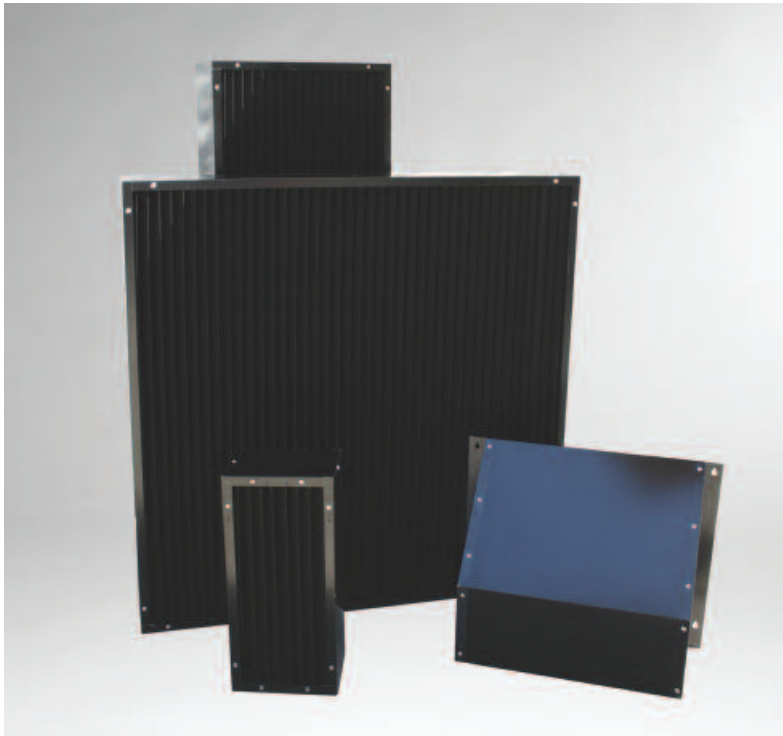


LFd

- High light reduction factor
- Low resistance to airflow
- Suitable for mounting onto fans
- Suitable for mounting onto air inlets
- Suitable for mounting onto pad openings
- Easily washable
- Compact transport dimensions
- Quick and easy assembly

LFd

Light filter

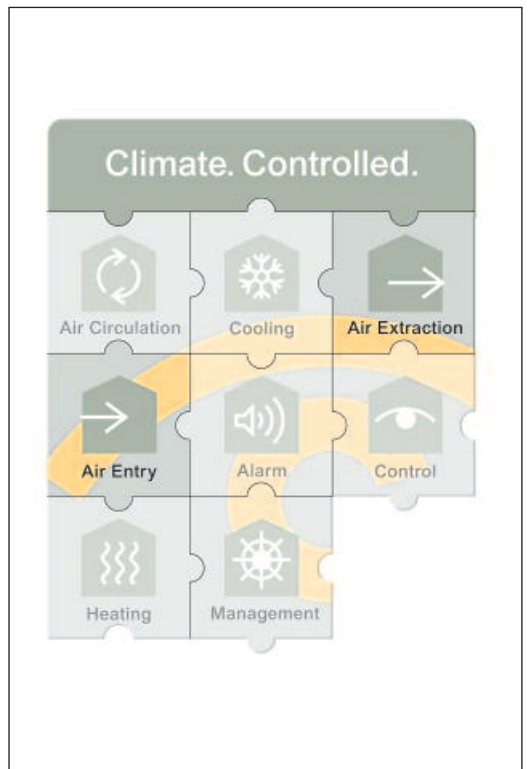


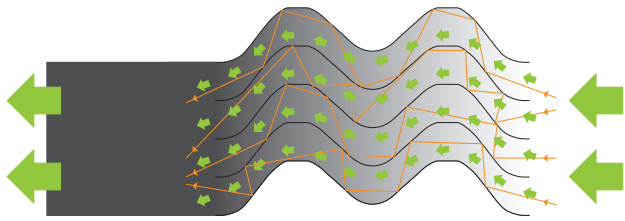
Light control plays an important role in modern poultry farming. Having adequate light control enables a grower to reap benefits by achieving excellent production goals. This is especially true for rearing farms.

The first step in gaining light control inside a poultry house is to have a light tight structure. A very practical problem faced with making a poultry house light tight is the necessity to have ventilation openings in the structure. These allow for fresh air to enter the structure as well as for the extraction of stale air and, unfortunately, for daylight to penetrate the structure through both the air inlet and exhaust openings. Light filters can be used to solve this problem, allowing air movement through but absorbing the light.

