

Abstract 4

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Topics HVAC impact on comfort and health of occupants and operators / Impatto dei sistemi di condizionamento sul comfort e la salute di occupanti e operatori

TEST PROCEDURES OF MOBILE AIR CLEANING DEVICES - FIRST EXPERIENCES

The pandemic spread of the SARS-CoV2 viruses in Europe is leading to the use of new ventilation concepts. One of these options is the usage of Mobile Air Cleaning Devices. These are used as an alternative to central HVAC-systems and have the task of reducing the load of pathogens in the room. However, there are still no consistent methods for evaluating the performances of such devices that take into account the effect on the pathogens, the benefit in the room and the influence on the room occupants.

In this paper, measurements and results of different devices in the range of 500 m³/h to 1500 m³/h are presented. Important attention is given to the presentation of the applied methods for the definition of the different characteristics. Specifically, the parameters of volumetric flow rate, electrical power consumption, sound power, filtering separation, effect on pathogens, room air flow, draught risk and effect in the room have been studied.