Due to proven system of double tight seat

Optimal safety

Filter tight seat

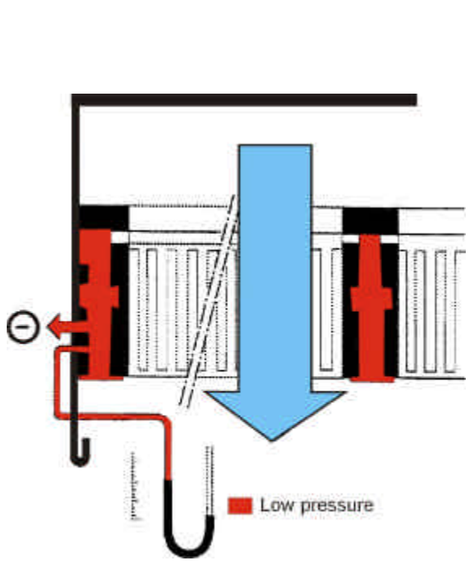
ADMECO mounts the HEPA filters since 1968 with supply air ceiling FFA according to the proven system of double tight seat.

Thus, the hollow space between the filter pressure frame and the down side of the filter frame is kept in a low pressure condition (constant protection pressure). The low pressure between these gasket levels is achieved by the connection of the hollow space to the waste air duct.

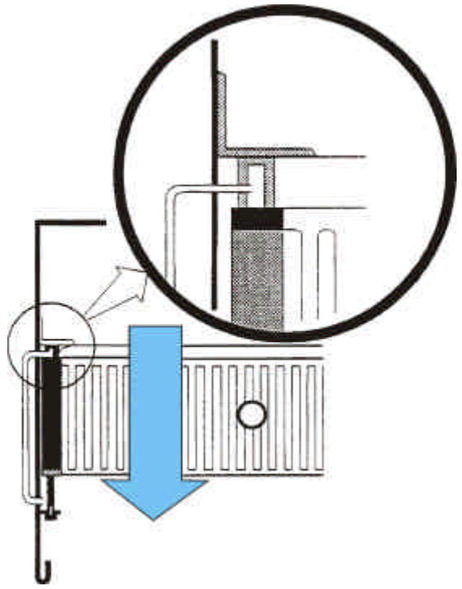
This system of tight seat guarantees highest security and does constantly avoid leakage between pressure frame and filter gaskets, between filter gaskets and filter frame and the filter frame itself. The test groove system controls the leakage potential between filter gasket and pressure frame only during the testing period (instantaneous shot).

Please do compare the systems!

System of double tight seat



Test groove system



Our comprehensive know-how of operating theatres consequently adapts the users` requirements and is based on intensive and continuous contacts to surgeons, anesthesiologists and nursing staff.

Medizintechnik
Medical engineering

ADMECO AG
Turbistrasse 17
CH-6281 Hochdorf
Switzerland

Telefon +41 41 914 70 30
Telefax +41 41 910 61 19
E-Mail info@admeco.ch
www.admeco.ch

ADMECO-Air air ceiling type FFA

The optimal solution for operating theatre supply

System ADMECO-Air

Air-conditioning and ventilation in hospitals belong more than ever to the most ambitious fields of application of modern room air technology.

ADMECO offers a wide range of different supply air systems to achieve an optimal air flow in the operating theatre which fully correspond to all points of DIN 1946, part 4, and are checked according to DIN 4799.

The marks of surface filter outlet type FFA are maximal operating security, low germ concentrations at the operating table (applies also to instrument tables when corresponding sizes are achieved) and minimal operational costs.

Special advantages

- The HEPA filters are placed over the total suction surface (filter resistance is approx. 65 Pa, total resistance of type FFA reaches 105 Pa).
- A minimal blind surface of the OT lamp port optimizes the air down flow.
- Due to installation of filters with double tight seat, leakage is completely eliminated.
- Ventilation may be connected from all possible sides.
- Distributor may be chosen as single-layer textile version, alternatively finest perforated sheet, lacquered or in fine steel finish.
- Extreme low installation height is possible (minimum 220 mm).
- Large selection of different blow-off sizes available.
- Long service life of HEPA filters when load is reduced to 60% of nominal rate.
- Single-layer textile distributor (easy to clean, with fixed links in best flow and robust frame structure achieved by a high tension of textile).
- Screwless fixation of complete distributor.

OT surface filter outlet with HEPA filters covering the complete surface

Operationssaal im DRK-Krankenhaus in Neuwied, Deutschland, eingerichtet mit ADMECO-Air Zuluftdecke Typ FFA mit Luftleitschürze aus Verbundsicherheitsglas

Construction

OT-Supply Air Ceilings as to type FFA are significantly marked by their final-horizontally installed HEPA filters placed over the complete surface and arranged directly in front of the textile or finest perforated sheet steel distributors.

The homogenous air distribution achieved by the HEPA filter surface allows the use of single-layer textile or finest perforated sheet steel distributors as a secondary air distribution level.

The resistance of these surface filter outlets is significantly lower than those of usual textile outlets and has an average down flow velocity of 0.21 m/s at approx. 105 Pa.

