

Safety by containment



**Skana[®] DECOSIS ...
microorganisms don't stand
a chance!**



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Our performance at your service

Skair® DECOSIS (the faster alternative to toxic formaldehyde)

The Skair® DECOSIS fumigation procedure eliminates biosafety risks for the maintenance of microbiological safety cabinets (e.g. cabinets as per EN 12469) and other biocontainments. The special process control ensures decontamination of all critical areas. This mobile system is connected directly to the safety cabinet in the lab and functions autonomously thanks to a control system and catalytic converter. The decomposition products of the biocide are unproblematic, and maintenance work can subsequently be safely carried out on the decontaminated cabinet.

USE

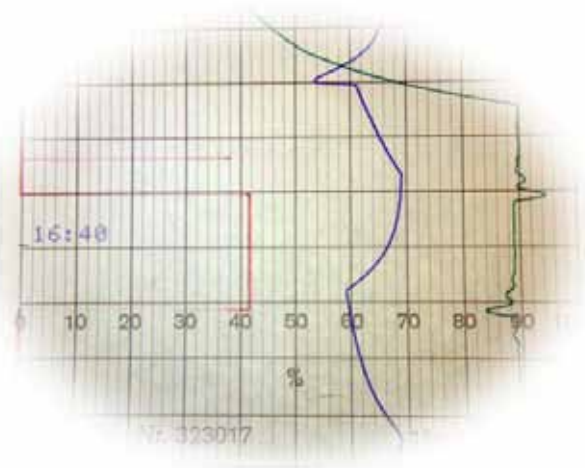
- To decontaminate microbiological safety cabinets in advance of maintenance work, when changing job or location, in preparation for disposal, or in the event of breakdowns or accidents
- To decontaminate biocontainments such as incubators, air locks and small isolators
- As the clean and faster alternative to formaldehyde fumigation

FUNCTIONALITY

The Skair® DECOSIS is a mobile unit used directly in the lab, and connected to the safety cabinet via two tubes and matching covers. The cabinet continues to run in reduced mode throughout the procedure. The trained maintenance technician enters the corresponding facility parameters at a control system display, together with the quantity of H_2O_2 defined on the basis of the SKAN DECOSIS validation. The process starts at the touch of a button, and runs completely automatically: the internal ventilation unit maintains slight negative pressure and feeds H_2O_2 vapour through the front cover into the cabinet, continuously circulating it inside the cabinet to reach all contaminated areas. The exhaust air through the cabinet's HEPA filter is then fed back into the Skair® DECOSIS via the second tube to be recirculated. The decontamination phase is followed by the flushing phase: any biocides in the exhaust air from the cabinet are removed inside the Skair® DECOSIS via a catalytic converter and a final HEPA filter. This air can then be released directly into the lab, without having to be extracted via the building exhaust air system. The low residual H_2O_2 concentrations enable TLVs to be maintained within the lab. Water and oxygen are formed as decomposition products. The residual concentration within the safety cabinet is registered via a sensor to determine when the process should be terminated, and a line recorder registers the relevant data and serves as verification that the process is complete.



Feed station



Line recorder registration

The complete decontamination cycle including H₂O₂ decomposition lasts approx. 3 – 5 hours, depending on the size and level of contamination of the cabinet. SKAN DECOSIS validation is based on a total kill of 10⁶ spores of *Bacillus stearothermophilus* as a bioindicator with the highest known resistance to H₂O₂. In addition, contamination by impurities is taken into account and a factor of safety is also included.

All microorganisms are covered: bacteria, viruses, fungi, mould, spores, etc. The procedure is designed for surface decontamination, and – as is the case with all gaseous processes – critical work surfaces must be cleaned thoroughly in advance.

Skanair® DECOSIS enables all typical sizes of safety cabinets to be decontaminated. The volumetric flow rate generated by the system is max. 300 m³/h, making it possible to use both two- and three-filter devices up to a width of 180 cm.

The modern, safe and clean alternative to formaldehyde fumigation:

- Inactivates all microorganisms
 - Considerably faster to use: 3 – 5 hours instead of a whole day & night
 - No residues or precipitations as in the case of formaldehyde
 - Unproblematic decomposition products: water and oxygen
 - Not carcinogenic or toxic like formaldehyde
 - No persistent pungent odours
 - High level of safety: neither explosive nor flammable
 - Runs with controlled minimal negative pressure, thereby avoiding leakage into the lab
 - Validated process with high kill rate and safety margin
 - The process can be terminated safely via pushbutton emergency flushing
 - Terminal HEPA filter
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- Skanair® DECOSIS is constructed as a mobile unit, and is designed for long-term service: With its integrated trolley, the unit can be operated by a single individual and loaded into a van for transport
 - One Skanair® DECOSIS for all device sizes and types of safety cabinet
 - The unit needs no additional exhaust air equipment, facilitating immediate use in the lab
 - The quantity of biocide is tailored to the size and characteristics of the cabinet and facilitates rational and non-damaging decontamination
 - Subsequent maintenance work on the cabinet can be carried out safely
 - Also suitable for other biocontainments



Roll lifting cart



Mobility, transport in a van

Technical data

External dimensions (excluding trolley):	930 (L) x 580 (W) x 780 (H) mm
Dimensions of trolley:	1260 (L) x 600 (W) x 400 (H) mm
External dimensions (including trolley):	1260 (L) x 600 (W) x 1100 (H) mm
System boxes for accessories:	3
– H2O2 BOX (insulated):	400 x 300 x 340
– BOX A (accessories):	600 x 400 x 340
– BOX B (cover):	600 x 400 x 340
Weight of DECOSIS:	approx. 100 kg
Weight of trolley:	approx. 70 kg
Total weight including boxes:	approx. 190 kg
Noise level:	approx. 60 dB(A) during decontamination approx. 78 dB(A) during flushing
Volumetric flow rate:	max. 300 m ³ /h
Electrical connection:	1 PNE 230 V / 50 Hz
Power consumption:	approx. 800 watts
Dosable H ₂ O ₂ volume:	50 – 220 ml
Process duration:	60 – 120 min. decontamination phase 120 – 180 min. flushing phase 3 – 5 hours in total
H ₂ O ₂ TLV:	0.5 ppm in installation room
Data registered:	Temperature of vaporizer unit, humidity, biocide dosage

Subject to change without notice



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