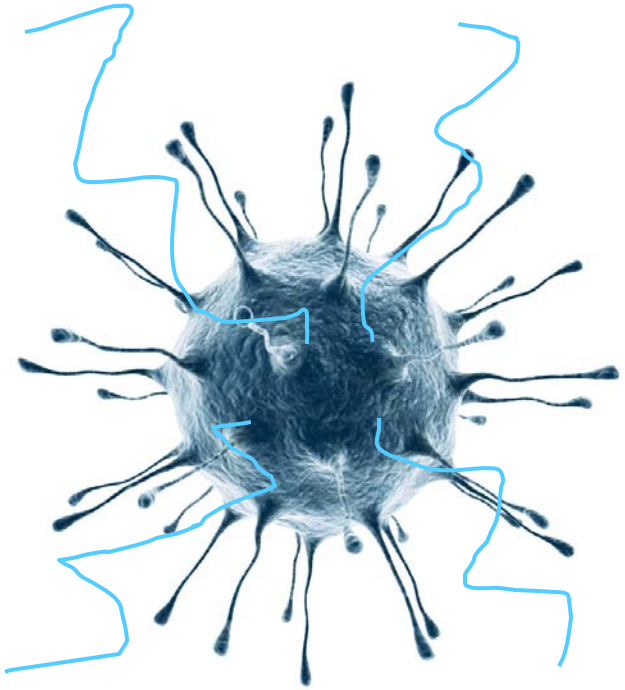
- There are various ways of combating viruses/bacteria, depending on whether they are present on surfaces or in the air.
- Viruses in ambient intake air can pass through any commercially available standard air purification system.
- Even high temperatures and pressures, such as those found in compression processes, have little effect on them because of their short exposure to the process.

HOW ARE VIRUSES/BACTERIA INACTIVATED BY B-VIRUS FREE?

Inactivation using UVC radiation

Brilliantly simple: the chemical- and ozone-free technology of B-Virus Free uses a special UV light source to destroy these pathogens in the intake air flow before they can reach the compressor.

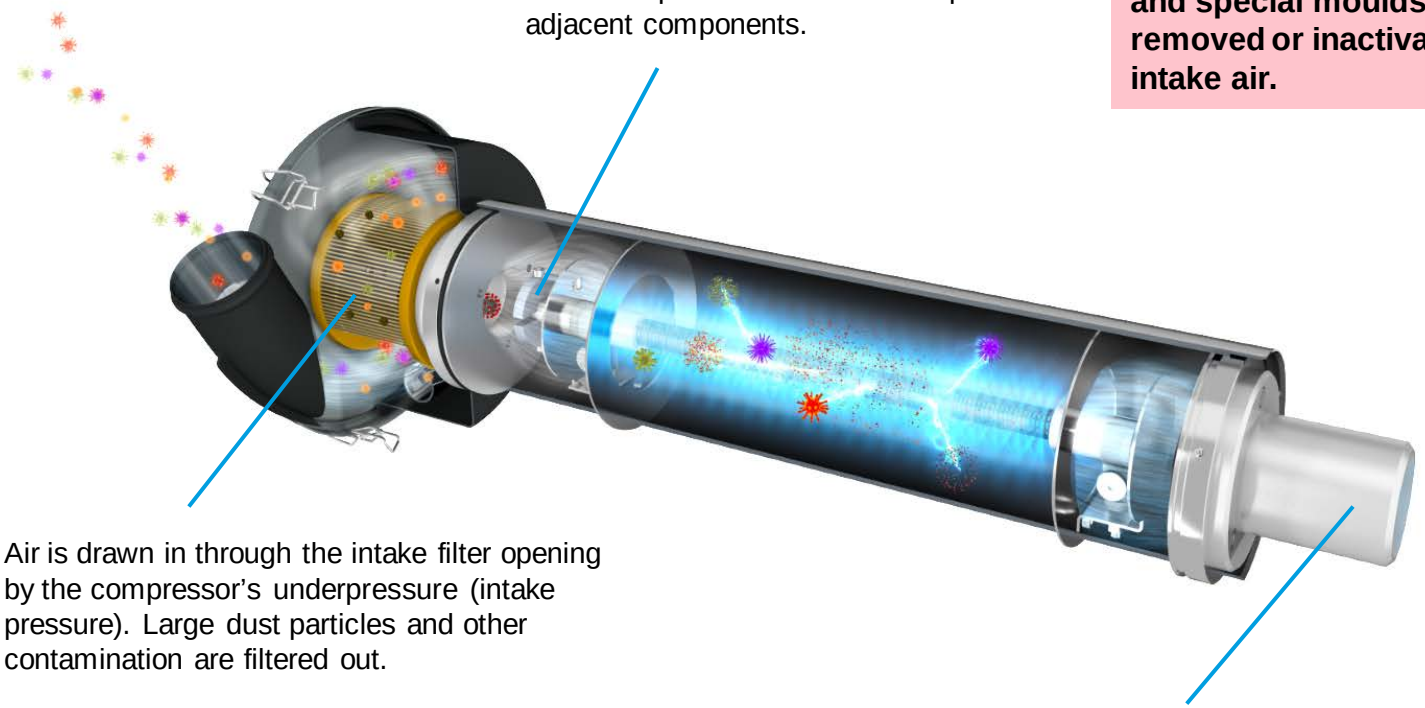
The highly effective 254-nm UV wavelength is absorbed by the pathogens' RNA i.e. DNA, where the photons destroy the bonds between the RNA i.e. DNA strands of the viruses, bacteria and mould spores and effectively prevent them from reproducing.