The horizontal arrangement of filters allows exact leakage tests according to VDI 2083. Surface filter outlets are of extreme flat construction and offer great flexibility for the arrangement of duct connections (from the top or any available side).

Surface filter outlets are made of highly stable, junction-stiff, extruded exterior frame profiles of anodized aluminum with a height of 150 mm. Movable suspension angles allow fixation of this robust structure to any ceiling.

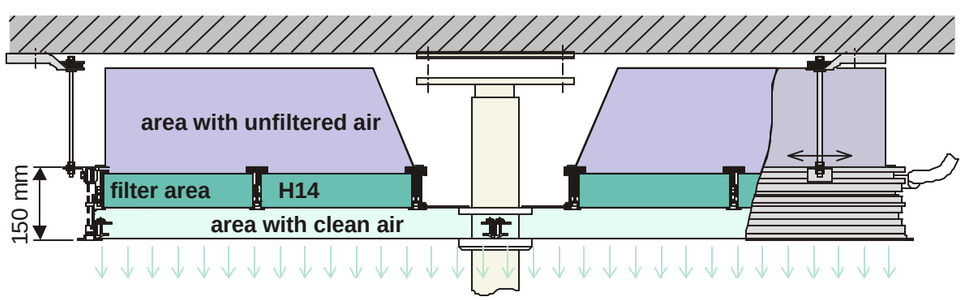
The standard installation height is 400 mm. If necessary, the installation height may be reduced to 220 mm.

The air outlet element may be of single-layer textile or finest perforated steel sheet.

If required, the surface filter outlets may be equipped with lamella aprons to produce an even more optimal air flow. Lamella aprons have especially been developed to allow the unrestricted placement of ceiling supply units.

Operationssaal im Ospedale in Legnano mit OP-Feldbeleuchtung

The stable exterior frame profile is equipped with swiveling supporting angles for an even and screw less fixation of the air distributors. These swiveling angle profiles are also supplied with exterior rotation to achieve even connection to the intermediate ceiling.



Textile or finest perforated sheet distributor

The choice

Standard sizes of surface filter outlet type FFA

Denomination	Dimensions mm Width x length	Installation height mm minimum 220 mm)	Supply air volume m^3/h at v=0.21 m/s	Pressure loss Pa at v=0.21 m/s (filter and distributor)
FFA 12/24	1303 x 2385	400	2200	105
FFA 14/24	1455 x 2385	400	2400	105
FFA 16/24	1607 x 2385	400	2700	105
FFA 18/24	1759 x 2385	400	3000	105
FFA 20/24	1929 x 2385	400	3300	105
FFA 22/24	2233 x 2385	400	3800	105
FFA 24/24	2385 x 2385	400	4100	105
FFA 26/26	2537 x 2537	400	4600	105
FFA 28/28	2841 x 2841	400	5800	105
FFA 30/30	3029 x 3029	400	6600	105
FFA 32/32	3181 x 3181	400	7300	105
FFA 35/35	3485 x 3485	400	8800	105
FFA 40/40	3941 x 3941	400	11400	105

Possible alternatives of surface filter outlet type FFA

Denomination FFA	12	14	16	18	20	21	22	24	26	27	28	30	32	35	40
Dimensions (mm) with corresponding supply air volume (m^3/h) at v=0.21 m/s															
Length / Width	1303	1455	1607	1759	1929	2081	2233	2385	2537	2689	2841	3029	3181	3485	3941
12 / 1303	1200	1300	1400	1600	1700	1900	2000	2200	-	-	-	-	-	-	-
14 / 1455	-	1500	1600	1800	2000	2100	2300	2400	2600	-	-	-	-	-	-
16 / 1607	-	-	1800	2000	2200	2300	2500	2700	2900	3100	-	-	-	-	-
18 / 1759	-	-	-	2200	2400	2600	2800	3000	3200	3400	3600	-	-	-	-
20 / 1929	-	-	-	-	2600	2800	3100	3300	3500	3700	3900	4200	-	-	-
21 / 2081	-	-	-	-	-	3100	3300	3500	3800	4000	4200	4500	4700	-	-
22 / 2233	-	-	-	-	-	-	3600	3800	4000	4300	4500	4900	5100	5600	-
24 / 2385	-	-	-	-	-	-	-	4100	4300	4600	4900	5200	5500	6000	6800
26 / 2537	-	-	-	-	-	-	-	-	4600	4900	5200	5500	5800	6400	7200
27 / 2689	-	-	-	-	-	-	-	-	-	5200	5500	5900	6200	6800	7700
28 / 2841	-	-	-	-	-	-	-	-	-	-	5800	6200	6500	7200	8100
30 / 3029	-	-	-	-	-	-	-	-	-	-	-	6600	7000	7700	8700
32 / 3181	-	-	-	-	-	-	-	-	-	-	-	-	7300	8100	9100
35 / 3485	-	-	-	-	-	-	-	-	-	-	-	-	-	8800	####
40 / 3941	-	-	-	-	-	-	-	-	-	-	-	-	-	-	####

*) Auf Wunsch kann der Gewebeverteiler auch doppelt bespannt ausgeführt werden.