



LAMILUX SKYLIGHTS ROOFS OF LIGHT

LAMILUX CI SYSTEMS

MAXIMUM EFFICIENCY

"Modern construction is shaped by the topic of energy efficiency. Skylights in industrial and administrative buildings, aesthetic showpiece buildings and private residences are regarded as an integral part of energy-efficient building constructions. At LAMILUX, we focus on the permanent development of innovative daylight solutions for sustainable and energy-efficient construction of the future."

Dr. Heinrich Strunz

Executive Manager LAMILUX Heinrich Strunz GmbH



The LAMILUX CI Philosophy

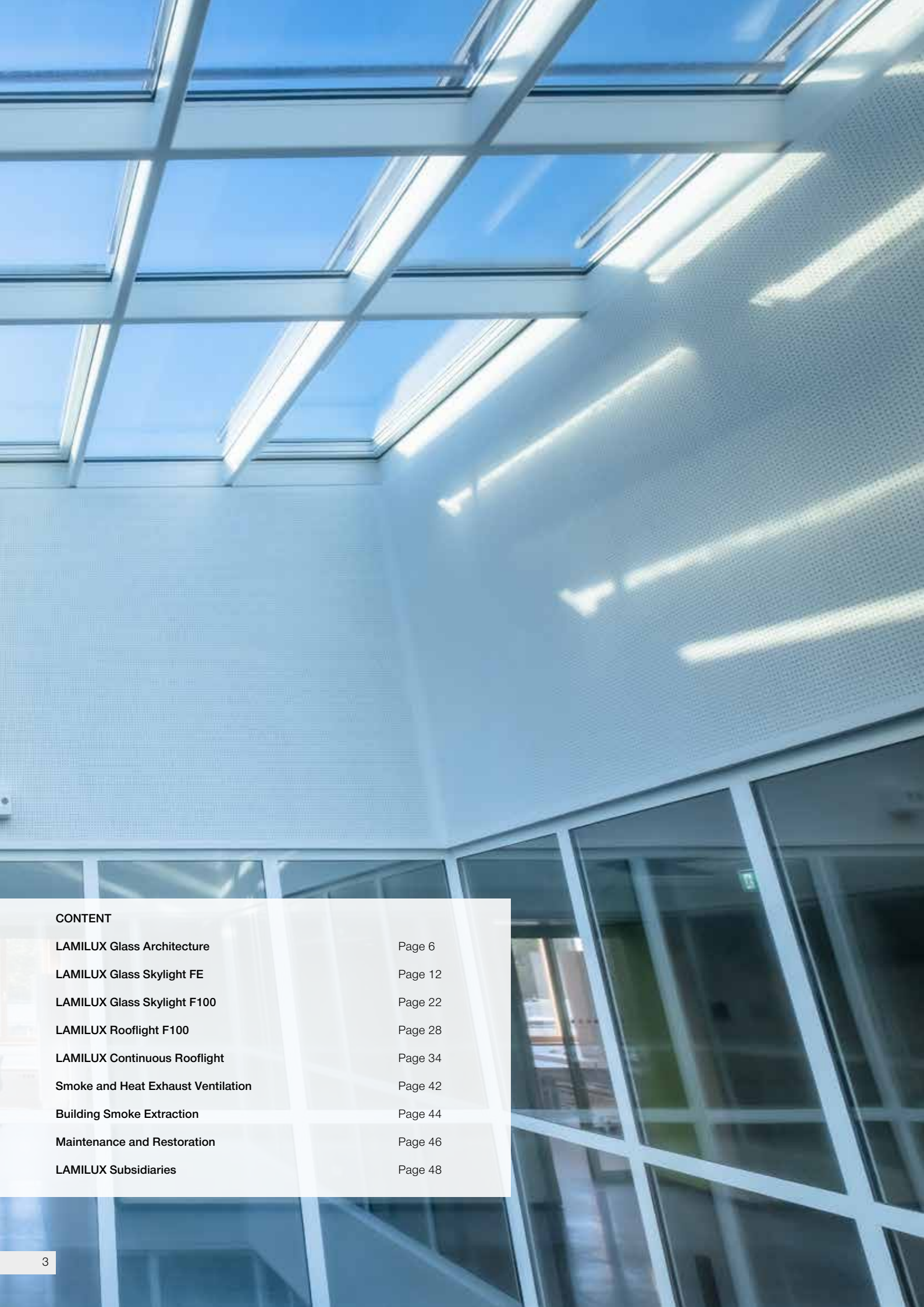
Customer value is the reason we exist – and the focus of our activities. This requires harmony, identity and a balance between customer value and company strategy.

The principles that guide our company's actions and customer relations are set out in LAMILUX's company philosophy:

Customized Intelligence – serving customers is our first priority:

This requires outstanding performance and leadership in all areas relevant to customers, particularly in the role of:

- A leader in quality – optimum benefit for customers
- A leader in innovation – at the cutting edge of technology
- A leader in service – fast, uncomplicated, reliable and friendly
- A leader in expertise – optimum sales and technical advisory services
- A leader in solving problems – customised, made-to-order solutions



