Healthy indoor climate by intelligent windows

Controlled natural ventilation – Louvre window

EuroLam

Good Indoor air quality promotes an effective team!

Shutterstock / Rawpixel

EuroLam

The quality of indoor air has a decisive influence on performance, concentration ability and our health. Why fresh air is fuel for good ideas.

According to DIN EN 13779, depending on the carbon dioxide concentration in a room, the air quality levels are divided to: 800 ppm: good quality / 800 – 1000 ppm: medium quality / 1000 – 1400 ppm: moderate quality / >1400 ppm: low quality. The result of declining air quality is germs and viruses rising: **Poor air quality makes you tired and sick!**

CO_2 rate more than 1400 ppm affects the performance & decrease the concentration

Hygienic assessment of indoor air quality – CO_2 concentrations in the air

< 800 ppm	☺	hygienically safe / good indoor air
800 – 1000 ppm	😐	medium indoor air quality
1000 – 1400 ppm	😐	hygienically striking
> 1400 ppm	☹	hygienically unacceptable

Following recommendations of the Federal Environment Agency[1] CO_2 concentrations above 2000 ppm require to take organizational, ventilation or structural measures. Also the results of a Danish study show a direct effect of air quality on the performance of students. Thus a doubling of the outside air volume flow leads to a significant performance improvement of 8–14%.

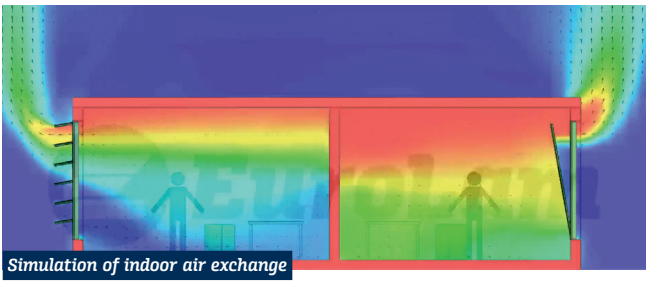
1 www.umweltbundesamt.de / Health assessment of carbon dioxide in indoor air (2008)

The operation of intelligent ventilation systems

CO_2-analyzer with Radio control

Indoor Air Quality

EuroLam **louvre windows for automatic regulation of CO_2 concentration in the ambient air**



Simulation of indoor air exchange

Optimal air exchange is ensured by ***EuroLam*** Louvre windows – in comparison with bottom hung windows (right half) which has a poor indoor air exchange – ***EuroLam*** Louvre windows are much more effective, faster and the heat loss remains comparatively in a low level.

EuroLam

Intelligent window for smart climate

The advantages of controlled natural ventilation are obvious: low investment and maintenance costs are resulting in a low heat loss and an excellent, healthy indoor climate.

By using the outdoor air, the indoor climate improved sustainably. In addition, the energy costs are reduced and the environment is protected. Thermal effects can be used for the supply with fresh air, which is not possible with conventional electric fan ventilation systems, aside from their intensive need of energy and maintenance.

Healthy room climate ensures good working atmosphere.

Advantages at a glance

- Excellent ventilation
- Controlled regulation of the healthy room climate
- Precise regulation by electric or pneumatic actuators
- Moisture and mold prevention
- Low installation and maintenance costs
- Durable construction
- Outstanding energy efficiency / environmentally-friendly operation
- Optimal use of space
- Glass views with an attractive appearance
- High safety engagement and burglary protection
- NSHEV (smoke and heat extraction) to save lives in case of fire

Vizhum Gymnasium

Our references

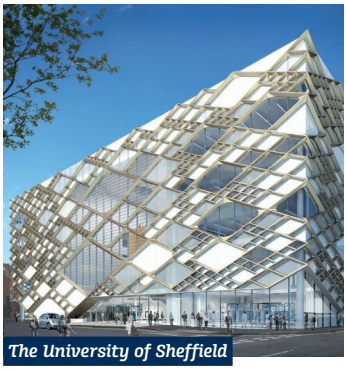
Business School Centre Stuttgart

Vizhum High School

EuroLam equipped more than 100 schools, high schools, universities & vocational schools with its louvre windows for natural ventilation, smoke & heat extraction like:

- Vitzhum High School in Dresden
- Music School in Essen
- Business School Centre in Stuttgart
- The University of Sheffield

Music School in Essen



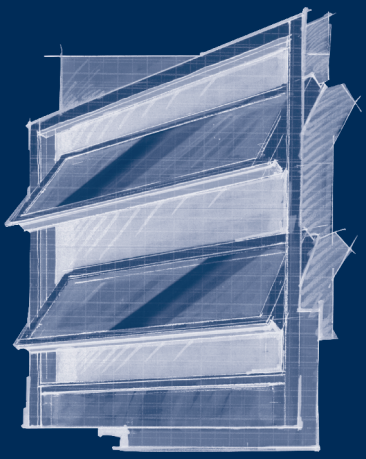
The University of Sheffield

EuroLam

EuroLam Louvre windows

NSHEV CERTIFIED EN 12 101-2

- Natural smoke heat ventilators
- Louvre windows ventilation
- Special constructions
- Weatherproofed louvres
- Sunproofed louvres
- Soundproofed louvres



EuroLam GmbH
Kupferstraße 1
99510 Wiegendorf
Germany

Fon: +49 (0) 36462 . 33 88 0
Fax: +49 (0) 36462 . 33 88 13

Mail: info@eurolam.de
www.eurolam.net

www.eurolam.de/healthy_indoor_climate

EUROPÄISCHE UNION
Europäischer Sozialfonds

ESF
EUROPA FÜR THÜRINGEN
EUROPÄISCHER SOZIALFONDS

MADE IN GERMANY.

Funded by the State of Thuringia by funds from the European Social Fund