

BlueKit Lift Systems – for new buildings

# SAVING ENERGY WITH INTELLIGENT SHAFT VENTILATION





### **About BlueKit**

As a D+H Group brand, BlueKit is a market leader in the design, manufacture and sales of solutions for efficient smoke extraction, needs-optimised ventilation of lift as well as utility shafts and reliable weather protection covers. For more than ten years, BlueKit has been providing solutions for intelligent energy savings as well as safety and well-being in buildings.



## WHAT IS BLUEKIT AND HOW DOES IT WORK?

To extract smoke from the lift shaft and also to ventilate it: The top of the shaft has a recessed external opening through which valuable energy is also lost. Heated indoor air escapes through leaky lift doors due to the stack effect in the heating season, which leads to a huge rise in heating costs.

BlueKit systems feature a closing element which is installed in the external opening of the lift shaft and prevents heated or air-conditioned indoor air from continuously escaping. In an emergency or if ventilation is required the closing element opens automatically. The BlueKit system consists of only a few components which are all certified to EN standards. It is compatible with every lift type and can easily be installed or retrofitted.

### THE RIGHT SYSTEM FOR EVERY SHAFT

Standard sizes or special solutions: the two product variants BlueKit L-AIO and L-CT satisfy all constructional and technical requirements.

The L-CT system is an economical solution for standard shafts and can be combined with all smoke detection systems.

With their extended scope of functions L-AIO solutions offer flexible adjustment options and are ideal for use in energy efficient buildings. They are suitable for multiple shafts and lifts with machine room and can be extended to include wind/rain sensors, timer and key switch. They can also be connected to a fire alarm system (FAS).

## YOUR BENEFITS

- ✓ Reduction of energy costs
- ✓ Reliable smoke detection and demand-controlled ventilation
- ✓ Reduction of lift maintenance cycles
- ✓ Reduction of moisture and cold draughts
- ✓ Upgrading of air quality
- ✓ Sustainability due to reduction in CO<sub>2</sub> emissions

## WHY BLUEKIT?

- ▶▶ Tested and certified technology
- ▶▶ Legally sound and patented
- ▶▶ Future-oriented systems
- ▶▶ Comprehensive service
- ▶▶ Collaboration with leading lift engineering specialists

WITH CERTAINTY THE SIMPLEST SOLUTION  
TO SAVE VALUABLE ENERGY AND ENSURE  
WELL-BEING IN EVERY BUILDING!

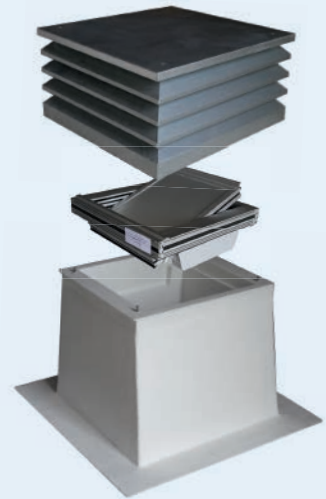
# ENERGY EFFICIENCY AND SAFETY

Statutory requirements for shaft smoke extraction

## THE NEW-BUILD SOLUTION: THERMO FLAP (TF)

### THERMALLY INSULATED WEATHER PROTECTION WITH INTEGRATED VENTILATION FLAP

- ▶▶ Integration in thermal insulation
- ▶▶ 100% weather protection
- ▶▶ Ready-to-install solution
- ▶▶ Integrated louvre window - air permeability: Class 3
- ▶▶ Insect screen in louvre cover
- ▶▶ Outstanding heat transfer coefficient of 0.41 - 0.55 W/m<sup>2</sup>K
- ▶▶ Base made of glass fibre reinforced plastic (GFRP) prevents condensate formation
- ▶▶ Smoke extraction and ventilation ensured through openings on 4 sides, regardless of wind direction
- ▶▶ Space saving: Dimensions of louvre cover correspond to the GFRP base



### LIFT STANDARD EN 81-20

The ventilation requirements for the lift car, shaft and machine rooms of the lift cars are set out in EN 81-20 Appendix E.3. The safety and well-being of persons who are using the lift, working in the shaft or trapped in the lift car or shaft because a fault has occurred, depend on the following factors:

- ▶▶ Ambient temperature of the shaft in the building
- ▶▶ Volatile organic substances, CO<sub>2</sub>, air quality
- ▶▶ Fresh air supply in the shaft
- ▶▶ Moisture, dust, smoke
- ▶▶ Airtightness of the shaft and entire building

According to the German Federal Environmental Agency for example, a value of 2000ppm for the CO<sub>2</sub> concentration in closed rooms is unacceptable. Regular checks of the air quality around the lift car are therefore indispensable.