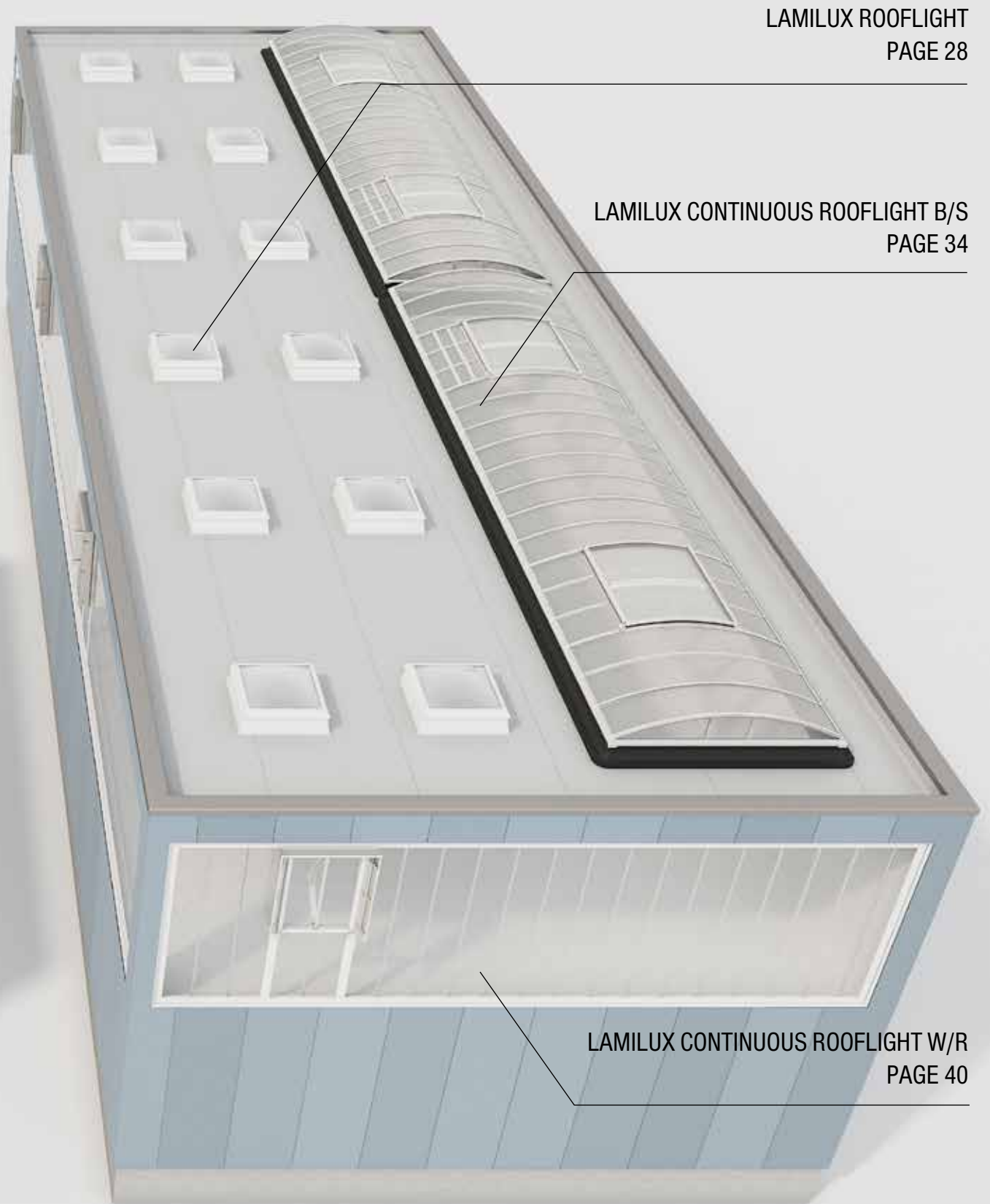
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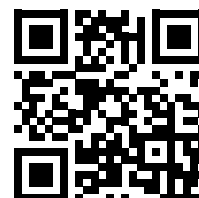
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GLASS ARCHITECTURE



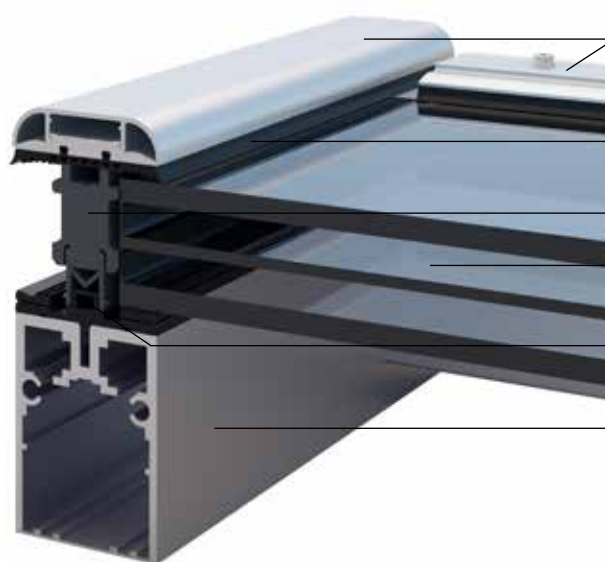
LAMILUX

GLASS ROOF PR60

Design glass roofs that are tailored to the individuality of your building project: The LAMILUX Glass Roof PR60 is based on a highly flexible mullion-transom system and enables almost all conceivable shapes at angles between zero and 90 degrees: from saddleback and hipped roofs, pyramids and arched roofs to fully customised geometries.

The system has considerable dimensional stability, particularly at the supporting joints, thanks to the specially interlocking slide-in connectors. This even facilitates complicated profile joints without any difficulty.

In addition, the narrow face width of the profiles (60 millimetres) ensures a high level of daylight intake – hence the 60 in the name of our mullion-transom construction. The LAMILUX Glass Roof PR60 is available in many glazing types, such as heat insulation glass, sun protection and sound insulation glass as well as light-guiding and light-dispersing glazing types. The large number of optional shade systems ensure controlled daylight intake.



Cover strips with splash water duct
(available with optional cover profile)

High degree of driving rain tightness and airtightness thanks to
continuous EPDM outer seal

Thermally optimised insulation core

Double or triple glazing
available in many glazing types

Internal, multi-stage seal system
with secondary water drainage

High intake of daylight thanks to
narrow support profiles



Product variant LAMILUX Glass Roof PR60 Passivhaus



Product variant LAMILUX Glass Roof Fire Resistance REI30

**ENERGY EFFICIENCY**

Savings on heating costs and minimised risk of condensation thanks to optimal isothermal characteristics

All-round optimum thermal insulation in a thermally separated overall construction

Preservation of a lot of thermal energy in the building thanks to the tight overall system

Passivhaus-certified variant (phA) with optimised thermal insulation and excellent airtightness values

**COMFORT & DESIGN**

Unique full service thanks to planning, construction and installation of the glass structure from a single source

Made-to-order complete solutions for daylight, SHEV, ventilation and control technology

Narrow supporting profiles ensure an unobstructed view to the outside and a high intake of daylight

LAMILUX Ventilation Flap PR60 in an architecturally appealing design with a roof upstand of only 40 mm

**FUNCTIONALITY IN EXTREME WEATHER CONDITIONS**

Tested watertightness in heavy rain and during storms (impervious to driving rain, in accordance with DIN EN 13830, Class RE1950)

High resistance to wind loads (2000 Pa as per DIN EN 13830)

Outstanding airtightness (AE 3000 positive test pressure as per DIN EN 13830)

Optimised soundproofing and minimised rain noise thanks to special glazing ($R_w = 46$ dB as per EN 10140-2)



BMW GROUP FIZ, MUNICH

Project:

Complete renovation of a four-storey building, used for product development, to reconfigure the layout giving best use of space. Covering of the area located between the main and outer building with a special glass construction.

