



SwisensAerosol Generator

The new way for easy aerosolisation



Detect what's in the air

SwisensAerosolGenerator

The new type of fungal spore aerosolization

The SwisensAerosolGenerator (SAG) is designed for the atomization of fungal spores and all sorts of biological materials which can be brought in the air with an air stream. The flexible design allows the use of petri dishes containing grown fungal cultures, as well as infested leaves or part of vegetables and fruits.

Special features of the SwisensAerosolGenerator

The SwisensAerosolGenerator is ideally suited for the SwisensPoleno Jupiter, but can also be used for other aerosolisation applications. It enables creating a clean sample flow of biological materials like fungal spores.

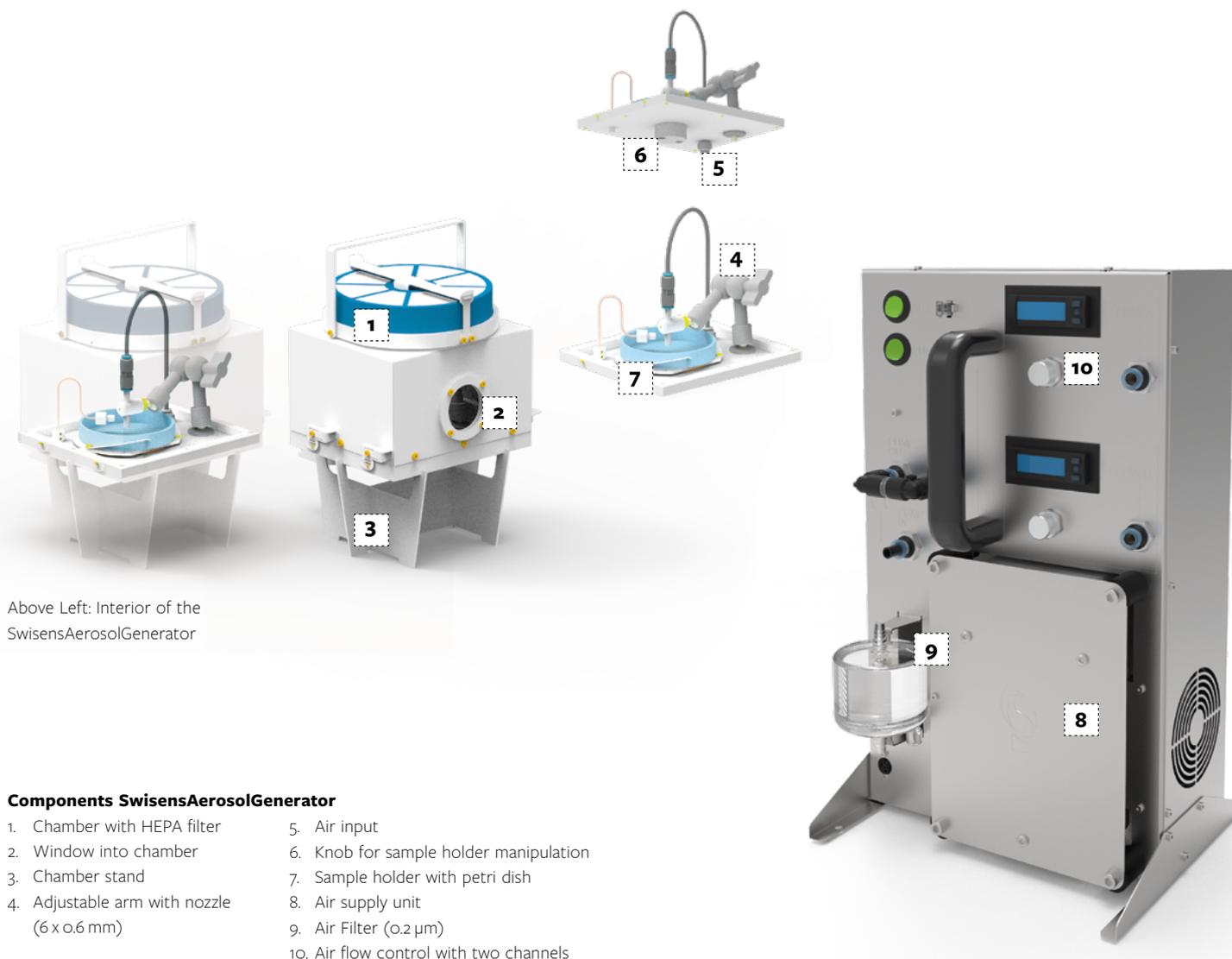
- Air supply unit with vacuum pump included
- Two separately controllable clean air flows
- Spare parts included
- Transport case included
- Good cleanability

Features of Swisens technology

Holographic images: Precise capture of airborne particles for accurate identification and analysis.

Artificial Intelligence: Fast, accurate identification of particles without human intervention.

Open source software: Full control over data, customization capabilities, and expertise of the open source community.



Above Left: Interior of the SwisensAerosolGenerator

Components SwisensAerosolGenerator

- | | |
|---|--|
| 1. Chamber with HEPA filter | 5. Air input |
| 2. Window into chamber | 6. Knob for sample holder manipulation |
| 3. Chamber stand | 7. Sample holder with petri dish |
| 4. Adjustable arm with nozzle (6 x 0.6 mm) | 8. Air supply unit |
| | 9. Air Filter (0.2 µm) |
| | 10. Air flow control with two channels |

SwisensAerosolGenerator

The SAG consists of an aerosol chamber, in which the samples are placed and the fungal spores are atomized. The filtered air for atomization is supplied by a separate air supply unit, containing a vacuum pump and valves for airflow control with flow meters for monitoring.

Samples are placed on the sample holder and the nozzle is adjusted to guide air onto the sample. Depending on the fungal spore species the air flow needs to be adjusted to be able to detach fungal spores.

- Fine air flow control
- Flexible air direction adjustment
- Easy sample position adjustment



Left: Air supply unit of SwisensAerosolGenerator for laboratory use.

Specifications

External Power Supply: IN: 85-264 VAC / OUT: 24 V; 9.2 A

Vacuum Pump Pressure: min. -759 mbar / max. +2.4 bar

Vacuum Pump Air Flow: max. 39.6 L/min

External AIR IN: max. 10 bar

Air Flow A: 0-10 L/min (Flow meter range)

Air Flow B: 0-50 L/min (Flow meter range)

Air Filter: Whatman Polycap 36 TF / PTFE-Membrane / 0.2 µm Pore size

Accessories power output: 24 VDC / 9.2 A

Weight: 6 kg

Particle atomization

The SAG is ideally suited for the SwisensPoleno with the chamber fitting on top of the inlet. The air supply unit is operated on 110-230 VAC. The air is filtered to supply clean air to the chamber. The nozzle is held by a flexible arm for easy adjustment. The sample holder inside the chamber can be moved from outside, with a magnetic knob. All parts in contact with fungal spores can be disassembled and cleaned.

More information

A more detailed description and tested fungal spores species can be found in this article: *SwisensAerosolGenerator for Fungal Spores*. <https://kb.swisens.ch/sag>

Link to Article



You have individual requirements?

Our team is looking forward to hearing from you.
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