

## EQUIPMENT

# LF

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## Light filter

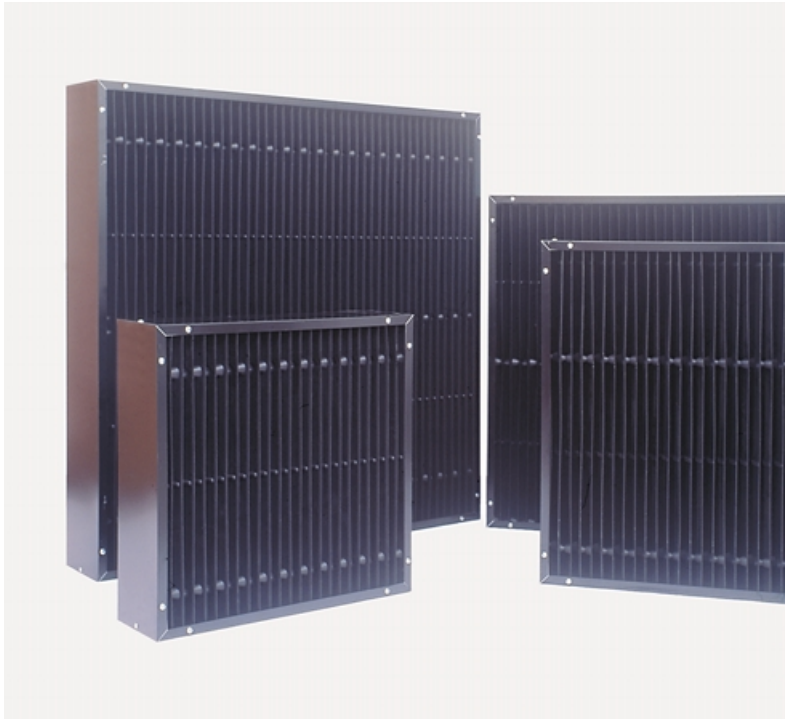


Photo shows LF light filters of different sizes.

- Housing frame made of strong pre-coated and galvanised sheet-steel
- Vanes made of high resistance polypropylene with UV protection
- Simple and easy installation
- Special clips supplied for easy coupling with Euroemme® fan housing. Only one person is needed to mount or to remove the light filter
- Special design of vertical plastic vane media with reduced pressure drop
- Air passing through the vertical vanes ensures a self-cleaning feature
- A unique light reduction performance coupled with low pressure drop. Light reduction, from exterior lux values of 7,000 lux, to interior values of 0.04 lux, with a corresponding pressure drop of 2.5 Pa at an air velocity of 1.5 m/s
- Every light filter package is individually checked for quality

A light filter is the ideal equipment required to reduce the light ingress through air stream passages. A typical example is the poultry industry. In order to obtain optimal breeder-bird performance in pullet houses, both light intensity and the number of light hours each day must be precisely controlled.

By controlling lighting it is possible for breeder birds to reach sexual maturity at the optimal time and therefore to stimulate the beginning of egg-production.

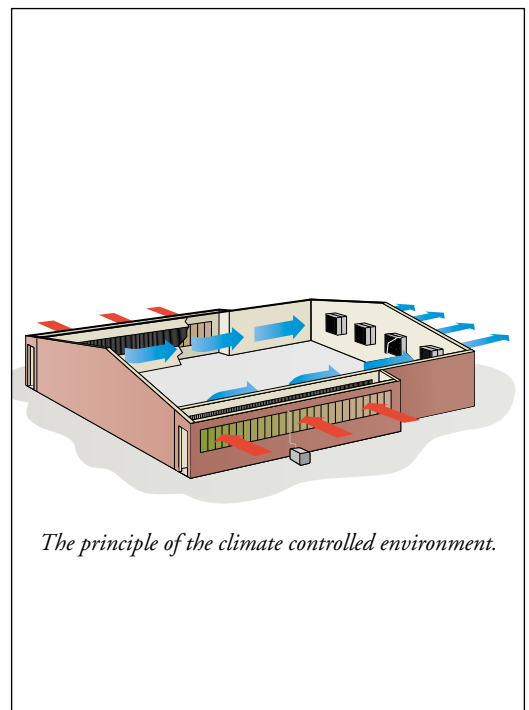
LF light filter is constructed of high grade polypropylene resistant to wear and tear, ultra violet rays from the sun, as well as the strong high-pressure washers used in farm cleaning techniques. The square frame housing the light filter vanes or media, is made of a strong epoxy pre-coated and galvanised sheet-steel.