Systems:

- Glass roof construction composed of 60 axes each with 15 panes
- A total of 900 panes, 225 of which have a unique shape
- Removal of the old and installation of the new glass roof while normal operations continued
- Elevated installation of the glass panes to compensate for any deflection



NURSERY, WIGGENSBACH

Project:

New construction of a nursery with a play area as a multifunctional zone covered by a glass roof. Clients' focus on biologically harmless materials where possible.

Systems:

- Two LAMILUX Glass Roofs PR60 each 2.8 m wide and 6.8 m long and with 5° inclination
- Consists of five glass panels with triple thermal insulation glazing
- Installed onto a green roof



SINGLE FAMILY HOUSE, NORTH GERMANY

Project:

New construction of a spacious single family house with a focus on maximum, show-stopping daylight intake.

Systems:

- One LAMILUX Glass Roof PR60 in a pyramid shape with a surface inclination of 25° and structural roof opening size of 4 x 4 m
- Two integrated LAMILUX Ventilation Flaps PR60 for daily ventilation



BYODO NATURKOST, MÜHL DORF

Project:

Nature first: Natural food centre with high light transmission to illuminate the hall.

Systems:

- One LAMILUX Glass Roof PR60 with a surface inclination of 3° and structural roof opening size of 14.5 x 16 m in 84 glass panels
- Integration of twelve LAMILUX Ventilation Flaps PR60 made of thermally separated, extruded aluminium profiles



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GLASS SKYLIGHT FE

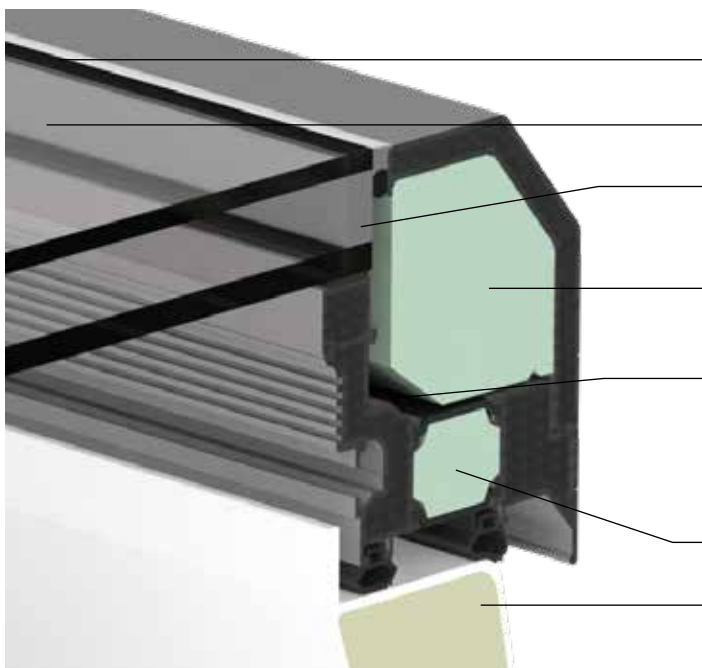


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GLASS SKYLIGHT FE

Sophisticated design in a number of variants: The redevelopment of the LAMILUX Glass Skylight FE represents a milestone in product development at LAMILUX. Architects, builders and building users benefit from an innovative frame profile and sophisticated design features with a wealth of additional benefits. For this, the skylight received the German Design Award 2019, the Red Dot Award 2019 as well as two Plus X Awards.

The design of the new LAMILUX Glass Skylight FE can also be adapted to any construction project's overall architectural concept. Design freedom is offered with a wide variety of glazing and sizes up to 2.5 x 2.5 metres. In addition the drive concealed within the profile frame and the freely selectable exterior and interior colours of the skylight offer choice and flexibility. Just as impressive is its all-round optimum thermal insulation in a compact overall system free of thermal bridges and certification in Passivhaus class pH_C.



Structural Glazing design

Flat drainage surface

"Warm edge" (spacers between the panes, made of materials with low thermal conductivity) **as a standard feature**

Integration of all drives and components in the profile frame

TAD – Thermo Active Design: A patented component below the glazing support for surface enlargement absorbs more heat energy from the room air contributing to the optimised isothermal curve

Thermally optimised insulation core

Insulated GRP upstand: Manufactured without joints (optional) and with a continuous insulation core made of 60 mm thick PU foam

**ENERGY EFFICIENCY**

Savings on heating costs and minimised risk of condensation thanks to flawless isothermal characteristics

All-round optimum thermal insulation in a compact overall system free of thermal bridges and certification in Passivhaus class pHc

Preservation of thermal energy in the building thanks to the tight overall system

Seamless and vapour-tight upstand made of glass-fibre reinforced composite with integrated insulation

**COMFORT & DESIGN**

Uniform appearance throughout thanks to new joining technology: no visible screw joints or weld seams as well as four-sided flat water drainage

Easy installation thanks to completely pre-assembled delivery of the skylight

The integration of all drives, power adapters, cables and other components into the frame of the skylight creates a smooth interior design

Variety of design and colours thanks to freely selectable exterior and interior colours of the flat roof skylight

**FUNCTIONALITY IN EXTREME WEATHER CONDITIONS**

Tested watertightness in heavy rain and during storms (highly impervious to driving rain, in accordance with DIN EN 12208, Class E 1950)

High stability against wind load (highest wind load class C5 according to DIN EN 12210)

Excellent air permeability (performance class 4 – DIN EN 12207)

Optimised sound insulation and minimised rain noise due to special glazing ($R_w = 38$ dB)

**SAFETY**

Approved fall-through protection as per DIN 18008-6

Preventive fire protection according to DIN 18234: Prevents fire spreading on the roof without additional measures

Use as a smoke outlet in stairwells

High hail resistance due to TSG exterior pane as standard



Product variant LAMILUX Glass Skylight FE 3°



Product variant LAMILUX Glass Skylight FE Pyramid or Hipped



Product variant LAMILUX Glass Skylight FE Circular



Product variant LAMILUX Glass Skylight FE Passivhaus

LAMILUX

FLAT ROOF EXIT COMFORT

What the garden is to one person, the roof terrace is to another – preferably with direct access. A new dimension of roof access is offered by the LAMILUX Flat Roof Exit Comfort range. For attic apartments, a previously unattainable light incidence is realised and an even easier access to the roof is created.