HOW B-VIRUS FREE WORKS

The system has a spring construction that absorbs vibration as well as thermal expansion of the UV lamp and adjacent components.

With the B-VIRUS FREE filter, up to 99.9% (but at least 99%) of the corona viruses, bacteria, pollen and special moulds can be removed or inactivated from the intake air.

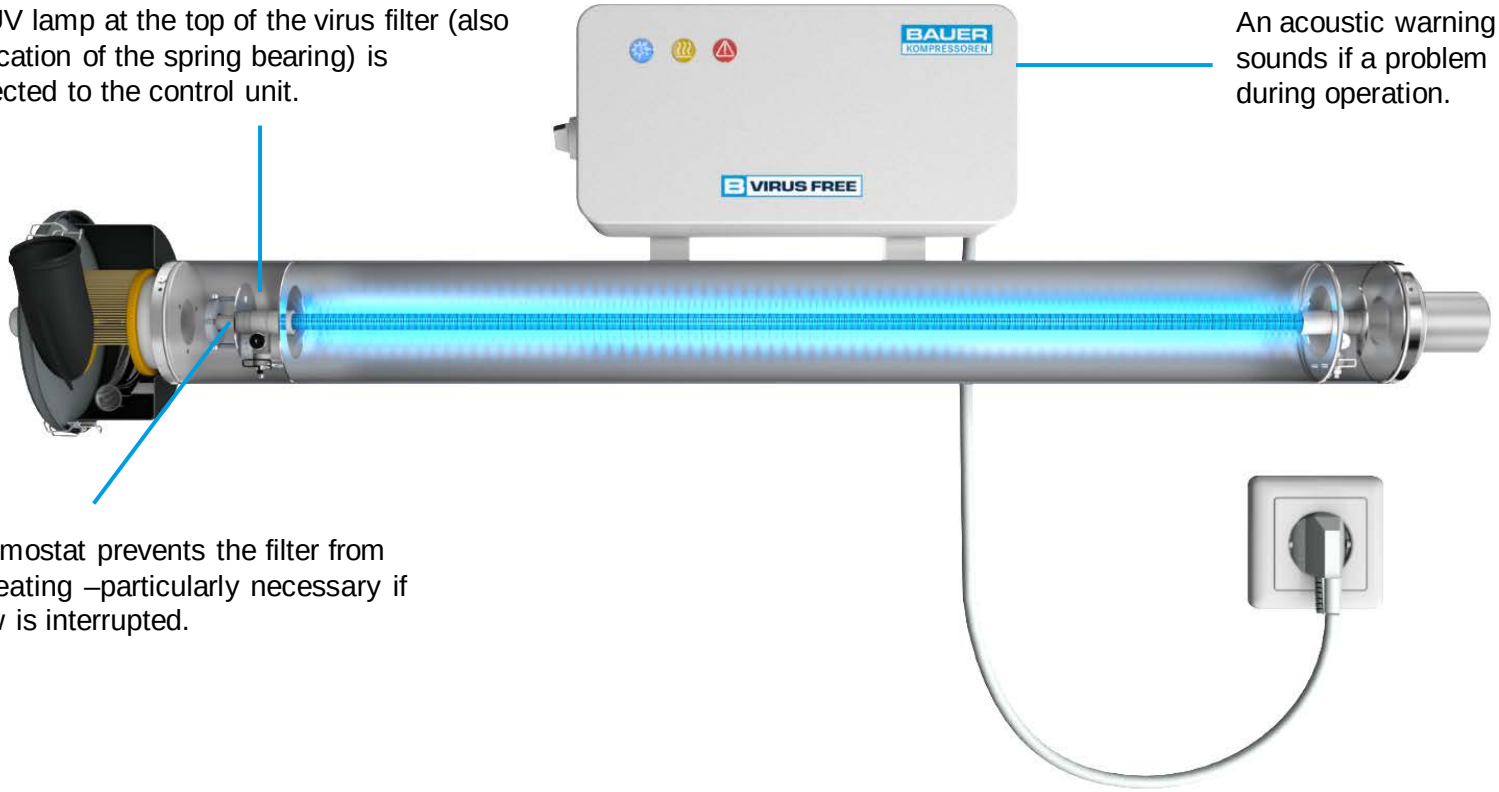


Air is drawn in through the intake filter opening by the compressor's underpressure (intake pressure). Large dust particles and other contamination are filtered out.

