








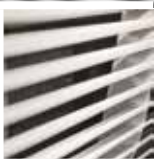






Products

For Heating, Cooling and Ventilation

Overview

KAMPMANN
Genau mein Klima.

Applications

- Hotels
- Offices and Commercial Buildings
- Showrooms and Sales Floors
- Retail Chains
- Commercial and Industrial Buildings
- Warehouses and Logistics Buildings
- Sports Halls and Indoor Riding Arenas
- Churches and Historical Buildings
- Nursery Schools and Schools
- Residential Buildings

Functions

- Heating
- Cooling
- Ventilation

Contents

Kampmann.
Genau mein Klima.

With over 720 employees at 14 locations around the world, Kampmann is one of the major players in the construction and building services industries. Kampmann systems for heating, cooling and ventilation are at the forefront of different market segments today.

Innovation and the ultimate quality standards in all divisions reinforce this success for the future as well.

Our customers attach importance to working with reliable partners rather than with interchangeable suppliers. We can state clearly and succinctly why Kampmann is such a reliable partner: **Genau mein Klima - „Precisely my kind of climate“**

Precisely:
The precision with which Kampmann adapts its solutions to customers‘ requirements.

My:
The individual approach Kampmann offers its customers.

Kind of climate:
The partnership-based atmosphere that customers and suppliers alike experience with Kampmann.

Consistently there.

Kampmann.
Genau mein Klima.

Wherever our customers and partners need us: we are there. Around the corner. Around the globe. On the web. We are there transforming today's challenges into tomorrow's solutions. We are there when the standards and norms of the future are defined. Down-to-earth, attentive, available at any time. And always ready to go the extra mile

Consistently cooperative.

Kampmann.
Genau mein Klima.

We believe that fairness is the best foundation for sustainable success. That a handshake can mean more than a 100-page contract. And that mutual respect comes from seeing eye-to-eye. This is the way we are – and this is how we interact, with our customers, with our suppliers, with each other: a cordial and sincere invitation to genuine partnership.

Consistently sophisticated.

Kampmann.
Genau mein Klima.

We leave nothing to chance. Including the future. We check and recheck. We enhance and optimise. And we don't let go until we are thoroughly satisfied. With a love for detail that is only rivalled by our passion for thinking in systems, we maintain and nurture our spirit of discovery and invention that drives us from good ideas to useful products.

Consistently solution-focused.

Kampmann.
Genau mein Klima.

A hotel needs a different climate than a retail outlet. And when the southern side of an office block needs to be cooled down, the north may still need warming up. Our customers' requirements are highly specific. So are our solutions. Which means that even the trickiest challenges have a predictable (and most satisfying) outcome: We turn complexity into clarity – and create the perfect climate.

Kampmann as a Family Company

One person – one product: Kampmann GmbH has continuously evolved since the company was set up in 1972.

With its vision and keen insight into future markets, Kampmann GmbH grew to become one of the leading international specialists in heating, cooling, ventilation and integrated building automation. The company is still family-owned and, now in its second generation, is managed by Hendrik Kampmann.

The company focuses on customer satisfaction. Some 56 external sales representatives are out on the road in Germany and across the globe for our customers. Together with staff in the 14 (inter-) national representative offices, they provide customers with qualified professional advice on site.

Our customer service team in the Lingen Service Centre supports customers with 16 internal employees. There is a further employee in our Munich and Graefenhainichen (Saxony-Anhalt) Service offices handling any problems that might arise. Germany-wide, we also maintain 50 Service Centres and, internationally, our customers can call upon Kampmann Customer Service at 28 Service Centres in twelve countries.

Company founder Heinrich Kampmann and the present Managing Director Hendrik Kampmann.

Corporate Group

Kampmann GmbH head office in Lingen (Ems)
- development, production, final assembly and sale of virtually all product groups
- Research & Development Centre
- approx. 62,000 m² production area

Traditionally, Kampmann's expertise has focused on series production with an extraordinary variety of options, as well as on visually attractive, custom-made, project-based solutions.

Outstandingly well-trained, skilled personnel in our three factories produce Kampmann-quality products for customers around the world. In addition to the company's headquarters in Lingen/Lower Saxony, housing administration and production, Kampmann GmbH has two further production sites in Saxony-Anhalt and in Łęczyca, Poland.

