



## LLB - KK

## DELTA series absolute filters for duct flows

Product	LLB	KK	
MPPS efficiency *	99,95 %	99,95 %	
CEN EN 1822 classification	H 13	H 13	
Suggested final pressure drop	600 Pa	600 Pa	
Maximum pressure drop	1000 Pa	1000 Pa	
Maximum operating temperature	90 °C	90 °C	
Maximum relative humidity	90 %	100 %	

<sup>\*</sup> Average efficiency. Punctual efficiency has an admitted penetration rate 5 times higher.

LLB -KK Delta absolute filters are deep pleated and they typically treat high air flow rates: 50% more compared to other models of the same size, and they can operate with air face speeds of 2.25 m/s. This reduces the size and the cost of ducts and the spaces occupied. Furthermore, compared to normal filters, due to the reduced pressure drop, their operating life is longer and the treatment unit fan motor energy saving level is higher. The filters also offer top quality construction, limited pressure drop, high dust holding capacities, strong mechanical resistance and are long-lasting. These filters are made of two materials different from the one used for the frame:

MDF wood (LLB) and galvanized steel (KK). Both have a special single piece gasket. They come in two different depths: 149 and 292 mm which allow face air speeds of 0.75 and 1.5 m/s respectively. All the filters are tested individually and labeled to assure the compliance with the measured features.

**Applications** LLB and KK filters can be used in various applications:

- final stage of air treatment units for rooms with cleanness class M4 and M5 (FS 290E)
- protection stage for very high efficiency filters (ULPA)

- in Canister systems to assure the required emission levels of exhausted air
- in line in Modulo systems to improve the efficiency of filtration systems
- in DIF.K/DIF.S terminal hoods in controlled contamination rooms.

Installation No matter what is the installation position, LLB and KK filters always allow for the use of the entire filtration surface. We suggest installing the proper high-efficiency pre-filters to increase their operating life. On request we also supply frames and housings to improve and simplify the installation of the filters. Models LLB can be burned completely.

Type	Type Sizes (mm) LLB					Nominal air flow rate Q.			Filtering		Initial	
LLB						LLB	KK	LLB	KK	surfa	ce m²	pressure drop
KK	Α		В		С	m <sup>c</sup>	³/h	m³/s	x10 <sup>-3*</sup>	LLB	KK	Pa
31	305	Χ	305	Х	292	700	750	195	208	6,9	7,2	280
53	457	Х	457	Х	292	1600	1700	444	472	15,3	16	280
52	305	Х	610	Х	292	1400	1500	390	416	14	15	280
5	610	Х	610	Х	292	2800	3000	780	832	27,5	29	280
6	762	x	610	Х	292	3500	3750	972	1042	34.5	36	280

<sup>\*1</sup>  $m^3/s \times 10^{-3} = 1 l/s$ 

## A