Special designed clips provided with each kit, allow the mounting of a light filter directly onto a Euroemme® fan, on the suction side of the fan, as a perfect match in air-flow, efficiency and light lux reduction.

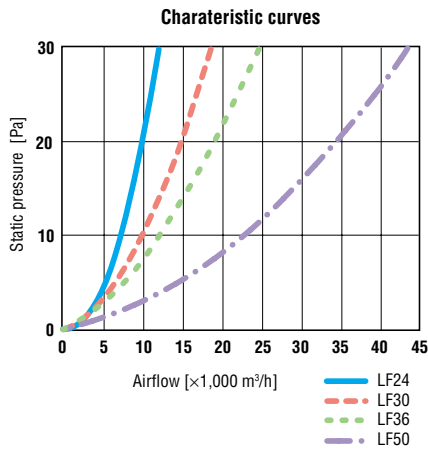
To improve aerodynamic efficiency and reduce pressure losses the light filter design has been developed in Munters' R&D lab. The test chamber has been built according to ANSI/AMCA 210-85 Figure 15 specifications. Construction details and airtightness have been verified by personnel of the BESS Lab at the Agricultural Engineering Dept, University of Illinois – USA.

### Plastic vanes and housing

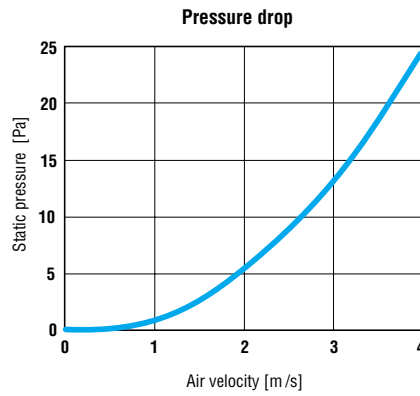
The vertical plastic vanes are designed for laminar air-flow in order to avoid any turbulence resulting in higher than necessary pressure-drop while air passes through them. When installed correctly in the vertical configuration, the vanes assure long lasting operation without dust build up allowing the pressure-drop to remain constant. Light filters are delivered in knock down kit form in order to reduce transportation cost and possible damages during transport, and do not require the necessary use of glues or chemicals in assembling the filters. The vanes are equipped with self-locking clips that are utilized by simply pushing two vanes together. A complete light filter can be mounted in less than 20 minutes.



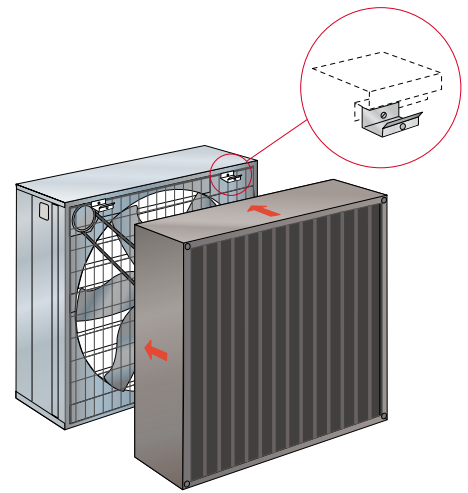
The principle of the climate controlled environment.



Curves refer to test performed fitted on exhaust fans.



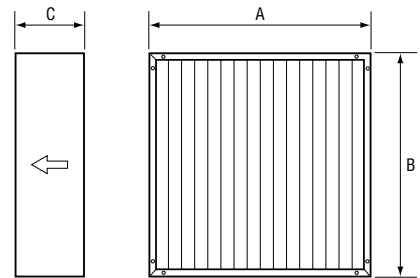
Curve refers to test performed when installed as cooling pad inlet light traps.



## Technical specifications

LF code (size)		24	30	36	50
Weight	[kg]	10.2	15.5	18.9	27.3
Inlet opening	[m <sup>2</sup> ]	0.48	0.80	1.10	1.76
Width	A [mm]	750	950	1,100	1,380
Height	B [mm]	750	950	1,100	1,380
Depth	C [mm]	240	240	240	240
Airflow average reduction		8-10%			
Luminosity reduction from outside to inside		From 7,000 to 0.04 lux			
Vane material		Black polypropylene, UV stable			
Frame material		Black precoated galvanised steel			

N.B. Airflow data are measured at standard condition (20 °C, 1013 hPa).



To keep the total static pressure within desired limits, the area for inlet light filters must be increased over the area of light filters used on the exhaust fans by approximately 150%.

LF light filter is developed and produced by Munters euroemme S.p.A., Italy.

## Order information

LF-X e.g., LF50

Code for the type of filter according to the above table.



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