In the spring of 2011, Kampmann acquired a majority stake in NOVA Apparate GmbH, Donaueschingen. NOVA serves ventilation manufacturers with centralised units, while Kampmann serves heating contractors with decentralised units. Centralised and decentralised air conditioning and ventilation technology grow together.

Kampmann UK Ltd., established in 2013, is responsible for the sale and distribution of Kampmann HVAC products in the United Kingdom, Ireland, Australia, New Zealand, the USA and Canada.

Kampmann Eingangsmatten GmbH
- production of entrance matting and roll-up and linear grilles
- approx. 5,000 m² production area

KAMPMANN Polska Sp. z o. o.
- production of unfinished and finished products for heating, cooling and ventilation systems
- in addition to finished products for the regional market, a large proportion of the production output is sent to the German main factory in Lingen for further processing
- approx. 8,300 m² production area

NOVA
KLIMAGERÄTE
GENAU MEIN KLIMA.

Nova-klima.de

Research & Development Centre

The company's own Research & Development Centre is one of the most modern of its kind.

The R & D Centre (FEC) enables the company to

- develop new standard products
- continually improve its products
- undertake applied research
- provide detailed analysis of the units to be tested
- undertake standard tests.

Major investment requires performance that can be tested. That is what we offer our customers in our in-house R & D Centre (FEC) adjacent to our headquarters in Lingen. Built in June 2008, with an investment of approx. four million €, it is one of the most modern facilities of its type in Europe.

The multifunctional design of the building with a floor area of approx. 1,200 m² houses an air flow laboratory, a multi-purpose laboratory and a sound chamber.

The technically state of the art fit-out of the laboratory, which also houses a test chamber, two climate simulation units and a climate chamber, is designed to meet customers' ever-changing demands:

- functional demonstration and presentation of products
- product testing in real installation situations
- reliable technical data and proof of outputs
- continuous new developments and product enhancements.

We work closely with leading scientific research institutions, universities and test laboratories. The focus of our work is on sustainable products that operate energy-efficiently and have a long service life, with adaptable operation and manufactured using recyclable materials.

The company's own Research & Development Centre (FEC) at its headquarters in Lingen (Ems), Germany.

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Kampmann Online

You will find the best solutions and best support for your everyday business at Kampmann.de.

- **Products**
  A wealth of filter options quickly and easily limits the Kampmann product range. In addition to the extensive product information, the product configurator provides for configuration even with limited available data, from the product group to final article number.
- **Solutions**
  Differentiated by building and type of use, designers obtain tailor-made solutions and planning-relevant information, such as technical documentation or current guidelines.
- **Service**
  Kampmann is always on hand in an advisory capacity to ensure that your project runs seamlessly throughout all stages of your project – from efficiency calculations on green building projects to on-site support.

Social Media

- **Xing.com/companies/kampmanngmbhlingen**
- **Twitter.com/kampmanngmbh**
- **Facebook.com/kampmann.de**
- **Youtube.com/user/kampmannlingen**

1 Trench Heating

Trench Heating

Indoor climate from the floor

Tested acc. to: **EN 16430 March 2015** Kampmann

Often heating and cooling units are visually unacceptable in front of the windows of modern commercial buildings. At the same time, demands are growing on the part of the users for improved air conditioning.

The wide range of products from the Katherm trench heating product line always offers the perfect solution. As the market leader in this segment, Kampmann offers a wide range of designs: from natural convection, different fan-assisted designs to special solutions, like displacement ventilation.

Kampmann offers a trench system with outdoor supply air/recirculating air function for use in raised floors. An integrated secondary air fan enables the room air to be rapidly heated and cooled in addition to the supply of heated and cooled outdoor supply air.

The product group takes into account installations that impact on the design of the building, for instance by offering an extensive range of design grilles with different bar profiles, colours and materials. Moreover, the most diverse trench shapes are also possible. Thanks to the Katherm modular system, this can largely be adjusted directly on site.

In terms of control, the trench heating system can easily be integrated into modern BMS systems.

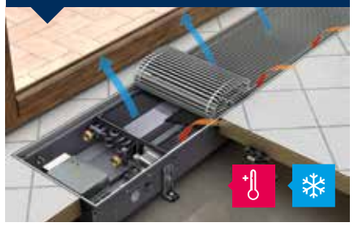
EC technology guarantees maximum energy efficiency. EC fans can be operated on-demand infinitely variably within a low fan speed range, even at low air volumes, with intelligent, integrated electronics and thus energy-efficiently. Low fan speeds have a positive effect on noise levels in areas, like offices, where the noise levels lie far below the audible threshold or the usual measuring range.