The indoor climate also benefits from the systems' high energy efficiency and unrestricted use as a ventilation device. Our roof hatches are delivered to the construction site completely pre-assembled, lifted onto the roof using a crane provided by the customer and then installed very straightforwardly and quickly.



LAMILUX Flat Roof Exit Comfort Solo

Here, the roof access hatch of 120 x 350 cm opens horizontally by means of a built-in rack and pinion drive. The triple glazing is enormously energy-efficient, the 6° inclination ensures a self-cleaning effect and the drive units are concealed.



LAMILUX Flat Roof Exit Comfort Duo

This roof hatch opens two wings of 60 x 300 cm each to the long sides. It can also be equipped with high-quality functional glass and can be used as a ventilation device. The element has no disturbing edges or visible drive units on the inside and is insulated very well.



LAMILUX Flat Roof Exit Comfort Swing

The roof hatch opens its 300 or 350 cm long glass element hydraulically by 84° using a key switch. Within 25 seconds, it opens the approx. 100 cm wide way onto the roof. The 5° inclination ensures an ideal self-cleaning effect.



LAMILUX Flat Roof Exit Comfort Square

With this roof hatch, hydraulic drives open the 4 m² glass surface up to 70° within 45 seconds. Due to the square shape, spiral or platform staircases can be used, which especially meets purist design standards.





APARTMENT, BERLIN

Project:

Creation of a luxury living space with an exclusive ambience thanks to generous daylight intake with controllable ventilation and convenient access to the roof terrace.

Systems:

- One LAMILUX Flat Roof Exit Comfort Duo as a two-part, horizontally opening flat roof element (automatic opening and closing)
- Compact, extremely energy-efficient overall structure, placed on a glass-fibre reinforced composite upstand with an integrated core insulation block
- Low-noise sliding on stainless steel telescopic rails



PAULUSKIRCHE, TRAUNREUT

Project:

Renovation of the old skylights in the bell tower, which provide direct daylight intake in the chancel.

Systems:

- Eight fixed LAMILUX Glass Skylights FE 3°
- Eight Renovation Frames 11 to use the existing upstands with the new skylights



NORRKÖPING SCHOOL, SWEDEN

Project:

Conversion of a former industrial building into a school building. Supply of the building with natural daylight even on cloudy winter days.

Systems:

- LAMILUX Glass Skylight FE Pyramid in the dimensions 180 x 180 cm with a U_g value of 1.1 W/(m²K) and a sound insulation value of 35 dB
- Upstands made of glass-fibre reinforced composite, 50 cm in height
- Condensate detector



MILTON KEYNES UNIVERSITY HOSPITAL, ENGLAND

Project:

New construction of an administration building with a focus on aesthetic, natural lighting.

Systems:

- Six LAMILUX Glass Skylights FE Circular opening for ventilation
- 17 LAMILUX Smoke Lifts Glass Skylight F100
- Six motors in special design for flat roof windows
- Wind and rain sensor set
- SHEV central units and CO₂ alarm stations



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GLASS SKYLIGHT F100

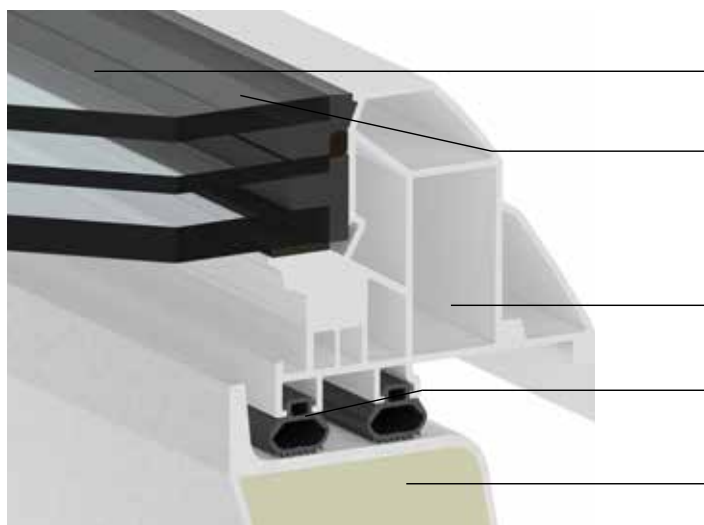


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GLASS SKYLIGHT F100

The LAMILUX Glass Skylight F100 is an energy-efficient skylight for rooms with high optical demands. Particularly in residential, administrative and office buildings, it floods rooms with daylight and fresh air. Various shading options can be used to control the amount of light and heat entering the room – conveniently controlled up to a comfortable climate.

Not only the building user, but also the builder benefits from practical advantages: The skylight is very quick and easy to install. It is completely pre-assembled on the upstand when it is delivered to the construction site and it can be fixed onto the flat roof immediately – both the ventilated and the fixed variant.



First flat roof window with national technical approval featuring a **Structural Glazing design**

Flat drainage surface: The unique frame profile provides a smooth transition between the glazing and the border frame, creating an unobstructed drain for rainwater

Thermally optimised PVC border frame

Outstanding, certified air-tightness due to the **balloon double sealing system**

Insulated GRP upstand: Manufactured without joints (optional) and with a continuous insulation core made of 60 mm thick PU foam; Optional ventilation drives concealed in the upstand



Product variant LAMILUX Glass Skylight F100 Circular

**ENERGY EFFICIENCY**

Savings on heating costs and minimised risk of condensation thanks to flawless isothermal characteristics

All-round optimum thermal insulation in a compact, thermal-bridge-free overall system

Preservation of thermal energy in the building thanks to the tight overall system

Seamless and vapour-tight upstand made of glass-fibre reinforced composite with integrated insulation

**COMFORT & DESIGN**

Optional concealed integration of all drives, cables and other components into the frame

Avoidance of internal plastering work thanks to smooth, silk-white interior finish of the upstand

Permanently clear view, infinitely variable water drainage and generous daylight incidence due to scratch-resistant glazing and uniquely designed frame profile

Optional simplification of connection work through optimum structural attachments for a wide variety of sealing techniques

**FUNCTIONALITY IN EXTREME WEATHER CONDITIONS**

Tested watertightness in heavy rain and during storms (impervious to driving rain, in accordance with DIN EN 12208, Class E 1950)

Optimised sound insulation and minimised rain noise due to special glazing ($R_w = 38$ dB)

High stability against wind and snow loads (wind load – class C4 according to DIN EN 12210)

Optional internal or external shading as well as UV-resistant edge seal against strong solar radiation

**SAFETY**

Approved fall-through protection according to GS-Bau 18

Preventive fire protection according to DIN 18234: Prevents fire spreading on the roof without additional measures

Use as a smoke outlet in stairwells

Available as fully certified smoke and heat exhaust ventilation device according to DIN 12101-2



FRONIUS, NEUHOFF

Project:

New construction of a production and administration building for the manufacturer of electrical appliances.

