Room air cleaner TAC V+

High-frequency air cleaner “Made in Germany” for virus filtering in open-plan offices, authorities and public institutions

NEW

TROTEC 100% MADE IN GERMANY

H14 HEAT RESISTANT HEPA®

- **Effective air purification and virus filtering:** Designed for permanent operation in open-plan offices, coworking spaces or call centers – virus-contaminated aerosol clouds are drawn in in recirculation mode, virus filtered and blown out again as clean air
- **“Clean-Zones-Areas”:** Establish safe zones with virus-free filtered breathing air at airline level – individually dimensioned according to the number of devices and persons and the set air exchange rate
- **“Plug & Play”** – set up, plug in, switch on, done. Room filtration independent of existing air conditioning and ventilation systems.
- **Saving resources:** 100% environmentally friendly, no chemicals, no installation effort
- **Effective air filtration:** F7 pre-filter and HEPA H14 main filter with 99.995% separation efficiency for particle sizes from 0.1 to 0.2 µm
- **Unique in the world and exclusive to Trotec:** automatic filter regeneration through thermal virus decontamination – first the viruses are separated in the heat-resistant special filter and then regularly thermally inactivated there!
- **High-quality materials and workmanship:** “Made in Germany” – original Trotec manufacture, virus special filter with individual testing and test certificate
- **Flexible positioning:** simply place the mobile TAC V+ where it is needed

H14 clean air capacities	TAC V+	
Maximum discharge air volume without filter in m³/h	2,300	
Outlet air volume in m³/h with HEPA-H14 filter	1,600 [1]	
Clean zone area in m³ at 5 air changes/hour	320	SECURITY LEVEL ↓
Clean zone area in m³ at 10 air changes/hour	160	
Clean zone area in m³ at 15 air changes/hour	107	
Clean zone area in m³ at 20 air changes/hour [2]	80	

[1] Filter efficiency class H14 ≤ 1,200 m³/h certified according to DIN EN 1822
[2] Clean room airline standard

With the TAC V+, you can decide for yourself which security level is best suited to your requirements: the higher the air circulation and thus the rate of air exchange (LW), the lower the time viruses remain in the room air and thus the lower the risk of infection. The level of the air exchange rate also determines the radius of action of each individual high-frequency air cleaner. A basic protection can be achieved from 5 LW, but for a significant risk protection in fully occupied rooms we recommend air exchange rates between 10 and 20 LW, because the primary goal is to prevent breathing the air from different people as much as possible. And if an employee expresses the concern that a higher degree of protection is required, e.g. because he or she belongs to a risk group, this can be adjusted separately for each clean-zone area individually directly on each device that treats the relevant zone in which that employee is located.

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NEW The high-frequency air cleaner TAC V+ reduces the aerogenic risk of infection in all densely occupied common areas – ideal for open-plan offices and public facilities such as administrative or court buildings.

More and more experts confirm that a viral infection via the air is probably the most decisive route of infection. Recent studies suggest that, especially when speaking, viruses are released into the environment in the form of aerosol clouds and can remain in the air for hours.

Play it safe with high-frequency air purification

Trotec promotes aerosol control in indoor air as a decisive measure right from the start and, as the first address for professional air treatment solutions, can therefore also offer you the first highly effective air cleaning device with integrated virus decontamination!

Virus-free air reduces the aerogenic risk of infection to zero

If the room air can be kept largely free of germs and viruses, the aerogenic risk of infection in densely occupied offices is also minimized.

Our high-frequency air cleaner TAC V+ was developed exactly for this task, because it effectively and quickly reduces the dwell time and intensity of aerosol and clouds of suspended matter in closed rooms, thus creating an environment with greatly reduced risk of infection for employees and visitors.