Overview

1. Katherm NK
2. Katherm QK
3. Katherm HK
4. Katherm QL
5. Katherm ID
6. Katherm NE
7. Kavent BA plus

Trench Heating

Overview

	Katherm NK	Katherm QK	Katherm HK
			
	Article Group 1.45	**Article Group 1.42**	**Article Group 1.43**
Operation	• natural convection • heating with LPHW	• cross-flow fan-assisted convection • heating with LPHW • EC fan • KaControl technology	• cross-flow fan-assisted convection • heating with LPHW • cooling with CHW • EC fan • 2 or 4-pipe system • KaControl technology
Properties	**Heat output** [1] 78 – 5,590 W **Trench height** 92, 120, 150, 200 mm **Trench length** 800 – 5,000 mm **Trench width** 137, 182, 232, 300, 380 mm	**Heat output** [2] 359 – 4,961 W **Trench height** 112 mm **Trench length** 1,000 – 3,200 mm **Trench width** 182, 207, 232 mm	**Heat output** [1] 923 – 9,223 W **Cooling output** [3] 230 – 1,507 W **Trench height** 130, 190 mm **Trench length** 915, 1,200, 1,700, 2,000, 2,500, 3,000 mm (height 130 mm)/1,250, 2,000, 2,750 mm (height 190 mm) **Trench width** 320 (height 130 mm)/ 340 (height 190 mm)
Product features	• performance-optimised • shallower depths combined with high outputs • fully adaptable to the building contours • accessory Katherm modular system	• whisper-quiet EC technology • shallower depths and high outputs • fully adaptable to the building contours • accessory Katherm modular system	• heating and cooling available as a 2 and 4-pipe system • optionally available with supply air connection • EC fan, low noise, energy-efficient • accessory Katherm modular system

[1] with LPHW 75/65 °C, RT = 20 °C
[2] with LPHW 75/65 °C, RT = 20 °C, at 60% fan speed
[3] with CHW 16/18 °C, RT = 27 °C, 48% relative humidity, at 60% fan speed

	Katherm QL	Katherm ID	Katherm NE	Kavent BA plus
				
	Article Group 1.41	**Article Group 2.41**	**Article Group 2.45**	**Article Group 2.20**
Operation	• targeted supply of conditioned air (displacement air) • low-turbulence room ventilation with low discharge speed • additional heating with LPHW	• decentralised supplementary cooling and heating in conjunction with a central ventilation unit (induction) • no motors or moving parts • ideal combined with thermal mass activation to ventilate rooms • 2 or 4-pipe systems	• heating with electric heating element • natural convection • fast heat-up • virtually silent operation	• decentralised façade ventilation unit for heating and cooling • modular indoor units: outdoor air, secondary air, empty trench • EC radial fan, additional EC tangential fan with secondary air mode • F7 air filter
Properties	**Heat output** [2] 381 – 801 W/m **Trench height** 130, 180, 230 mm **Trench length** project-related; minimum length 1,100 mm **Trench width** 272, 310, 340, 400, 420 mm	**Heat output** [4] 1.059 – 3.893 W **Cooling output** [3] 180 – 1.187 W **Trench height** 180 mm **Trench length** project-based **Trench width** 272, 340 mm	**Heat output** [1] 250 – 880 W **Trench height** 150 mm **Trench length** 750, 1.150, 1.550, 1.950 mm **Trench width** 207 mm	**Heat output** 1.450 – 2.430 W [5] 860 – 1.430 W [6] 1.950 – 2.800 W [7] **Cooling output** 270 – 500 W [8] 210 – 329 W [9] 435 – 635 W [10] **Trench height/length** 195 mm/NP 1.100 mm **Trench width** 340 mm (visible width) 645 mm (overall width)
Product features	• high-output convector for screening external glazing • for the targeted supply of conditioned displacement air • effective and low-turbulence stratified ventilation	• extremely silent by means of flow-optimised nozzles • low investment and maintenance costs • supply air with post-cooling/heating by induction	• 2-stage safety switch • integrated output control • room thermostat or BMS control • specially designed heating elements	• LPHW/CHW heat exchanger for 2- or 4-pipe systems • EC radial fan, additional EC tangential fan • separate control of external and recirculating air fan • simple maintenance by dismantable modules • ideal for use in raised and cavity floors

