

# WHAT ARE THE ADVANTAGES OF SILENTCARE OVER OTHER AIR CLEANERS?

## Advantages



- ✓ Our SilentCare has a volume flow of 600 m<sup>3</sup> per hour or 900 m<sup>3</sup> per hour in the second stage, which guarantees the required air exchange of 5 to 6 times per hour for many rooms.
- ✓ The low noise level, which corresponds to a printer at most, is significantly quieter than the volume of a normal office.
- ✓ Many devices have an extreme draft, which is uncomfortable and can lead to illness. Due to our all-round flow of the air, we have little air movement, which is very pleasant. The relevant values of DIN ISO 7730 are adhered to.
- ✓ The size is quite compact for a device with this air capacity, can be moved easily in the room due to the 5 rollers or due to the low weight of approx. 35 kg can easily be transported to other floors. Commissioning is then easy, plug in the socket and switch on ("plug-and-play").
- ✓ To get to the second power level, the toggle switch simply to position 2.
- ✓ The filter service life is extremely long compared to the competition due to the large filter surface. With an operating time of 8.5 Hours a day, 7 days a week, is normal for 2 years, which corresponds to approx. 6000 operating hours. This results in low operating costs. Competitors state, for example, that the filter elements should be replaced at 750 hours.
- ✓ The electricity costs are also very important for the operation. In the 600 m<sup>3</sup> level, approx. Consumes 40 watts per hour, which corresponds to a weak 40 W light bulb. There are electricity costs of approx. 0.1 euros per 8 hours.
- ✓ Inexpensive filter units often use electret fibres as filter material. They have the disadvantage that their separation efficiency decreases with increasing load, as the electrical charge is shielded by the separated dirt. The SilentCare improves its separation efficiency with increasing load, as it does without electrical charges during separation and only works with the finest fibre structure of the filter medium.
- ✓ In the case of electrostatic precipitators, the separation also deteriorates over time, because here, too, the dirt on the separation plates is shielded. These filters can generate ozone, which is very harmful to health. This ozone must be eliminated in activated carbon filters. A necessary, regular replacement of these activated carbon filters costs additional.
- ✓ Filters that work with ultraviolet light (UV light) have the disadvantage that they must be very well encapsulated in order to prevent the harmful UV light from escaping. In the case of an effective radiation dose, it must be assumed that that ozone is also created. This ozone, in turn, must be rendered harmless.

### Let's look at air filters that cost a few hundred euros on the Internet or hardware stores

- ✓ Most devices are advertised with HEPA filters without specifying the actual separation efficiency according to a standard. One speaks of "very quiet" without specifying the actual volume in decibels. Often larger distances are also given. This makes the devices quiet on paper, but not in reality. The volume flows are often so low that in a normal room size, there is just one air exchange per hour. That is far too little.
- ✓ These devices usually have a very small air outlet and thus a strong air jet, which is not only very uncomfortable but also induces the volume flow to be throttled even more. This also lowers the virus reduction.
- ✓ The often-advertised activated carbon filter inserts are often very small in capacity, so that the effect is exhausted after a few hours. To put it simply: If a kilogram of good activated carbon costs 15 euros, a filter element that is 25 costs euros, there isn't much included.
- ✓ The electrical power consumption in relation to the air performance (volume flow) is rather poor for many devices. Example: 0.2 watts per cubic meter of air from an "inexpensive air cleaner" compared to 0.06 watts per m³ of air from SilentCare. This corresponds to approx. the factor 3 and means that the "inexpensive air cleaner" is three times as expensive to operate.



**The SilentCare has a price / performance optimum in the categories of technology, handling, volume, separation performance, service life, energy consumption and design.**

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