

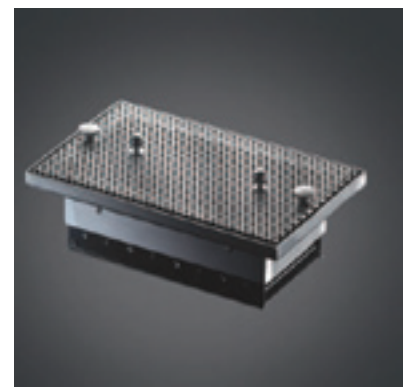


# VOKES AIR

Taking small steps together, always ahead, towards a better world

## Optiflu

Efficient fluff separation for hospital air exhaust systems



# Optiflu

Efficient fluff separation for hospital air exhaust systems

## APPLICATIONS



Clean Air



Power Generation



Clean Room



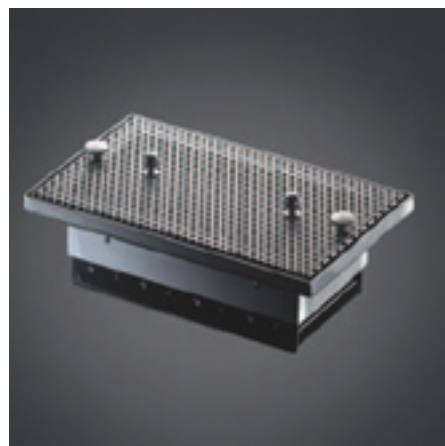
Industrial

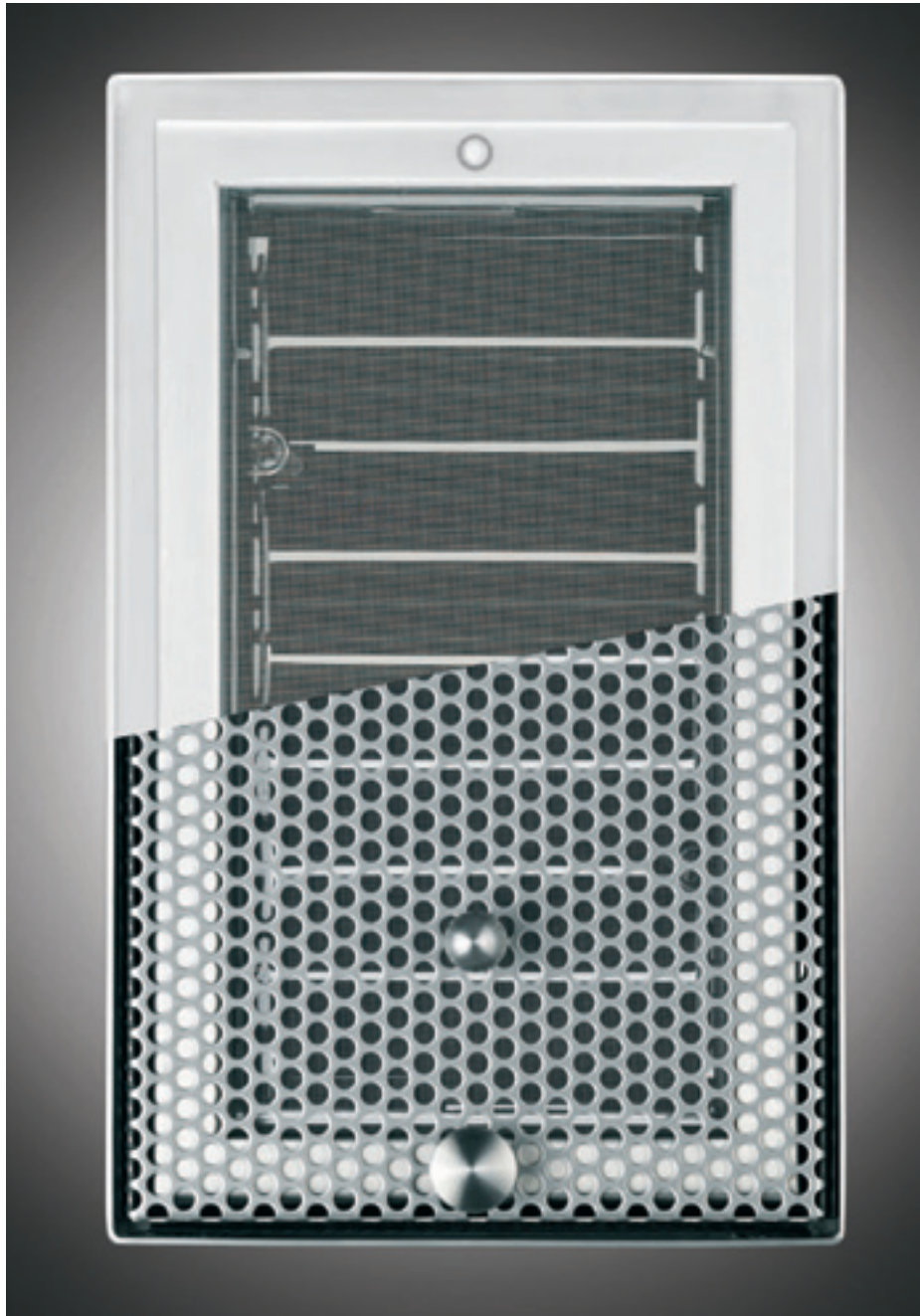
## KEY FACTS

- ▶ **Highest separator performance**  
Due to a special fine stainless steel fabric (1.4301) mesh width: 250 µm max.; wire thickness: 50 µm max. pursuant to ÖNORM H 6020
- ▶ **Maximum stability**  
Because of a stainless steel frame insert (1.4301) made from tight-welded moulded tube
- ▶ **Ultimate resilience**  
Enables steam sterilisation using temperatures of up to 134° C
- ▶ **Highest separator fabric protection**  
Due to perforated stainless steel sheet cover (1.4301)
- ▶ **Very simple connection with air duct system**  
Based on an exact manufactured holding frame made of stainless steel (1.4301)
- ▶ **Required air volume regulation**  
By a blade volume control damper

**According to ÖNORM H 6020, all exhaust air systems within rooms of high fluff occurrence (e.g. operating theatres and intensive care units) must be equipped with fluff separators.**

Fluff separators are used to restrain any fluff produced by scrubs, clothing or draping used in operating theatres and are designed to be installed in air ducts or suspended ceilings.





## Components

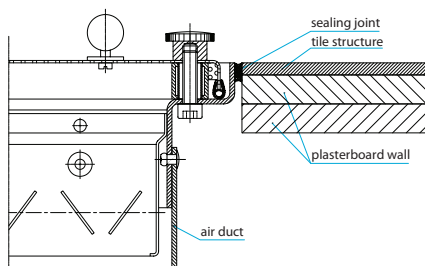
Fluff separator exhaust air systems consist of three components whereby each component including the fabric is manufactured from stainless steel 1.4301.

- 1) tight-welded holding frame, minimum sheet thickness 2 mm.
- 2) tight-welded insert frame made of moulded tube with finely meshed fabric, bonded parallel to the insert frame edge by means of a two-component adhesive.
- 3) perforated stainless steel sheet cover providing protection against damage as well as visual cover. The fluff separator design is disinfectant-proof and can be removed without tools.

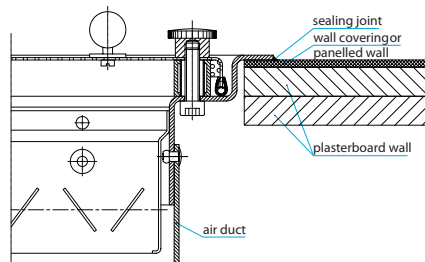
Most fluff separators are equipped with a bladed volume control damper to improve air volume balancing.