[1] Max. heat output | [2] with LPHW 75/65 °C, EAT = 20 °C, without supply air; 4-pipe; 20 °C primary air temperature | [3] with CHW 16/18 °C, EAT = 26 °C, 50% relative humidity; 4-pipe; 18 °C primary air temperature | [4] with LPHW 75/65°C, EAT = 20 °C, with supply air; 4-pipe; 20 °C primary air temperature | [5] with LPHW 75/65°C, $t_{outdoor}$ = -12 °C, outdoor air mode | [6] with LPHW 75/65 °C, t_{indoor} = 22 °C, recirculating air mode | [7] with LPHW 75/65 °C, $t_{outdoor}$ = -12 °C, t_{indoor} = 22 °C, outdoor/recirculating air mode; secondary air rate 80 m³/h | [8] with CHW 17/19 °C, $t_{outdoor}$ = 32 °C, 40% relative humidity; outdoor air mode | [9] with CHW 17/19 °C, t_{indoor} = 26 °C, 50% relative humidity; recirculating air mode [10] with CHW 17/19 °C, $t_{outdoor}$ = 32 °C, 40% relative humidity; t_{indoor} = 26 °C, 50% relative humidity, outdoor/recirculating air mode; secondary air rate 80 m³/h

Kampmann

Trench Heating

At a glance

HK

Heating and cooling as a 2-pipe and 4-pipe system.

HK

Trench heating for heating or cooling. EC cross-flow fan convection, whisper-quiet and energy-efficient.

ID

Trench heater as induction trench. Supply of primary air and induction of secondary air.

QK

Whisper-quiet EC technology. Made to measure.

QK

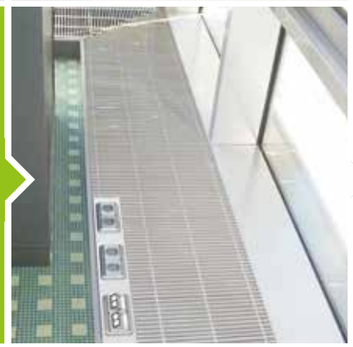
Trench heating with EC cross-flow fan convection. Optimised for ultra low water temperatures.

NE

Natural convection trench heating.

NE

With electrical heating element.



NK

Minimal dimensions, maximum output.

NK

Natural convection all-purpose, individual, made-to-measure.

Kavent BA plus

Decentralised façade ventilation system. Trench air conditioning system with outdoor supply air/ recirculating air function.

QL

Trench heating with integral displacement ventilation system. For draught-free displacement ventilation.

2 Perimeter Heating

Perimeter Heating

Multi-functional, durable, highly responsive

Uncased or cased, wall-mounted or free-standing encased convectors: Kampmann convectors meet the most exacting design requirements. They blend seamlessly into the interior style both in residential and commercial buildings.

Kampmann convectors emit their high heat output when encased, with the additional benefit of blending harmoniously into the interior design.

PowerKon + W and PowerKon + F encased convectors with PowerKon copper/aluminium heat exchangers are the functional and value-for-money alternative for effective heating. They stand out on account of their consistent design and compact construction with minimal heights and widths. The low water content ensures short heating-up times and precise controllability.

Innovative Kampmann PowerKon heat exchangers with corrugated fins can be used as low-temperature heaters with fan-assistance in PowerKon NT units. This heater is specifically designed for use in low water temperature systems and for maximum output within a compact space. EC technology is also used with this model.

The SlimKon façade system creates comfort in front of glazing, preventing the ingress of cold air directly in front of windows like almost no other heating system. With purely convective heating, SlimKon systematically and unobtrusively blends into the overall look of the façade.