Systems:

- Eight LAMILUX Glass Skylights F100
- 30 LAMILUX Rooflights F100
- One LAMILUX Continuous Rooflight B
- Five LAMILUX Smoke Lifts Continuous Rooflight B with Safety Stripes
- Two LAMILUX Glass Roofs PR60
- Eight LAMILUX Ventilation Flaps PR60

CARITAS, HAGEN

Project:

Renovation of the roof of the Caritas workshop for people with disabilities: Natural illumination of the premises with around 70 LAMILUX Glass Skylights F100. Flush surface allows rainwater and dirt to run off.

Systems:

- LAMILUX Glass Skylight F100
- LAMILUX Glass Skylight FE



WORKSHOPS, STRAUBING

Project:

Modernisation of a workshop building with over 120 LAMILUX Glass Skylights F100. Increase of natural daylight and reduction of running energy costs.

Systems:

- LAMILUX Glass Skylights F100 in different sizes
- Interior sun protection



ST. SEVERIN NURSERY, GARCHING

Project:

New construction of the nursery with a rippled roof shape. Integration of skylights in the large recreational and dining area.

Systems:

- 13 LAMILUX Glass Skylights F100 Circular in a fixed design and a structural roof opening size of 150 cm
- Nine LAMILUX Glass Skylights F100 Circular opening for ventilation with a stroke height of 300 mm



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ROOFLIGHT F100

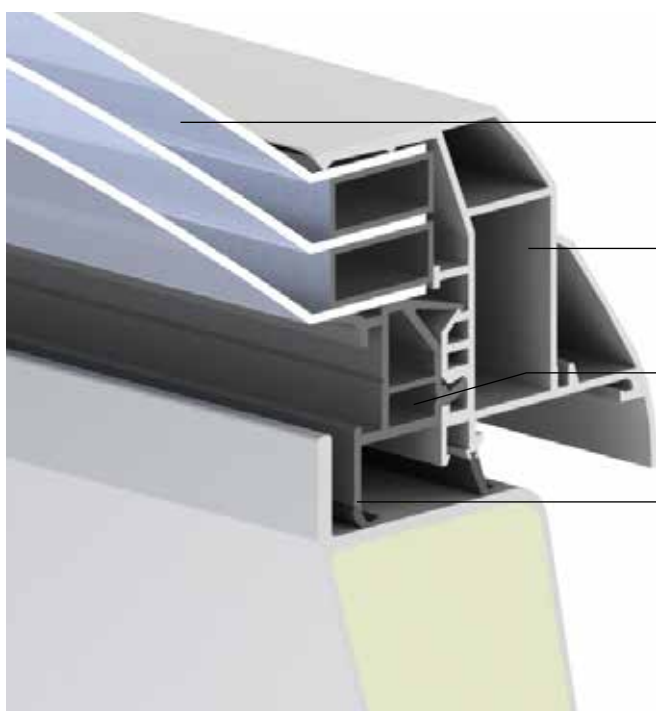


LAMILUX

ROOFLIGHT F100

The domed rooflight is the ideal skylight on flat roofs of production halls, warehouses, sports and exhibition halls. It not only brings daylight and fresh air into the building, but also ensures the personal and property safety as a smoke and heat exhaust ventilation unit. Thanks to a multi-layered seal system and up to quadruple glazing, the rooflight boasts exceptional heat-insulation values.

The innovative border frame and the thermally insulated upstand made of glass-fibre reinforced composite also contribute to the considerable heat insulation performance. The rooflight is available in both a fixed and ventilated design as standard in dimensions up to 3 x 3 metres. Other dimensions are possible on request.



Customised glazing systems for optimal daylight utilisation in the different variants

Partial long-fibre reinforcement for warp-resistant border frame

Composite glazing bead with surrounding functional groove for retrofitting fitting components

Multi-layered seal system for compact, impermeable system



Product variant LAMILUX Rooflight F100 Circular

ENERGY EFFICIENCY

All-round optimum thermal insulation with minimised condensation risk thanks to the overall construction completely free of thermal bridges

Preservation of the thermal energy in the building thanks to the internal, multi-layered seal system

Fully heat-insulated upstand made of GRP, optionally available with heat-insulated base flange

Rooflight with good life cycle assessment and comprehensive environmental product declaration as per DIN EN ISO 14025 and DIN EN 15804 (EPD - modules A1 - D)

FUNCTIONALITY IN EXTREME WEATHER CONDITIONS

Tested watertightness in heavy rain and during storms (Driven Rain Index DRI up to 14.7 m²/s)

High stability in heavy rain and during storms

High resistance to wind loads up to UL 1780 as per DIN EN 1873

Hail resistance as per VKF No. 10 test regulations

COMFORT & SAFETY

Easy processing thanks to completely pre-assembled delivery of the skylight

Lockable ventilation as standard with the option of retrofitting ventilation drives at any time

Passive fire protection: Compliance with DIN 18234 for the prevention of fire spread on rooftops without additional measures

Available as certified smoke and heat exhaust ventilation device according to DIN 12101-2



METRO SIMMERING, VIENNA

Project:

New construction of a warehouse with a total of 125 LAMILUX Rooflights F100 and five LAMILUX Continuous Rooflights B for optimal daylight inside the warehouse as well as daily aeration and ventilation function as natural smoke and heat exhaust ventilation units (NSHEVs).

Systems:

- 125 LAMILUX Rooflights F100 in various dimensions
- Rooflights with double composite glazing
- Additionally five LAMILUX Continuous Rooflights B
- Continuous Rooflights designed with two overlaid PC sheets (each 10 mm) for excellent thermal insulation



GROB, MINDELHEIM

Project:

New construction of a production facility. Realisation of daily aeration and ventilation via cylinders with spring connection as well as actuation of the SHEV and ventilation function through only one pipe.