Exterminate aerosol clouds within minutes

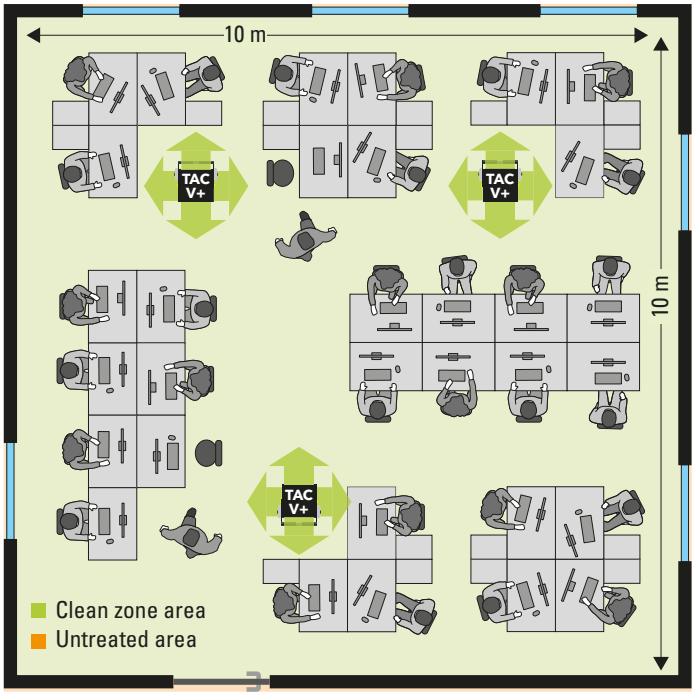
At the installation site, the mobile high-frequency air cleaner creates a "clean zone area" flushed with virus-filtered clean air. In this zone, the ambient air remains largely free of airborne germs and viruses, because the TAC V+ enables the large-volume intake of contaminated room air with effective H14 HEPA filtration and a flexibly adjustable zone flushing with virus-filtered clean air, free of aerosol particles.

The TAC V+ enables the large-volume intake of polluted room air with effective H14 HEPA filtration and a flexibly adjustable flushing of the room, free from airborne aerosols.

Neutralize the danger of infection "as if in flight" and occupy your office space safely in airline style: airlines are allowed to occupy the middle seat – their argument: frequent air changes with efficient HEPA air cleaning. Suction in the floor area, filtering air and then blowing it back into the cabin from above. **Exactly the air cleaning principle of the TAC V+ – virus filtered air to protect your employees and visitors!** With one difference: In a fully occupied A320, each guest has 0.51 m² of room space available – much less space and distance than recommended for office rooms, even though only 19.3 m³ of clean air per hour is generated for each passenger. In contrast, three TAC V+ in the example office (see below) generate 150 m³ of clean air per person per hour – almost a factor of 8 compared to the aircraft!

Worldwide unique filter decontamination

The special filter used in the TAC V+ not only reliably retains 99.995 % of all aerosol particles larger than 0.1 µm – the filter is also heated cyclically, which inactivates all viruses separated in the filter and thus "decontaminates" the filter 100 %. **This thermal self-regeneration function of the H14 special filter is unique in the world and only available from Trotec!**



Example call center: With an area of 10 x 10 m at a room height of 2.5 m, the office zone shown has an air volume of 250 m³, which 3 TAC V+ can circulate 19 times per hour (air capacity 4,800 m³/h), which corresponds to an air exchange rate (LW/h) of 19.

Technical data room air cleaner TAC V+

Air flow rate freely blowing	max. 2,300 m³/h
Air flow rate with HEPA H14	1,600[1] m³/h
Realizable Clean-Zone-Area	depending on the selected air exchange rate per hour (LW/h), see table on front
Air filter pre-filter	F7 (EN 779:2002), ePM10 85 % (ISO 16890)
HEPA air filter	Trotec HEPA-H14 Heat Resistant
Exemplary energy consumption	approx. 6 kWh / 12 h with 2 regeneration cycles daily and 12 h operating time
Sound level	54 dB(A) at 1,100 m³/h, distance 1 m
Power supply	220-240 V 50 / 60 Hz 2,950 W
L x W x H / weight	580 x 620 x 1,300 mm / 79 kg

Optionally also available painted in yellow, basalt grey or bronze.

What distinguishes the cabin of jet from an open plan office?

Consensus on problem analysis

More and more experts recognize that a viral infection via air is probably the most decisive route of infection. Current studies suggest that viruses may be emitted into the environment in the form of aerosol clouds, especially when speaking, and may remain in the air for hours.

The problem is in the air, and so is the solution

If viral aerosols float in the room air, there is an increased risk of infection. Viruses do not adhere to distance rules and also easily overcome physical barriers such as partition walls. If the room air can be kept free of viruses, the aerogenic risk of infection is reduced.

The coup of the aviation industry

With this air cleaning argument, the aviation industry recently managed to re-occupy the centre seat again.