Overview

1

2

3

4

5

1. PowerKon NT
2. PowerKon + F
3. PowerKon + W
4. Steel Convector
5. SlimKon

Perimeter Heating

Overview

PowerKon NT

Article Group 1.28

Operation

- heating with LPHW
- cross-flow fan-assisted convection
- dry cooling
- EC fan
- KaControl technology

Properties

Heat output [1]
400 – 1,443 W
Cooling output [2]
142 – 498 W

Height
500 mm
Length
750 – 2,750 mm
Depth
120 mm

Air outlet
- linear grille

Colour
- standard RAL 9016,
- other colours on request

Applications

- ideal for combining with heat pumps especially in ultra low water temperature systems
- suitable for new buildings and refurbishment projects

PowerKon + F

Article Group 1.26

Operation

- heating with LPHW
- natural convection

Properties

Heat output [3]
222 – 3,676 W

Height
80, 130 mm
Length
600 – 2,600 mm
Depth
130, 180, 230 mm

Air outlet
- linear grille with C-shaped profile

Colour
- standard RAL 9016,
- other colours on request

Applications

- functional, value-for-money model for the visually appealing use of convectors, for instance for installation along the façade of the building
- free-standing installation

PowerKon + W

Article Group 1.26

Operation

- heating with LPHW
- natural convection

Properties

Heat output [3]
176 – 6,768 W

Height
250, 400, 550, 700 mm
Length
600 – 2,600 mm (2,400 mm to depth 220 mm)
Depth
70, 120, 170, 220 mm

Air outlet
- perforated profile
- linear grille with C-shaped profile

Colour
- standard RAL 9016,
- other colours on request

Applications

- for the encased use of convectors
- available in two different design models
- wall-mounted

Steel Convector

Article Group 1.10

Operation

- heating with LPHW
- natural convection

Properties

Heat output [1]
149 – 16,023 W (bei H_V = 500 mm)

Height
70, 150 mm
Length
500 – 5,000 mm
Depth
50, 100, 150, 200, 250, 300 mm

Air outlet
- individual air outlet

Colour
- galvanised

Applications

- for use in convector casings or for installation in a trench: the professional solution!

SlimKon façade heating system

Article Group 1.22

Operation

- heating with LPHW
- natural convection

Properties

Heat output [1]
186 – 308 W/m

Height
60 mm
Length
up to max. 3,000 mm (as a single section)
Depth
90, 115, 140 mm

Air outlet
- perforated cover with square or rectangular perforations

Colour
- standard RAL 9016,
- other colours on request

Applications

- façade heating system for the effective screening of cold air in front of glazing
- can be incorporated inconspicuously into the look of the façade

[1] with LPHW 45/40 °C, RT = 20 °C, sound pressure level 28 dB(A)
[2] with CHW 16/19 °C, RT = 27 °C (only dry cooling, without production of condensate), sound pressure level of 28 dB(A)
[3] with LPHW 75/65 °C, EAT = 20 °C

[1] with LPHW 75/65 °C, RT = 20 °C

Kampmann

Perimeter Heating

At a glance

PowerKon + W

The wall-mounted encased model with PowerKon heat exchanger.

PowerKon + W

Wall-mounted convector for low water temperatures.

Steel Convector

Multifunctional, concealed heaters, galvanised steel. High-outputs in customer casings.

SlimKon

Façade heating system for greater comfort in front of glazing.

PowerKon NT

The ultra low-temperature heater with fan assistance. Heating with minimal energy.

PowerKon + F

Free-standing convector for use with low water temperatures.

PowerKon + F

The free-standing encased model with PowerKon heat exchanger.

SlimKon

Effective cold air screening.

3 Design Grilles

Design Grilles

For modern buildings

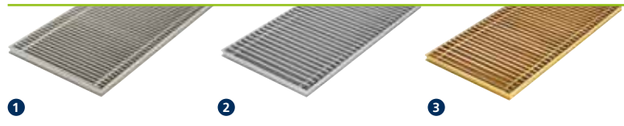
For some years now, the trend in modern architecture has been to actively incorporate required operating systems into the overall interior design. Kampmann design grilles take this development into account.

The wide range of materials and colours open up numerous design options. In terms of metal, the available finishes range from aluminium to brass and stainless steel. Oak, beech, maple and merbau offer four wooden grilles to create an individual homely impression.

Thanks to the many projects that Kampmann has already completed, we are able to call on an extensive stock of special solutions, like different angles, curves, adjustments to pass around columns and polygonal connections, recesses, mitred corners and many more.

Kampmann will take care of everything, from site measurements to delivery.

