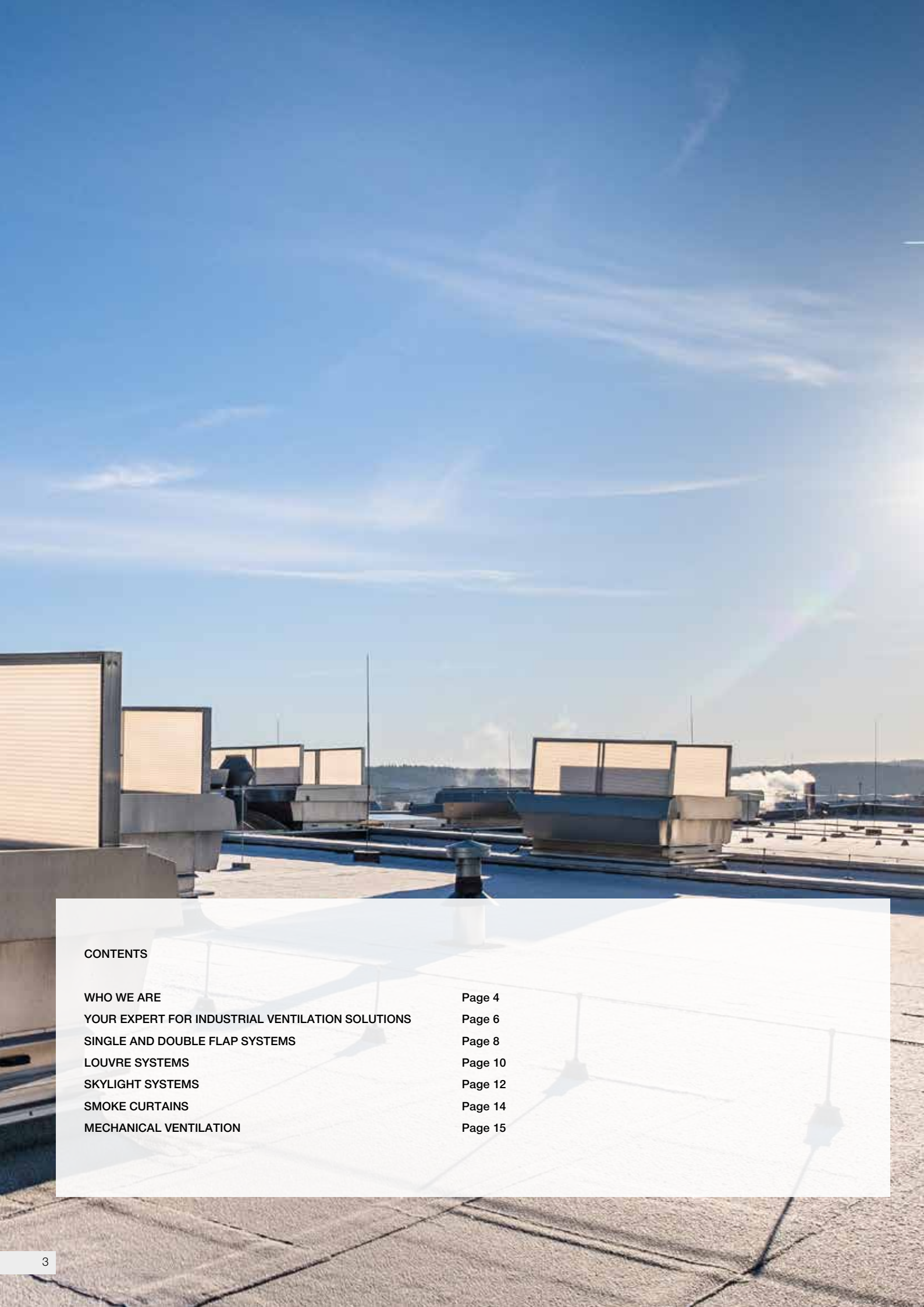
RODA

A LAMILUX GROUP COMPANY

SYSTEMS FOR: SMOKE AND HEAT EXHAUST VENTILATION (SHEV), INDOOR AIR AND DAYLIGHT

“For over 35 years, we have been working closely with our customers to develop made-to-order solutions for all kinds of requirements. In doing so, the satisfaction of our customers is especially close to our hearts. We want to inspire them with sophisticated products, creative solutions and personal service. That is why our daily work is characterised by adapting our technological innovations and our service precisely to your needs and concerns. Because you, the customer, are the central focus of our entrepreneurial thinking and actions. We are your problem solver. We are your reliable partner. We are your expert. ”

Dr Alexander Strunz
Managing Director roda



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WHO WE ARE

The well-being and safety of employees, the careful treatment of our environment, and the durability of buildings and machines are the focus for many companies.