After treatment, the air – now free from viruses and bacteria – is fed through a "virus-proof" hose into the first stage of the compressor. It is compressed as normal and stored in breathing air cylinders.

HOW B-VIRUS FREE WORKS

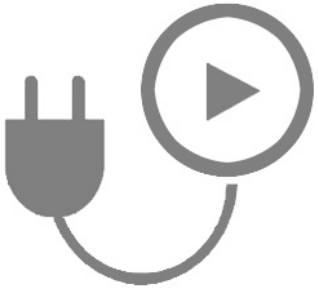
The UV lamp at the top of the virus filter (also the location of the spring bearing) is connected to the control unit.



An acoustic warning signal sounds if a problem arises during operation.

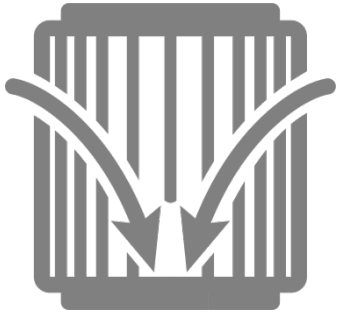
A thermostat prevents the filter from overheating –particularly necessary if airflow is interrupted.

SYSTEM ELEMENTS



Connection

The B-VIRUS FREE protective filter is ready for use in an instant. Simply mount it on a wall or existing system and connect to a 220/230 V (optional: 110V) single phase power supply.



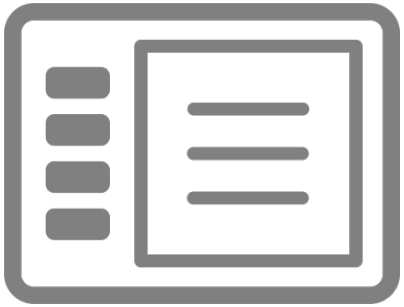
Intake filter

Underpressure in the compressor causes air to be drawn in through the intake opening. Normal dust particles and even pollen are removed from the air by the intake filter.

SYSTEM ELEMENTS

Radiation source

The special UV light source emits high-energy UVC radiation that destroys the molecular bonds, thus destroying the RNA i.e. DNA of the viruses and bacteria. This prevents the pathogens from reproducing.



Control and display

The B-VIRUS FREE protective filter system has a control unit to monitor functions and control the UV light source, with visual (LED) displays and acoustic signals that inform about the operational status.

CONNECTION TO COMPRESSOR

Connection to compressor

The B-VIRUS FREE protective filter is connected to a specially sealed intake hose, which eliminates any potential new contamination by preventing leaks between the protective filter and the compressor block.

Important: For liability reasons, B-VIRUS FREE shall and can be retrofitted to genuine BAUER high pressure breathing air compressors only!

INSTALLATION

- More detailed information to follow -

- Various installation options depending on system type (open, Silent, charging rate).
- Retrofit kits for all types of BAUER prefilters → Leak-tight seal necessary to prevent downstream virus contamination.
- Special spiral hoses with virus-tight connectors.

TECHNICAL DATA

Name / Model	Suitable for charging rates [1]	Dimensions (W x D x H)	Weight [2]
	l/min	mm	
B-VIRUS FREE S	100 – 200	665x250x450	Virus filter: approx.6 kg Control unit: approx. 5 kg
B-VIRUS FREE M	240 - 320	665x250x450	Virus filter: approx.6 kg Control unit: approx. 5 kg
B-VIRUS FREE L	400 – 550	905x250x450	Virus filter: approx.7 kg Control unit: approx. 5 kg
B-VIRUS FREE XL	560 - 850	905x250x450	Virus filter: approx.7 kg Control unit: approx. 5 kg

1 Charging rate of the connected compressor measured with cylinder filling from 0 – 200 bar ± 5%.
2 Including UV lamp; without connecting hoses.

› All other technical data can be found in the data sheet B-VIRUS FREE

OUTLOOK FOR THE FUTURE

Coming up soon...

- Information on retrofit kits.
- Information on connection hoses .
- Version for mobile systems.
- Integrated version.

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