Overview



1. Optiline Roll-up Grilles
2. Standard Roll-up Grilles
3. Brass Roll-up Grilles
4. Keyline Roll-up Grilles
5. Wooden Roll-up Grilles

Kampmann

Design Grilles

Overview

Optiline Roll-up Grilles

Article Group 1.30

Colours *)

Aluminium
- natural anodised E6/EV1
- brass anodised E6/EV3
- bronze anodised E6/C34
- black anodised E6/C35
- light bronze finish E6/C31
- basalt grey coated (DB 703)
- white coated

Stainless Steel
- natural
- polished

Brass
- natural CuZn 44

Properties

Profiles
- double T-profile in aluminium, brass bar spacing 9 mm
- double T-profile, stainless steel bar spacing 10.5 mm
- height: 18 mm

Free area
- approx. 65%

Special features
- Optiline grilles stand out on account of their slim bar profiles whilst retaining a narrow bar spacing. This creates an attractive appearance whilst ensuring the correct free area in terms of air flow.
- both sides of the grille can be used

Standard Roll-up Grilles

Article Group 1.30

Aluminium
- natural anodised E6/EV1
- brass anodised E6/EV3
- bronze anodised E6/C34
- light bronze finish E6/C31

Profiles
- double T-profile bar spacing 12 mm, 17 mm
- height: 19.5 mm

Free area
- approx. 60% and 70%

- the all-purpose and durable grille
- aluminium grilles are ultra-versatile and available with two different bar spacings

Brass Roll-up Grilles

Article Group 1.30

Brass
- natural CuZn 37

Profiles
- hollow rectangular profile bar spacing 12 mm, 15 mm
- height: 18 mm

Free area
- approx. 60% and 70%

- warm colours and high-grade material: Brass grilles complete the design of sophisticated homes and offices

*) The colours of the grilles shown here may be distorted in printing and thus do not represent an exact reproduction of the original colour.

Keyline Roll-up Grilles

Article Group 1.30

Colours *)

Aluminium
- natural anodised E6/EV1
- brass anodised E6/EV3
- bronze anodised E6/C34
- light bronze finish E6/C31

Properties

Profiles
- droplet profile bar spacing 10.5 mm
- height: 18 mm

Free area
- approx. 64%

Special features
- perfect unit in terms of appearance, function and design: Keyline roll-up grilles create feature elements in contemporary spaces and sophisticated offices

Wooden Roll-up Grilles

Article Group 1.30

Oak
- natural lacquered
- oiled

Beech
- natural lacquered
- oiled

Maple
- natural lacquered
- oiled

Merbau
- natural lacquered
- oiled

Properties

Profiles
- solid wooden profile bar spacing 12, 15 mm
- height: 18 mm

Free area
- approx. 60%

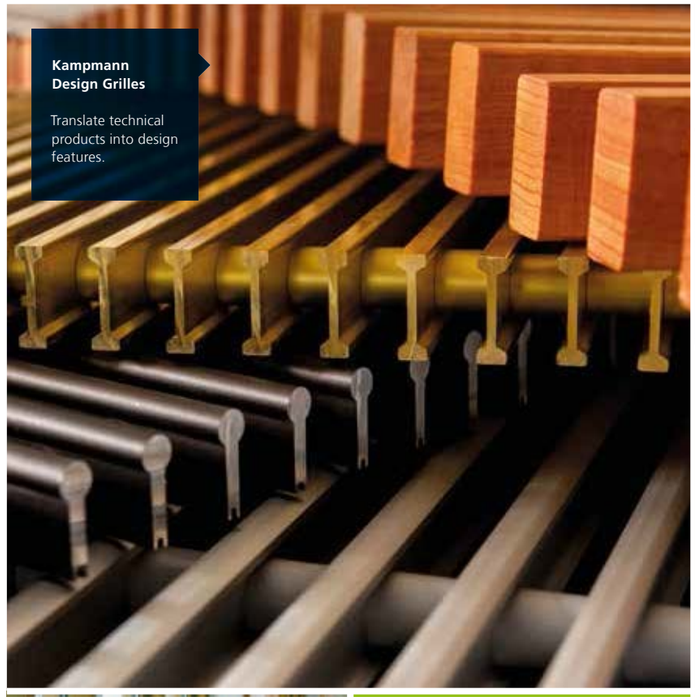
- wooden roll-up grilles accentuate a warm and homely atmosphere indoors

*) The colours of the grilles shown here may be distorted in printing and thus do not represent an exact reproduction of the original colour.

