

Airforte BM[®] technology test report summary

Viruses

Comprehensive tests were run by the University of Helsinki at Human Microbiome Research Program, Department of Bacteriology and Immunology in September 2020. The tests were run using two known viruses, T4 and T7 phages. The test clearly demonstrated that Airforte Aero BM technology can efficiently inactivate viruses that are circulating in the air. “As T7 phage used as a model virus in this work is an exceptionally resistant virus, it is fairly safe to deduce that coronaviruses would be inactivated at least as efficiently as T7”.

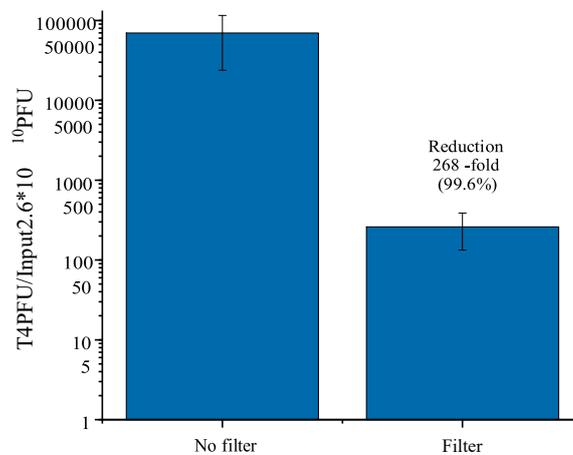


Figure 1. Inactivation of phage T4 in Airforte Aero BM air purifier using two different speed settings. T4 phage was flown through the air purifier that was either operated without filters and UV lights (No Filter) or equipped with UV lights and filter combination G (described in Figure 1 and Table 1). No filter setting was operated with speed 1 and filtered setting with speed 2 and speed 4. The bars represent the mean of three independent measurements and the error bars represent sd.

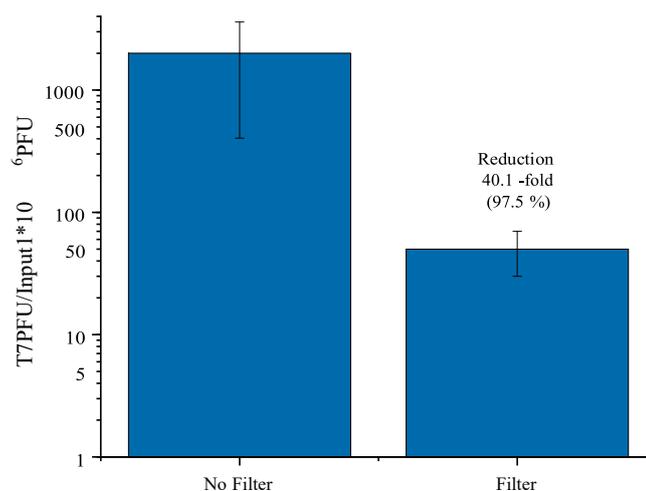


Figure 2. Inactivation of phage T7 in Airforte Aero BM air purifier. T7 phage was flown through the air purifier that was either operated without filters and UV lights (No Filter) or equipped with UV lights and filter combinations. The bars represent the mean of three independent measurements and the error bars represent standard deviation (sd).

Bacteria and mold

Airforte Aero BM technology has been tested more than once regarding its capability to remove bacteria and mold/ spore from the indoor air. The tests show that Aero BM removes very efficiently the microbes from the air. Ozone was also measured, and the device did not generate any ozone.

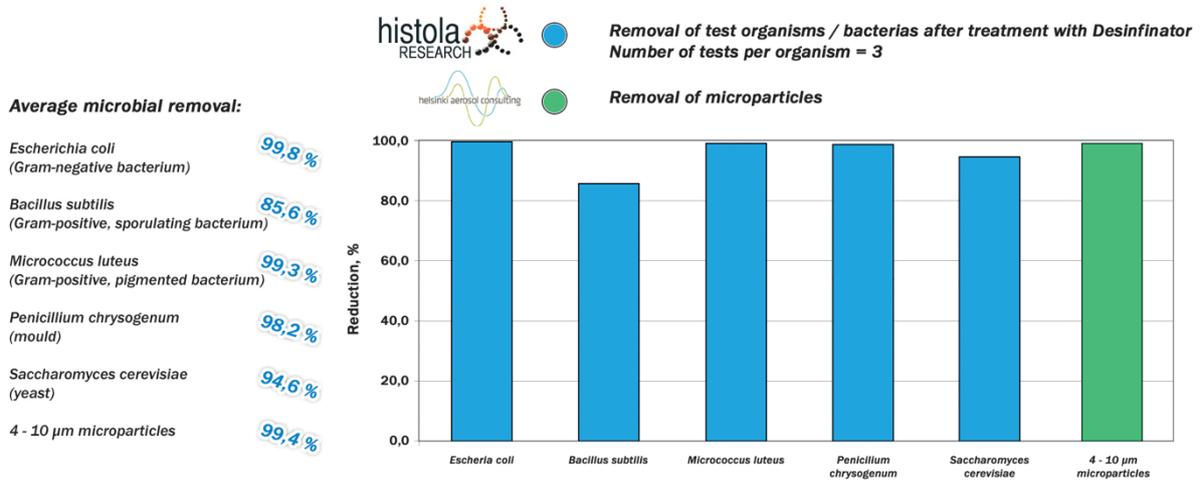


Figure 3. Removal of microbes in Airforte Aero BM purifier.

Gas removal

Airforte Aero BMG is a special version of the BM product, developed to remove harmful gases from the air. In a test run by VTT Finland 2019 the device removed practically all of the test gas from the air (formaldehyde). There are several options for gas filters depending of the environment/gas type.

“The device removes formaldehyde from the air stream completely at different speeds”

The was run with a CH₂O density of 2100 ppb in the air and the results were 0.14 ppb measured after the device.

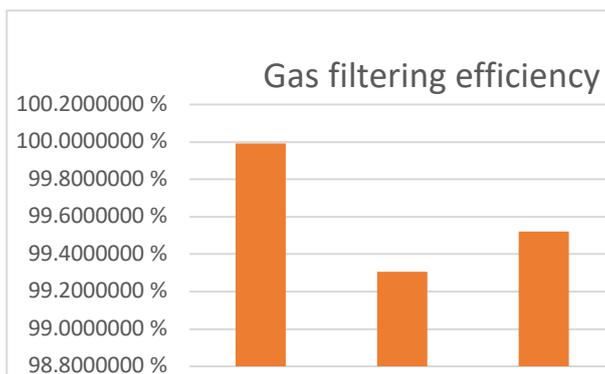


Figure 4. Gas (formaldehyde) filtering efficiency in Airforte Aero BMG purifier at different speeds.

No Ozone generation

Tests run by Finnish Institute of Occupational Health and VTT Finland showed that Airforte Aero BM[®] devices do not generate any ozone.