## Application Examples

**Optiflu** - without circumferential connecting angle e.g. for installation in tiled walls



**Optiflu** - with circumferential connecting angle e.g. when using wall coverings



All project-specific variations (e.g. integration into stainless steel exhaust air duct) can be manufactured according to customer specifications.



## Dimensioning

According to ÖNORM H 6020 exhaust air components in operating theatres must be installed symmetrically, i.e. in all four corners of a given room, in order to maintain an unidirectional airflow (TAV). The main exhaust air volume (75%) must be discharged close to the floor, while the remaining exhaust air (25%) is required to be removed close to the ceiling.

Essentially, fluff separators are custom-made and available in any possible size. If a volume control damper is used as an accessory, its dimensions also serve as reference measurements for the fluff separator dimensioning. Fluff separators must be dimensioned for in-flow velocities between 1.5 and 2.0 m/s to the duct connecting piece.

Standard dimensions and maximum air volume rates are shown in the table below.

Holding Frame Air Volume		Duct Connecting Piece Max.		Max. Air Volume at 2,0 m/s
W mm	H mm	Wd mm	Hd mm	m <sup>3</sup> /h
270	120	218	68	110
370	120	318	68	160
270	170	218	118	190
370	170	318	118	270
470	170	418	118	360
270	270	218	218	340
370	270	318	218	500
470	270	418	218	660
570	270	518	218	810
670	270	618	218	970
870	270	818	218	1280
370	370	318	318	730
470	370	418	318	960
570	370	518	318	1190
670	370	618	318	1420
870	370	818	318	1870
1070	370	1018	318	2330

## Cleaning

Fluff separators should be cleaned with a vacuum cleaner each time the operating theatre -or the intensive care unit, is cleaned. Additionally, insert frames may also be cleaned by means of steam sterilisation using temperatures of up to 134 °C.

## Other functions

In addition to restraining fluffs, fluff separators also minimise the fire load within air duct systems, prevent light being reflected from attached air ducts and increase the service life of ventilation and air-conditioning systems.

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In view of continuous research and development we reserve the right to modify specifications and dimensions without prior notice. For quoted standards, the issue valid at the print date of this leaflet is relevant.  
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