KOOLAIR

series KTF

Filtration Ceilings

ISO 9001
BUREAU VERITAS
Certification
Sistema de Gestión

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KTF Filtration Ceiling

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KTF Filtration Ceiling

Description

The filtration ceiling is an air diffusion component for high-efficiency one-way flow filtration, in compliance with all applicable hospital regulations.

The KTF filtering ceiling is suitable for risk 3 and 4 operating rooms as per NF S 90-351.

It meets ISO 5 class for ambient air quality to EN-ISO-14 644-1 and leakproof test to ISO 14644-3.

Main characteristics of the Koolair KTF filtration ceiling:

- Modular design for fast and easy installion. The filtration ceiling is an air diffusion component for high-efficiency one-way flow filtration, in compliance with all applicable hospital regulations. These modules are assembled on site by screws to form a plenum box where the HEPA air filters are installed.

- Maintenance of HEPA air filters using a simple, reliable locking system; downtime due to maintenance is minimized. Also includes pressure intake.

- Diffusion mode to generate single-direction and laminar flow over the entire installed surface, allowing stable, standardized diffusion through the ceiling with no interruptions. Noninductive diffusion.

Finish

Plenum made of galvanized steel sheet with white RAL 9010 epoxy paint.
It is also available in aluminum and stainless steel AISI-304.

Manufactured in various sizes.

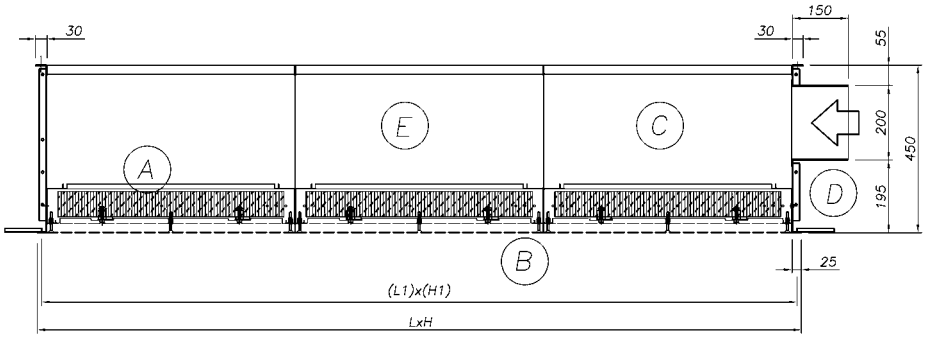
In order to ensure air tightness, the plenum is perfectly flat and water-resistant, which help improve perimeter sealing without leaks at the corners.

In addition, it is equipped with a pressure intake device.

The supply grille is made of perforated steel plate, with a perforated area of 50%.

High-efficiency H14 or U15 filters in standard sizes.

The filters have a low profile, around 68 mm high. These components have the advantage of low pressure drop (100 Pa to 200 Pa at the end).



KTF

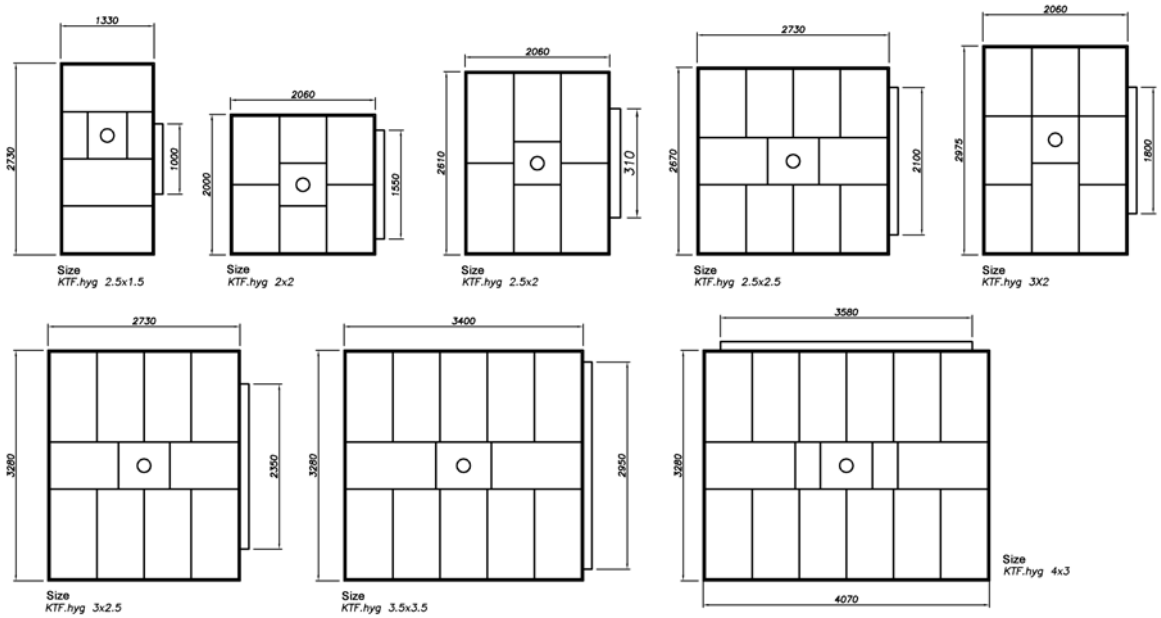
Symbols

A: Filter
B: Perforated grille
C: Plenum
D: Lateral air inlet
E: Operating lamp opening

Technical Data

The most important value to consider when selecting a filtration ceiling is the velocity at the filter outlet.
The values must remain between 0.20 and 0.40 m/s, with a peripheral velocity of 0.2 m/s and a central velocity of 0.4 m/s, in order to reduce turbulence caused by the operating light area and noticeably cancel out outside air induction in the surgical area of the patient.
More than 0.5 m/s is turbulent flow.
The protection size is determined by performing a risk analysis.

Size	Velocity at filter outlet (m/s)			Supply air flow (m^3/h)
	0.2	0.3	0.4	
2.5 x 1.5	1987	2754	3672	
2 x 2	2385	3305	4406	
2.5 x 2	3146	4361	5814	
3 x 2	3577	4957	6610	
2.5 x 2.5	4140	5738	7650	
3 x 2.5	5117	7092	9455	
3.5 x 3	6677	9253	12338	
4 x 3	7949	11016	14688	



SIZE KTF	OPENING L1	OPENING H1	TOTAL SIZE L x H x A	OUTLET L x H	No. PARTS	TOTAL WEIGHT (WITH FILTERS)	FILTERS
2.5 x 1.5	2680	1280	2730 x 1330 x 450	1000 x 200	1	212	(12.6)*3+(3.6)*2
2 x 2	2010	1950	2060 x 2000 x 450	1550 x 200	2	212	(9.6)*4+(6.6)*2
2.5 x 2	2560	2010	2610 x 2060 x 450	1550 x 200	2	257	(9.6)*2+(12.6)*4
3 x 2	2925	2010	2975 x 2060 x 450	1800 x 200	2	277	(9.6)*7+(12.6)*1
2.5 x 2.5	2680	2620	2730 x 2670 x 450	2100 x 200	2	347	(9.6)*10
3 x 2.5	3230	2680	3280 x 2730 x 450	2350 x 200	4	410	(9.6)*2+(12.6)*8
3.5 x 3	3350	3230	3400 x 3280 x 450	2950 x 200	4	478	(12.6)*12
4 x 3	4020	3230	4070 x 3280 x 450	3580 x 200	4	561	(12.6)*14+(3.6)*2

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