Full staffing for full sales, after all, without sufficient space it would hardly be possible to work profitably – which any entrepreneur with workers in an open-plan office can sign immediately – and a free middle seat as well as further precautions would not be necessary at all, because the risk of infection on board is extremely low due to the special air conditioning filters (HEPA) and the air flushing with laminar air flow vertically from the cabin ceiling towards the floor, the air is practically as germ-free as in an operating theatre.

Grounding only for ground staff.

If there were similar solutions for office workplaces, nobody would understand that different rules should apply here. What is possible in the sky, has to be realizable on the ground!

The TAC V+ air cleaned as if in flight

And there is such a solution: With the TAC V+, Trotec has developed a high-frequency air cleaner that follows the same flow principle as that used by the aviation industry: Potentially contaminated air is sucked in close to the floor, filtered with HEPA and then fed back into the room from above in a virus-filtered manner. The TAC V+ is also equipped with a high performance HEPA filter of class H14, but it also has a function that is exclusive to Trotec and not available in any aircraft.

With Trotec's solution, suspended particles containing viruses are not just simply separated in the filter, as is the case with aircraft filters. The filter is also heated cyclically so that all the viruses separated in the filter are inactivated, which in turn "decontaminates" the filter 100 %. This thermal self-regeneration function of the H14 special filter is unique worldwide, only available from Trotec and not in any aircraft!

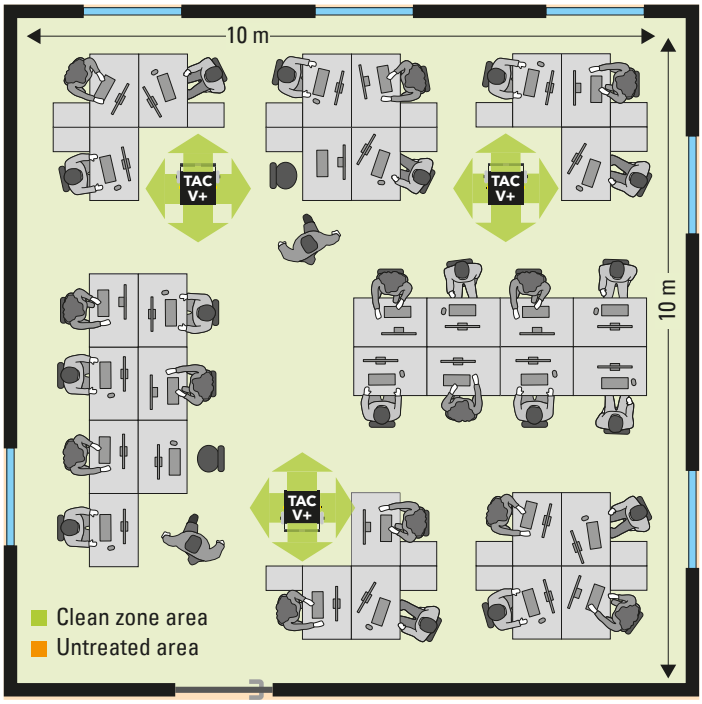
Same technique, equal rights!

The clean air performance of the TAC V+ in combined operation with several units easily exceeds the achievable fresh air supply rates in a wide-body jet by a factor of 8, as shown in the example diagrams below!

If, however, the airlines are again allowed to occupy every available seat – that is more than 2 people per square metre of cabin space - because they have air filtration technology that neutralises the aerogenic risk of infection through a certain type of air filtration, then screen work in an open-plan office should actually not be denied the opportunity to make the same room air filtration principle an integral part of the hygiene concept!

Saving money on office work, but aviation subsidies?

Contact your member of the Parliament, your district administrator, your mayor and demand a statement on this unequal treatment. You may actually have to go up in the air first to get a level playing field. With the same hygiene standards, the sky should not be the limit and different rules should apply to "ground personnel"! For air cleaning "at the base" there should therefore be subsidy concepts just as there should be for supporting the aviation industry, which is worth billions!



Example of occupancy in a call center: With an area of 10 x 10 m at a room height of 2.5 m, the office zone shown has an air volume of 250 m³, which 3 TAC V+ can circulate 19 times per hour (air capacity 4,800 m³/h), which corresponds to an air exchange rate (LW/h) of 19 (clean air volume of 150 m³ per person with 32 occupied workplaces) – almost a factor of 8 compared to the aircraft!

Example of occupancy in large-capacity jet: airlines are allowed to place the equivalent of 196 passengers on the same area – 0.51 m² room area per passenger – although only 19.3 m³ of clean air per hour are generated for each passenger – almost 8 times less than in the example call centre!

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