Systems:

- 493 LAMILUX Rooflights F100 in 180 x 240 cm
- Partial implementation as LAMILUX Smoke Lift Rooflight F100
- CO₂ alarm stations



FRONIUS, NEUHOF

Project:

New construction of a production and administration building for the manufacturer of electrical appliances.

Systems:

- 30 LAMILUX Rooflights F100
- One LAMILUX Continuous Rooflight B
- Five LAMILUX Smoke Lifts Continuous Rooflight B with Safety Stripes
- Two LAMILUX Glass Roofs PR60
- Eight LAMILUX Ventilation Flaps PR60
- Eight LAMILUX Glass Skylights F100

PNK LOGISTICS PARK, VALISCHEVO

Project:

New construction of an 18,000 m² logistics centre for a Russian pharmaceutical manufacturer. 300 LAMILUX Smoke Lifts Rooflight F100 are installed on the large roof surface of the warehouse complex near Moscow. These are used for natural illumination of the building and as smoke and heat exhaust ventilation in the event of a fire.

Systems:

- 300 LAMILUX Smoke Lifts Rooflight F100 in 120 x 150 cm
- CO₂ alarm stations



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CONTINUOUS ROOFLIGHT

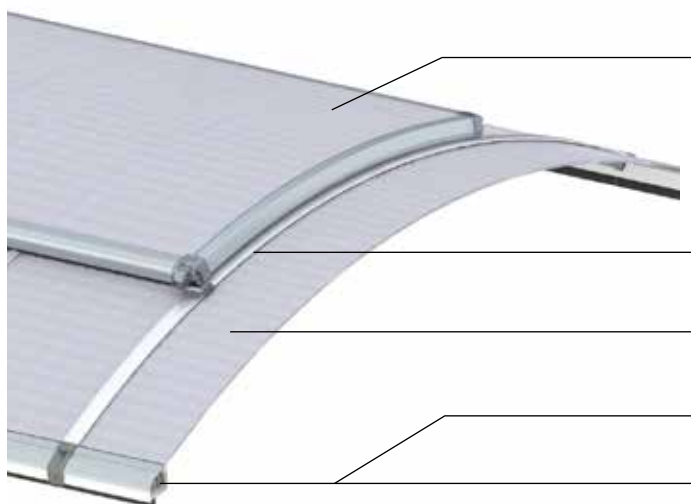


LAMILUX

CONTINUOUS ROOFLIGHT B

Our LAMILUX Continuous Rooflight B is a pioneering skylight in terms of energy and statics. That precisely means that it is an arc-shaped, modular dome light system with an optimised energy balance thanks to its seamless thermal separation. Thanks to the wide range of ventilation and smoke and heat extraction flaps that can be integrated into the continuous rooflight, optimum solutions can be found for almost every type of application for smoke extraction as well as for the aeration and ventilation of the object.

The LAMILUX Continuous Rooflight B is optimally suited for large-area illumination of halls with daylight as well as for use as large-area heat extraction with the melt-out glazing variants in case of fire. The system is optimised as standard for use as a low-cost solution in industrial halls and warehouses, but can also be manufactured for installation in sports halls and retail outlets, for example, by using glazing with improved thermal insulation properties.



Arched flap as ventilation or certified smoke and heat exhaust ventilation **with optimised U_f values**, excellent thermal values and perfected flap adjustment system

Tension bar with active expansion absorber

Wide range of variants for polycarbonate glazing for every use

Isothermal Load Converter

Base profile: Effective prevention of fire spreading on the roof as per DIN 18234

LAMILUX

CONTINUOUS ROOFLIGHT S

The LAMILUX Continuous Rooflight S is a modular, ridged roof continuous rooflight system and can be fitted with different composite glazing types according to requirements. Its completely thermally separated profile system ensures optimum thermal protection and minimises the risk of condensation on the construction's surfaces compared with conventional, non-thermally separated structures.

Combined with the frame system, which has been optimised for the construction, ideally matched solutions are possible without additional upstands provided by the client. Optimum smoke removal and ventilation solutions for the property for almost every use as a result of ventilation and smoke and heat exhaust flaps that can be integrated.





Product variant LAMILUX Continuous Rooflight B Passivhaus



ENERGY EFFICIENCY

Tested and certified heat insulation values (ETA – European Technical Assessment)

Optimisation of isothermal characteristics and rebate base ventilation as well as minimisation of the condensate risk due to thermal separation on all construction components

Optimal insulating effect and air-tightness for the overall structure, suitable for air-tight shells of buildings (blower door)

Customised intake of daylight and solar heat input thanks to object-specific composite glazing with heat transmission coefficients of up to $1.0 \text{ W}/(\text{m}^2\text{K})$



FUNCTIONALITY IN EXTREME WEATHER CONDITIONS

Durability thanks to the active expansion absorber as optimal protection of the construction in the event of snow, ice, wind and excessive heat

High level of stability and safety under wind and snow loads thanks to the dynamic torque control in the flaps

Resistance to hail tested as per VKF Bern guidelines and tested watertightness in heavy rain and during storms ($\text{DRI } 3.0 \text{ m}^2/\text{s}$)

Impervious to driving rain thanks to welded sealing frames for flap systems and certified airtightness for the overall system



SAFETY

Preventive fire protection according to DIN 18234: Prevention of fire spreading on the roof as a result of the Linear Burn-through Protection

Melt-out of the glazing in the event of a fire to ensure heat extraction

Integration of natural smoke and heat exhaust ventilation devices (NSHEV) and smoke and heat exhaust control systems for smoke removal from the building in the event of a fire

Glazing types that are resistant to flying sparks and radiating heat



LAMILUX Continuous Rooflight B

STUTE, PADERBORN

Project:

Renovation following storm damage at the premises of food manufacturer Stute.

Systems:

- 18 LAMILUX Continuous Rooflights B in different sizes
- 15 LAMILUX Smoke Lifts Continuous Rooflight B integrated as single flaps



LAMILUX Continuous Rooflight S

EVENTS HALL, WURZEN

Project:

Renovation and conversion of a former production hall into an events hall.