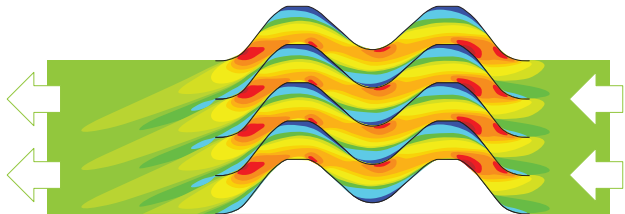
In a light filter curved vanes are used to reflect light back and forth between the two sides of the vanes. Each reflection absorbs some of the light, thereby decreasing its intensity. The curvature of these vanes should be such that it gives a balanced combination of creating many light reflections and yet not disturb the air flow passage through the vanes excessively. Experienced design engineers within Munters used state of the art Computational Fluid Dynamics (CFD) software to obtain just such a balanced design.

The LFd can be applied to both air inlet and exhaust openings to create dark-out conditions inside a poultry house while there is bright sunshine outside. On such a day light levels outside can be as high as 160,000 lux. After passing through the LFd the light level can be reduced to 0.12 lux, creating total darkness.



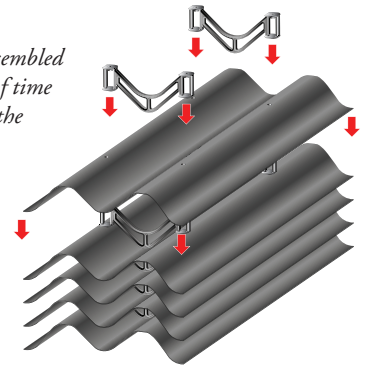


Curved vanes create many reflections to absorb light while creating a smooth passage for air flow.



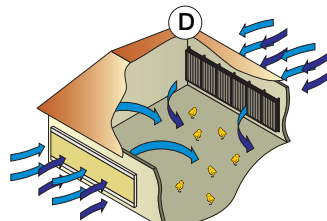
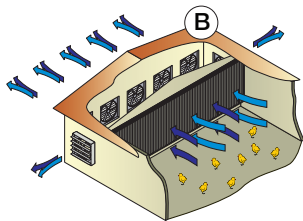
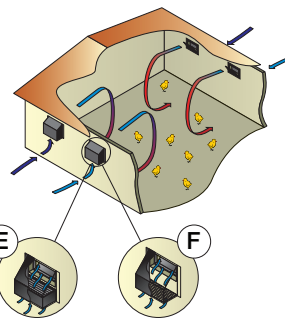
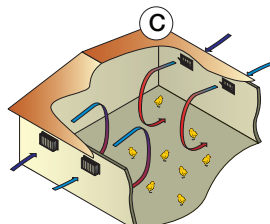
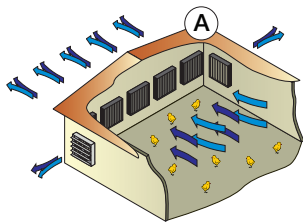
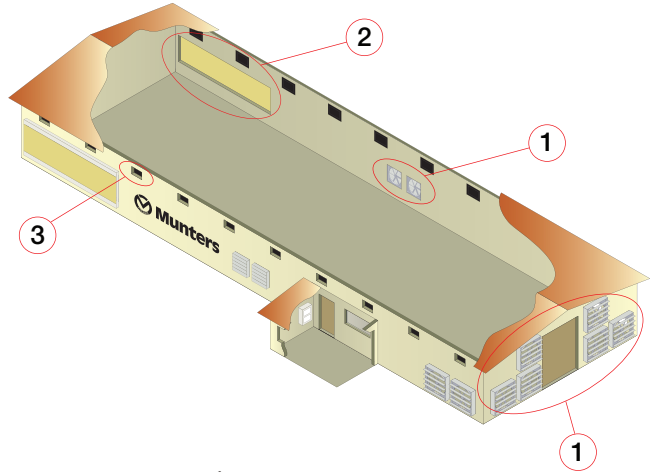
Air speed profiles used to optimise the curvature of the vanes with Computational Fluid Dynamics (CFD).

The LFD is easily and quickly assembled with the use of a unique design of time saving distance pieces that keeps the vanes firmly in place.



Numerous installation possibilities

- 1 – Exhaust fans.
- 2 – Pad openings.
- 3 – Air inlets.



Applications

- A – LFD cassettes mounted onto exhaust fans.
- B – A continuous wall constructed from profiled vanes and spacers.
- C – LFD cassettes mounted onto air inlet openings.
- D – LFD cassettes mounted onto pad opening.
- E – LFD cassettes mounted into air inlet canopy.
- F – Air inlet canopy for dimming light; reducing the effect of wind gusts through air inlets; preventing rain from entering the building; and, a mesh preventing bird entry.



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