Kampmann

Design Grilles

At a glance



Kampmann Design Grilles

Translate technical products into design features.

Optiline Roll-up Grilles

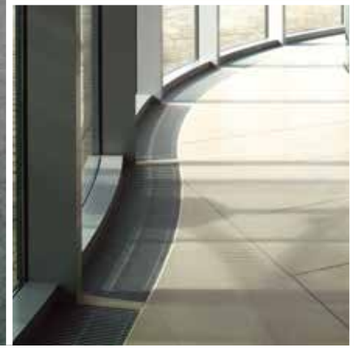
Ultra-elegant narrow-spaced air outlets.

Keyline Roll-up Grilles

The design grilles.

Brass Roll-up Grilles

The luxury floor grilles.



Aluminium, anodised

Solid underfoot for (almost) every application. Extensive range of colours.

Standard Roll-up Grilles

The standard floor grilles.

Wooden Roll-up Grilles

Warm and homely – decorative wooden covers.

Wood

The natural alternative for office and residential use.

4

Door Air Curtains

Door Air Curtains

Keep the cold outside!

Kampmann commercial and industrial door air curtains offer optimum screening for air conditioned interior spaces. They reliably do their job wherever outdoor and indoor climates meet.

Thanks to their screening effect across open doors, door air curtains provide a comfortable interior environment during the colder months. The noticeable warm air flow creates a rapid sense of comfort especially when the outside temperatures drop.

Door air curtains also have a number of additional benefits:

- minimal energy losses by screening cold outside air in winter
- fewer draughts. Workstations can be arranged closer to the entrance area, thereby maximising the use of the floor space
- in summer they aid air conditioning systems when operated without heat, reducing the ingress of warm outside air, saving on cooling output and energy costs
- accumulated heat from the ceiling area is utilised for air screening
- versatile use in retail outlets of all kinds, malls and public buildings

ProtecTor is unique in the industrial heating sector: this door air curtain operates with a warm and ambient air stream, saving up to 38% energy compared to conventional systems. The discharge nozzles concentrate the air stream for targeted output.

Overview

1. UniLine 260
2. Cassette UniLine
3. Vario
4. Tandem 300
5. Tandem 385
6. ProtecTor

Kampmann

Door Air Curtains

Overview

UniLine 260

Article Group 2.53

Features

- value-for-money design
- unit and casing form a compact unit

Properties

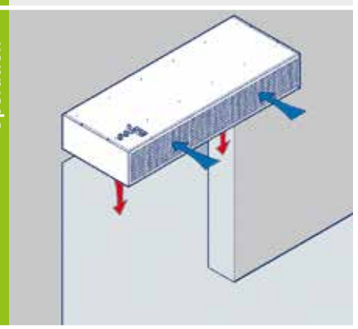
Heat output [1]
- 6.7 – 44.2 kW

Air volume
- 600 – 5,330 m³/h

Max. discharge height [2]
- 2.3 – 3.0 m

Unit lengths
- 1.0 – 3.0 m

Operation



Applications

- DIY stores
- supermarkets
- all kinds of retail outlets

Cassette UniLine

Article Group 2.53

Features

- value-for-money design
- unit and casing form a compact unit
- specifically designed for ceiling grids

Properties

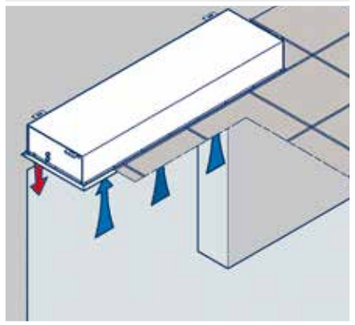
Heat output [1]
- 6.7 – 33.9 kW

Air volume
- 600 – 4,000 m³/h

Max. discharge height [2]
- 2.3 – 3.0 m

Unit lengths
- 1.0 – 2.5 m

Operation



Applications

- DIY stores
- supermarkets
- all kinds of retail outlets
- educational buildings

Vario

Article Group 1.51

Features

- attractive casing for ultra-simple installation
- modular design is also possible