Systems:

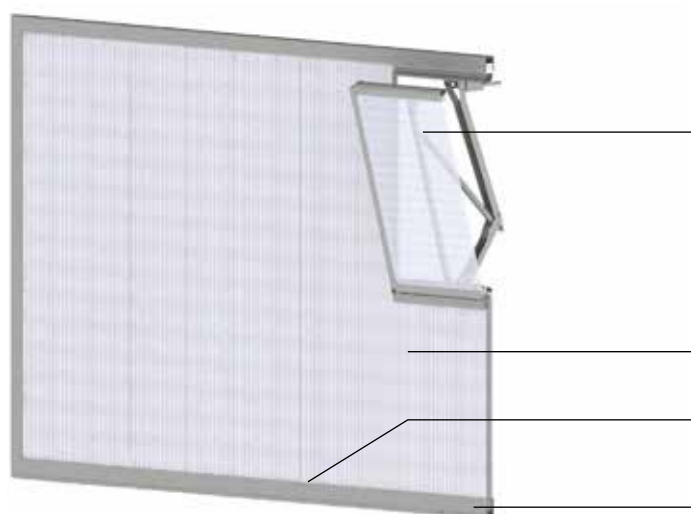
- 21 LAMILUX Continuous Rooflights S 30° with lengths of up to 28 metres
- Eight LAMILUX Smoke Lifts Continuous Rooflight S

LAMILUX

CONTINUOUS ROOFLIGHT W | R

The system from LAMILUX enables energy-optimised, break-proof glazing of lateral light surfaces. Non-supporting walls can be used as lighting, ventilation, and smoke and heat extraction surfaces. Ventilation flaps and smoke and heat exhaust ventilation flaps, as well as their various ventilation and activation variants, can be easily integrated into the continuous rooflight.

We differentiate between the Continuous Rooflight R system, which is installed as shed glazing, and the Continuous Rooflight W system, which is installed as a front-mounted facade or in the reveal. With both systems, the daylight can be optimally used through lateral light intake. It enables a clear-cut architectural division of the facade. Its completely thermally separated profile system ensures optimum thermal protection and minimises the risk of condensation on the construction's surfaces.



Flap as ventilation or certified smoke and heat exhaust ventilation

Range of variants for polycarbonate glazing

Capping section

Thermally separated aluminium profile



ALTER POSTBAHNHOF, LEIPZIG

Project:

Renovation of Alter Postbahnhof in Leipzig to create commercial and office spaces.

Systems:

- Ten LAMILUX Continuous Rooflights W/R as shed roof with a surface inclination of 60°
- 47 single flap "PHOENIX" ventilators of our subsidiary roda



COROPLAST, WUPPERTAL

Project:

Supplying a production hall with maximum daylight.

Systems:

- LAMILUX Continuous Rooflight W/R as a shed construction with a length of 18 metres in an overall system completely free of thermal bridges
- 15 SMOKEJET louvered ventilators of our subsidiary roda

LAMILUX SMOKE AND HEAT EXHAUST VENTILATION SYSTEMS

Natural smoke and heat exhaust ventilation units (NSHEVs) save lives and protect property. This is why all LAMILUX product groups are also available as NSHEV. LAMILUX smoke and heat exhaust ventilation (also SHEV) systems are synonymous with safety in compliance with DIN EN 12101-2, DIN 18232, the German Industrial Building Guidelines and various VdS guidelines.

These systems use thermal lift to channel smoke, heat and fumes into the open air. As fresh air is drawn in, a smoke-free layer forms near to the ground: As a result, people are able to escape quickly into the open air and the rescue services can extinguish the fire and save lives safely and do so with the necessary visibility.



LAMILUX Smoke Lift Rooflight F100



BUILDING SMOKE EXTRACTION – LAMILUX AS A SYSTEM INTEGRATOR

Building control systems determine a building's safety, energy efficiency and comfort. They are key to ensuring sustainable, value-based construction of the future. As a manufacturer and installer of SHEV systems, we have complex trigger and control technologies at our disposal. As a system integrator, we are able to network all movable elements in a building envelope which perform SHEV and air conditioning functions. This is done via control panels. We integrate automation systems in the central building control system.

- Actuation of pneumatic and electric systems as well as drives for ventilation and SHEV units
- Design, installation and commissioning of the signalling sensors, the triggering units and the drives
- Routing of pneumatic and electric lines
- System integrator for third-party systems
- Interface with building control system

Everything for all project phases from a single source

From small control solutions to comprehensive building automation in large facilities, we provide all services in all of the relevant trades from a single source to ensure reliable implementation: From planning and designing the electrical and pneumatic control systems and components to their installation, commissioning and maintenance.

Control with our systems

- Smoke and heat exhaust ventilation systems
- Flap systems for natural ventilation
- Solar protection and light direction
- Sensor-controlled switching of electric lighting
- Temperature-dependent switching of air conditioning units

... and benefit from intelligent networking of building safety, energy efficiency and building comfort.





MAINTENANCE

Smoke and heat exhaust ventilation systems must trigger and respond quickly and correctly in case of fire. In other words, 100 percent reliability and functionality of the SHEV system. For this reason, regular maintenance is a must for SHEV system operators, as they are legally required to take any necessary measures to keep people out of danger in the event of a fire.

Key maintenance items:

- Examination of the overall system for modifications performed by the operator
- Test activation via CO₂ lines
- Testing of electrical wiring and accumulators
- Inspection of CO₂ cartridge filling levels
- Cleaning of SHEVs to remove dust, oily deposits and corrosion
- Complete activation of the SHEV system
- Transparent documentation of the work carried out

RENOVATION

Retrofitting of skylights with LAMILUX means: All processes take place transparently and in accordance with a customer and result-oriented methodology – from planning through to installation. We record the many parameters involved in a renovation using a detailed checklist and then implement the clearly regulated steps in practice and on time.

The overall LAMILUX renovation package:

- Survey by LAMILUX
- Clarification of requirements
- Drafting of a proposal
- Organisation of coordinated measures
- Assembly, including control technology
- Maintenance in accordance with the applicable guidelines
- Short renovation times
- Disassembly and assembly also during on-going production
- High level of planning and cost security



RENOVATION EXAMPLE DANTE GYMNASIUM, MUNICH

Before the renovation

Heat energy was shown to escape from the old glass roof. The supporting structure had become unstable and the partly opaque glass panes were only letting a small amount of daylight into the building.