At roda, we view ourselves as a competent partner at your side to achieve these goals. We save you time, bureaucratic effort, and money.

roda is a recognised manufacturer of:

- Natural smoke and heat exhaust ventilation units (NSHEV)
- Industrial ventilation
- Daylight technology
- Translucent façade technology

These systems combine daylight illumination, fresh air supply and removal as well as fire and smoke protection in buildings.

Roda has been part of the LAMILUX Group since 2018 and has around 1200 employees. LAMILUX is in its 4th generation as a medium-sized family business from Upper Franconia (Germany).

The LAMILUX Group is one of Europe's most established and most experienced manufacturers of skylight systems as well as smoke and heat exhaust ventilation units and is one of the leading international producers of fibre-reinforced composites.

These market positions have been achieved through technological innovation, quality awareness, flexibility with regard to meeting customer requirements and an appreciative approach to people and the environment, and are being continuously expanded.

Customised solutions for your requirements

Professional assembly

RODA – YOUR EXPERT FOR INDUSTRIAL VENTILATION SOLUTIONS

Depending on the industry, different tasks have to be taken into account when it comes to ventilation. From the special regulations in the food industry to the required criteria of a foundry to soundproofing in cinemas.

At roda, we view ourselves as problem solvers for all these requirements – for your benefit.

Through our decades of experience, we offer customised solutions for your building project and combine qualified fire protection with our natural ventilation solutions.

We build customer-specific units and are therefore able to respond to your needs and wishes accordingly.

Our systems not only reduce operating costs, but also increase productivity and the value of your property by improving people's well-being.

You can therefore benefit from our experience and expertise and take advantage of a comprehensive and optimal service. As a full-service provider, we accompany you from planning to final acceptance. From the new system to renovation.

Adaptation of lighting areas to requirements

Electricity and heating cost savings thanks to better insulation values

Satisfied employees thanks to better indoor climate

Adaptation of aeration and ventilation systems

Modern fire protection via SHEV systems

Increase in property value as a result of your investment

Complete renovation from a single source

Fall-through protection possible

Renovation of a shed roof

Problem solver for heat dissipation and air exchange in hot plants

SINGLE AND DOUBLE FLAP SYSTEMS

Mechanical ventilation systems often cause high acquisition and operating costs.

Double flap fans offer a more efficient solution. They combine 2 benefits at once: they provide fresh air through daily air exchange and, at the same time, fulfil the requirements for fire protection. Both with almost no energy expenditure. And in addition, if desired and required, the interior of the building can be supplied with sufficient daylight at the same time.

Double flap fans use thermal lift to ensure natural or free ventilation of buildings. This enables a high air volume exchange with the lowest energy requirement.

These physical laws are applied to natural smoke and heat exhaust ventilation units (NSHEV) to transport the heat load inside the building to the outside.

Ensure maximum success in daily ventilation:

- Temperature or pressure differences
- Thermal lift (chimney effect)
- Ventilation position of the flap systems of 90°

Can be used for daily ventilation in addition to its function as a SHEV system

Easy installation in all roof and wall constructions up to a slope of 90°

Its ventilation position of 90° offers a maximum ventilation cross-section

Withstands extreme weather conditions

Ridged roof continuous rooflight with integrated MEGAPHOENIX multi-purpose fans

PHOENIX double flap fan in arched continuous rooflight with fall-through protection grids

FIREFIGHTER double flap fan installed in a glass roof construction

PHOENIX single flap fan in a shed roof construction

LOUVRE SYSTEMS

A good indoor climate is made possible primarily by sufficient ventilation.

Fans, louvre windows and labyrinth fans are used to ensure this. Such louvre systems allow light to enter the building and are ideal for daily air exchange. In addition, they can – with appropriate control – function as natural smoke and heat exhaust ventilation units (NSHEV) or as a supply air system in case of fire.

The roda louvre systems consist of one or more aerodynamically shaped louvres, one above the other, which open as a pivot flap via a horizontal pivot axis.

While louvre fans are suitable for roof and wall installation, the labyrinth fan – as a high-performance fan – offers permanent air exchange and can be installed on all common roof constructions.

roda louvre systems are ideally suited for renovation and new construction and can be individually adapted to your building project.

Louvre systems offer the following advantages:

- Louvre windows integrate into the façade in such a way that they visually enhance the overall work
- Weather-protected ventilation can be provided with the aid of a rain sensor
- Can be used for daily ventilation, full ventilation with louvre position 90°
- Can be used as a SHEV system in addition to its daily ventilation function

Can be used for daily ventilation in addition to its function as a SHEV system

Easy installation in all roof and wall constructions up to a slope of 90°

Louvre windows integrate into the façade in such a way that they visually enhance the overall work

Withstands extreme weather conditions

SMOKEJET louvre fan in a shed roof construction

MULTIJET multi-purpose fan in arched continuous rooflight

AIRSTAR labyrinth fan

Louvre window in glass façade

SKYLIGHT SYSTEMS

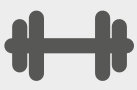
Daylight is essential for the human body and therefore as much of it as possible should be integrated into everyday life.