The BlueKit Lift-Status-Transmitter monitors influencing factors such as temperature, air quality as well as the movement and malfunctions of the lift and, if necessary, transmits a radio signal with a request for ventilation to the lift controller.

# RELIABLE SMOKE DETECTION

The right solution for any shaft



## LIFTBEAM

The fire detection system operates by reflecting an infrared beam on a prism. If smoke is present, the system responds within a matter of seconds to any reduction in the reflected light. The Auto-Align (automatic motor-driven alignment) and Auto-Optimise (soiling compensation) functions make the LIFTBEAM an ideal smoke detection system. The system is easy and particularly quick to install and is suitable for shafts up to 100 metres long.



## POINT SMOKE DETECTOR

If a fire breaks out, the point smoke detectors enable reliable and fast smoke detection in the lift shaft according to the scattered light principle. The point smoke detectors are fastened to the wall of the shaft with installation brackets. They can be used to monitor lift shafts, machine rooms and/or evacuation levels. They are particularly suitable for challenging installation situations and low shafts.



## SMOKE EXTRACTION SYSTEM

With the smoke extraction system (RAS) intake pipes sample air along the entire length of the shaft. These samples are continuously monitored for fire smoke by the evaluation unit. The system can be used for connection to a fire alarm system (FAS) and equipped with an optional emergency power supply.

## BLUEKIT CONNECT

### THE INTELLIGENT WEB TOOL FOR CONFIGURATION AND CALCULATION OF BLUEKIT SOLUTIONS

BlueKit CONNECT enables solutions for extraction of smoke from lift shafts to be configured and calculated digitally, quickly and easily. Using the web-based tool, customised solutions for projects can be generated based purely on project data without requiring in-depth knowledge of the product.

During this process, the program uses information such as building type, existence of a machine room, energy standard, size of the lift shaft and further criteria. On this basis, the program suggests the optimum solution from a technical and economic standpoint and the suggested configuration can be adapted manually at any time.

Once a suitable solution has been chosen, the corresponding calculation including estimated installation time is displayed. This can be ordered directly from BlueKit, saved or exported as a PDF. Users with their own personal login details can save and process projects, or use them as templates.

Register now under [www.connect.bluekit.de](http://www.connect.bluekit.de)

# CONNECT

# THE BLUEKIT SYSTEM

Reliable components working together



## 1 VENTILATION ELEMENT (NSHEV)



Stemming of energy losses due to sealing of the opening in the lift shaft.  
Ventilates and removes smoke if required.

- Weather protection element is optionally available
- For vertical or horizontal installation
- Thermoflap: Thermally-insulated NSHEV for horizontal installation
- Slide Flap: Flat NSHEV for horizontal installation when space in top of shaft (protected area) is restricted

## 2 SYSTEM CONTROLLER



Receipt of sensor data and controller of ventilation element. Connection to the lift controller.

- Stand-alone central unit with temperature sensor and extended connection options

## 3 SMOKE DETECTOR



Smoke detection throughout the entire shaft height and forwarding of the signal to the system controller.

- Three different variants: Linear detector (LIFT.BEAM), (point smoke detector (PD), smoke extraction system
- Selectable depending on shaft size and requirements

## 4 LIFT STATUS TRANSMITTER (LST-VOC)



Monitoring of air quality and temperature directly at the lift car. Additional monitoring of movement or malfunctions of the lift. Transmits a radio signal requesting ventilation to the system controller if required.

- Temperature sensor, VOC sensor and acceleration sensor
- Radio link to the system controller
- Connection to the lift emergency call system

## 5 MANUAL TRIGGER BUTTON WITH STATUS DISPLAY



Manual controller and triggering of a ventilation or smoke extraction command. Including display of system status.

- LED status display, depending on system and variant: Ventilation, fault, fire alarm

# YOUR CONTACT PERSON

Find your BlueKit specialist here.



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