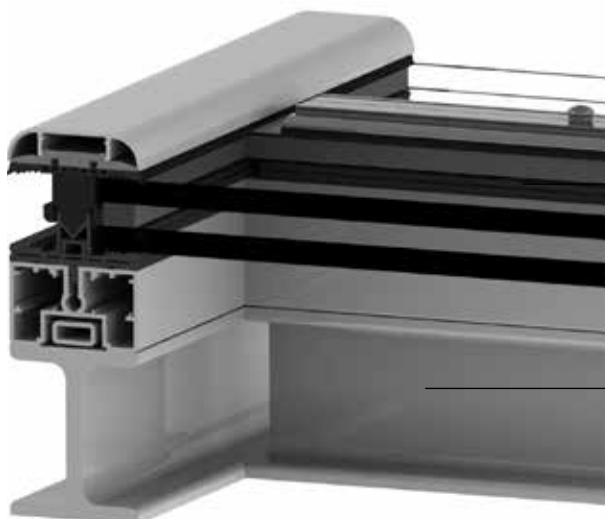
After the renovation

- Two hipped glass roofs with a surface inclination of 20° with dado wall panelling
- Coating of both constructions in customised RAL colours
- Option of daily ventilation with 24 LAMILUX Ventilation Flaps PR60
- Activation of the systems by means of 24 motor openers as flap drives for ventilation and SHEV function
- Installation of supply cable and ventilation control connection to the existing building control system

STEEL CONSTRUCTIONS WITH MIROTEC

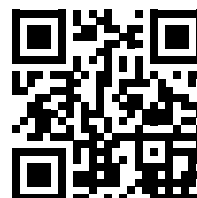
Large glass roofs can no longer support aluminium alone. This is where steel supporting constructions come into play – and we can offer you these as well: Our subsidiary Mirotec, which has its HQ in Wettringen (Germany), is a well-known European steel-glass construction specialist. Using state-of-the-art technology which makes it possible to create highly complex constructions via CAD, we are able to make your architectural ideas a reality.

In this regard, we attribute great importance to aesthetics, modernity and environmental compatibility which we believe are fundamental requirements of modern building constructions. Your biggest benefit from the LAMILUX and Mirotec combination: You reduce the number of interfaces you need by one and you hire two experts who have already implemented many projects together. You benefit from synergy effects which you will notice both in terms of time and cost.



LAMILUX Glass Roof PR60 with reduced profile height

Mirotec steel supporting structure



VENTILATION TECHNOLOGY WITH RODA

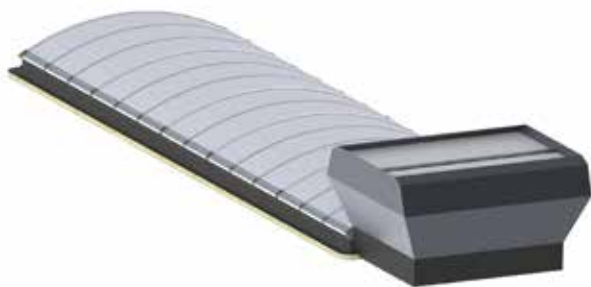
roda Licht- und Lufttechnik GmbH has been part of the LAMILUX Group since January 2018. The subsidiary's product portfolio covers four core competences: smoke and heat exhaust ventilation, industrial ventilation, daylight technology and translucent facade technology. roda takes care of all project planning up to on-site acceptance. In addition, roda offers maintenance for SHEV systems of all manufacturers as well as renovations within the scope of the four stated core competences.

LAMILUX and roda work together very closely in both development and sales. The benefit for you as a customer: One central contact, no interfaces, larger product portfolio and volume of services.

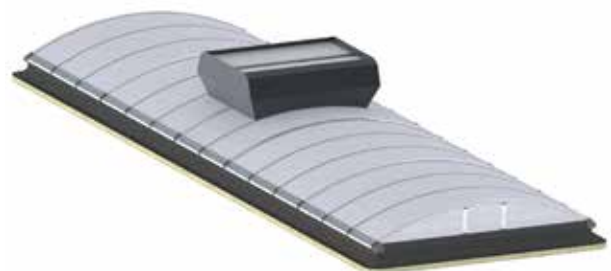
The first collaborative product is a thermally separated continuous rooflight with rainproof ventilation: The connection between the LAMILUX Continuous Rooflight B and the MEGAPHOENIX double flap from roda. The element guarantees all-weather ventilation through its weather-resistant side opening flaps. These open automatically as soon as the top-mounted flaps close when it starts to rain.

The MEGAPHOENIX can be mounted directly on the continuous rooflight frame with a continuous rooflight width of up to three metres. From a continuous rooflight width of more than three metres, the MEGAPHOENIX is mounted as a "rider" directly on the glazing bars of the continuous rooflight without interruptions.

A further collaborative solution is the integration of roda's louvered ventilators into the LAMILUX Continuous Rooflight S.



roda MEGAPHOENIX on the frame of the LAMILUX Continuous Rooflight B



roda MEGAPHOENIX on the glazing bar of the LAMILUX Continuous Rooflight B





Scan this to learn more about
LAMILUX skylights!



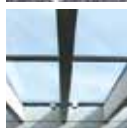
ROOFLIGHT F100



GLASS SKYLIGHT F100



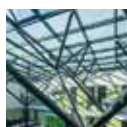
GLASS SKYLIGHT FE



GLASS ARCHITECTURE



RENOVATION



MIROTEC STEEL CONSTRUCTIONS



CONTINUOUS ROOFLIGHT B



CONTINUOUS ROOFLIGHT S



CONTINUOUS ROOFLIGHT W|R



SMOKE AND HEAT EXHAUST
VENTILATION SYSTEMS



BUILDING SMOKE EXTRACTION



RODA LIGHT AND AIR TECHNOLOGY

The technical data listed in this brochure correspond to the current status at the time of printing and are subject to change. Our technical specifications are based on calculations and supplier specifications, or have been determined by independent testing authorities within the scope of applicable standards.

Thermal transmission coefficients for our plastic glazing were calculated using the finite element method with reference values in accordance with DIN EN 673 for insulated glass. Taking into account practical experience and the specific characteristics of plastic, the temperature difference between the outer surfaces of the material was defined as 15 K. Functional values refer to test specimens and the dimensions used in testing only. We cannot provide any further guarantees of technical values. This particularly applies to changed installation conditions or if dimensions are re-measured on site.



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