Whether continuous rooflights or skylights for industrial halls, large glass roofs for shopping centres, flat roof windows for schools or private houses and even skylights for Passivhaus designs. The advantage of our skylight systems: Not only can they be optimally used for natural ventilation, but they can also be used as SHEV units for smoke and heat extraction.

Various polycarbonate multi-wall panels are available for glazing roof and wall illumination systems that allow daylight in industrial buildings. The skylights in arched design (LAMILUX Continuous Rooflight B) and in ridged roof design (LAMILUX Continuous Rooflight S) and also shed glazing can be constructed as hard roofing.

Polycarbonate is a material that is ideally suited as a lighting element. It is characterised by high strength, impact resistance and stiffness. It is also resistant to many mineral acids, salts, oxidising agents and hydrocarbons.

The PC panels are coated for UV stabilisation. The light transmission of the PC panels changes only slightly due to weathering. Polycarbonate shows its particular advantages especially as a multi-wall panel.



Low weight due to polycarbonate multi-wall panels

Can also be implemented as hard roofing

Problem-free integration of NSHEVs and ventilation units

Natural daylight and glare-free room illumination

Arched continuous rooflight with a MEGAPHOENIX multi-purpose fan on Rodeo flange

Continuous rooflight with MEGAPHOENIX multi-purpose fan

Continuous rooflight renovation with built-in SMOKEJETlouvre fan

Renovation of 'Alter Postbahnhof' with integrated Continuous Rooflight W|R

SMOKE CURTAINS

If smoke compartments are not structurally ensured, they can be formed via smoke curtains. Smoke curtains counteract the lateral flow of smoke and hot, toxic fire gases: In large-area halls, no significant overpressure can build up under the roof in the initial phase of the fire. However, this is crucial for the effectiveness of a natural smoke and heat exhaust ventilation unit.

The rising smoke gases that develop spread under the roof. They cool down and flow back down in the form of smoke rolls, where they become a life-threatening hazard near the ground.

Smoke curtains divide a hall into several smoke compartments and thus prevent horizontal smoke spread in the roof space. In addition, the curtains are also used for targeted smoke control. This means that people can be safely evacuated from the building and the fire brigade can quickly locate and fight the source of the fire thanks to better visibility

MECHANICAL VENTILATION

In industrial buildings or production facilities where, in addition to warm air, mainly steam or exhaust gases are produced, regular intermittent ventilation is not always practicable.

Mechanical ventilation and heating ensure an optimal indoor climate here. This in turn ensures optimal working conditions. Accident, illness and absenteeism rates are demonstrably lower.

Mechanical ventilation systems can be implemented as decentralised or centralised supply air systems for ventilation and, in winter, also for heating. In both cases, the type of air routing is decisive for optimum operating success.

AIRSYSTEM is a duct system consisting of various modules that can be used for mechanical ventilation and heating of a production hall. A distinction is made between a supply air system, in which fresh air is transported to the workplace, and an exhaust air system, in which stale air is removed from the workplace. While the supply air system offers the possibility of tempering the supply air, the exhaust air system is about removing harmful vapours at a welding station, for example. For heat recovery, appropriate heat exchangers can be integrated into the AIRSYSTEM depending on requirements.

The DIGOVENT mechanical ventilation system brings fresh air to where people work, thereby enabling an optimal indoor climate in the work area. Due to the variable modular system, you receive made-to-order solutions for:

- Fresh air supply
- Exhaust air outlet
- Hot-air heating
- Recirculating air heating
- Hot air return
- Heat recovery.

Scan this to discover more about roda systems!


PHOENIX AND MEGAPHOENIX


FIREFIGHTER


SMOKEJET AND MULTIJET


SMOKE CURTAINS


LOUVRE WINDOWS


FAÇADE SYSTEMS


DAYLIGHT TECHNOLOGY


NATURAL AND MECHANICAL VENTILATION


MAINTENANCE


RENOVATION


MIROTEC GLASS AND METAL CONSTRUCTIONS


LAMILUX DAYLIGHT SYSTEMS

The technical data printed in this brochure was accurate when this brochure went to press and is subject to change without notice. Our technical specifications are based on calculations and supplier information or have been determined during testing by independent testing authorities within the scope of applicable standards.
Thermal transmittance coefficients for our composite glazing were calculated using the finite element method with reference values as per DIN EN 673 for insulated glass. Based on empirical values and specific characteristics of the plastics, a temperature vector of 15 K was defined as the vector between the outer surfaces of the material. 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 changes in installation locations, or if dimensions are re-measured on site.

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