

# Test Report



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INSTITUTE**

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Init.: STKO

**Customer:** AERUS/EDIZON  
Fabrikvej 11B  
8260 Viby J

**Samples:** Air Purification System – AERUS PURE & CLEAN  
Air Purification System – BEYOND BY AERUS

**Period:** The testing has been carried out from 04 October 2020 to 06 October 2020

**Result:** Danish Technological Institute assess that neither of the tested Air Purification Systems give rise to ozone accumulation

**Storage:** According to the general terms and conditions of The Danish Technological Institute

**Place:** Danish Technological Institute, Aarhus, Air and Sensor Technology

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## Assignment

Cardiocare Scandinavia ApS wants to document that two air purifiers do not emit ozone. For each air purifier, the ozone concentration is continuously measured in the air around the air purifier for a period of 6 hours in an airtight test chamber of 20 m<sup>3</sup>.

Based on the measurements, it is assessed if the air purifiers give rise to ozone accumulation in the test chamber.

## Conclusion

Danish Technological Institute assess that neither of the tested Air Purification Systems give rise to ozone accumulation.

The background ozone concentration in the test chamber was measured to  $7 \pm 2$  ppb prior to the tests. During the test period with air purifier turned on (6 hours for each unit) there was not measured any increase in ozone concentration (see Figure 1 and Figure 2).

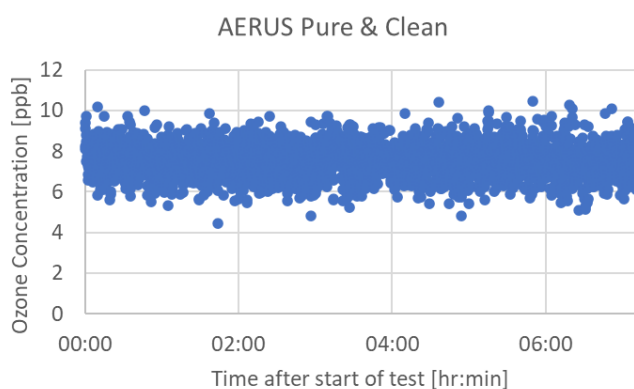


Figure 1: Ozone concentration measured in test chamber during test of AERUS PURE & CLEAN

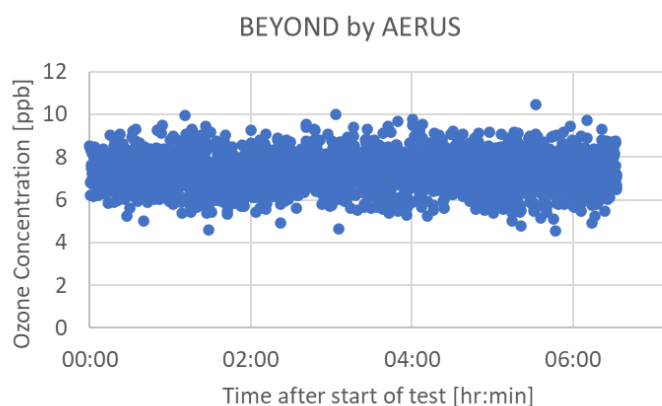
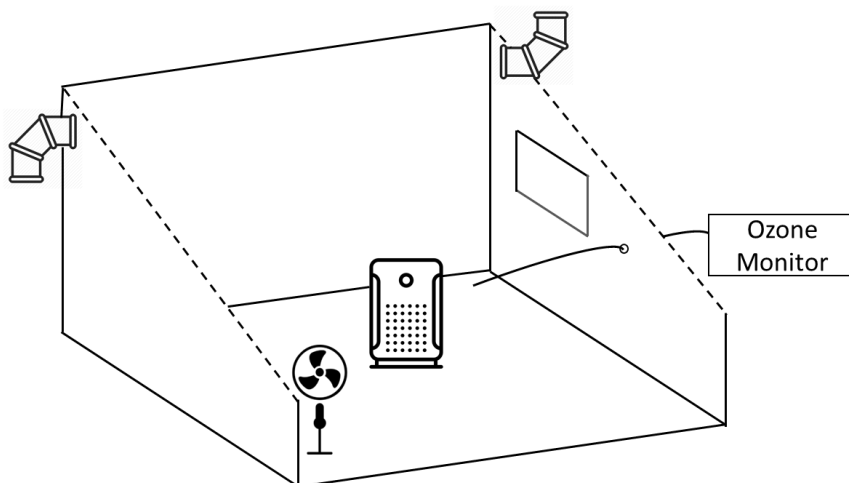


Figure 2. Ozone concentration measured in test chamber during test of BEYOND BY AERUS

## Equipment and Method

The ozone concentration was continuously measured with a Teledyne API Ozone Analyzer model 430. The instrument can measure ozone concentration in the range from 0 - 20 000 ppb (20 ppm) with a precision of 0.5 ppb and a lower detection limit of 2 ppb. The measurement was performed with time resolution of 10 seconds.

The tests were performed in a closed, non-ventilated 20 m<sup>3</sup> test chamber. The walls are covered with Teflon foil to minimize adsorption of particles and gases on the chamber walls. The test chamber is airtight and therefore suitable for testing air purifiers (see Figure 3).



*Figure 3: Schematic overview of test chamber*

The placement and configuration of each air purifier is shown in the table below. Each unit was operated on the highest level. A sample tube connected to the ozone monitor was placed in the vicinity of the airflow outlet of the air purifier.

<b>Test parameters:</b>	<b>"AURES PURE &amp; CLEAN" (Figure 4)</b>	<b>"BEYOND BY AERUS" (Figure 5)</b>
Placement	On top of stainless-steel trolley (height 70 cm)	On floor
Configuration	Fan Speed: Level 5 A-PUREx2 - ON "CELL" - ON "ION" - ON	Fan Speed: Level 4 ("MAX airflow")

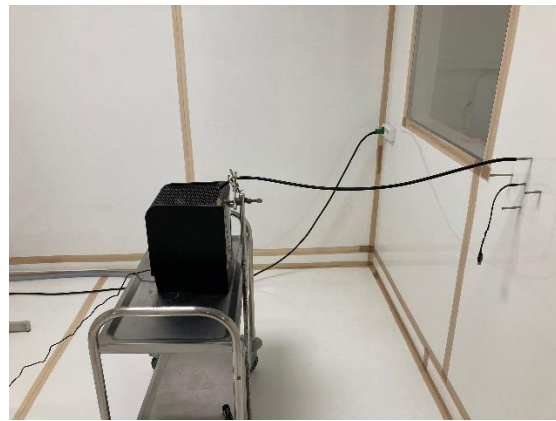


Figure 4: Images of "AERUS PURE & CLEAN" configuration and placement during test



Figure 5: Images of "BEYOND BY AERUS" configuration and placement during test