Properties

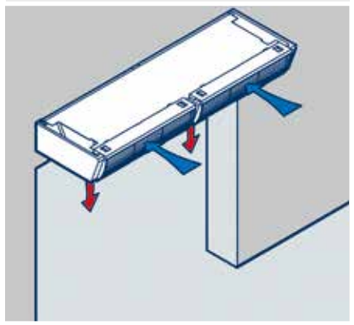
Heat output [1]
- 6.7 – 33.9 kW

Air volume
- 600 – 4,000 m³/h

Max. discharge height [2]
- 2.3 – 3.0 m

Unit lengths
- 1.0 – 2.5 m

Operation



Applications

- all kinds of retail outlets, department stores
- supermarkets, offices
- restaurants and hotels
- public buildings

Tandem 300

Article Group 2.51

Features

- an additional fan group generates an unheated ambient air stream, for more effective, approx. 38% energy saving

Properties

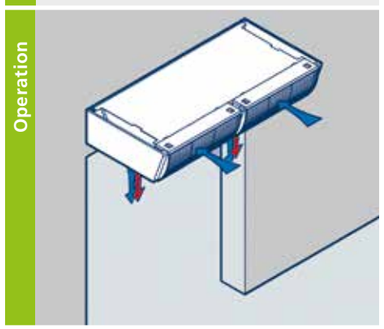
Heat output [1]
- 4.1 – 26.8 kW

Air volume
- 840 – 6,120 m³/h

Max. discharge height [2]
- 2.7 – 3.4 m

Unit lengths
- 1.0 – 3.0 m

Operation



Applications

- all kinds of retail outlets, department stores
- supermarkets, offices
- restaurants and hotels
- public buildings
- energy saving applications

Tandem 385

Article Group 2.52

Features

- an additional fan group generates an unheated ambient air stream, for more effective, approx. 38% energy saving

Properties

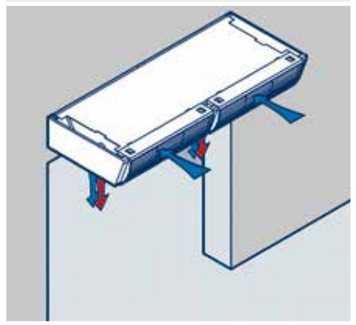
Heat output [1]
- 9.6 – 33.9 kW

Air volume
- 1,890 – 8,180 m³/h

Max. discharge height [2]
- 3.5 – 4.0 m

Unit lengths
- 1.5 – 2.5 m

Operation



Applications

- all kinds of retail outlets, department stores
- supermarkets, offices
- restaurants and hotels
- public buildings
- energy saving applications

ProtecTor

Article Group 2.55

Features

- unique in the industrial heating sector: this industrial door air curtain operates with an ambient air and heated air stream and saves up to 38% energy!

Properties

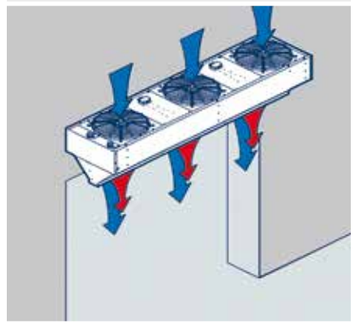
Heat output [1]
- 50.0 – 167.2 kW

Air volume
- 11,000 – 35,800 m³/h

Max. discharge height and/or discharge width [2]
- 3.5 – 4.5 m

Unit lengths
- 2.0 – 5.0 m

Operation



Applications

- industrial heating, ideal across the entrances to industrial premises, workshops, warehouses etc.
- energy saving applications

[1] LPHW 75/65 °C and EAT = 20 °C
[2] at low to medium pressure, requirements and conditions

[1] LPHW 75/65 °C and EAT = 20 °C
[2] at low to medium pressure, requirements and conditions

Kampmann

Door Air Curtains

At a glance

Vario

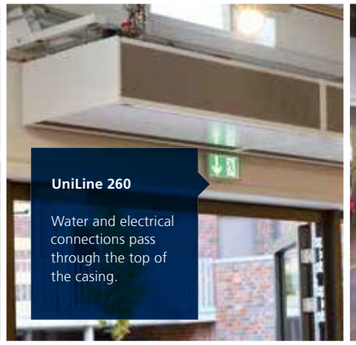
Modular casing concept. Installation in suspended ceilings with standard components.

Vario

Door air curtains for various installation configurations. Available with a range of casings.

UniLine 260

Door air curtain comes complete with casing.

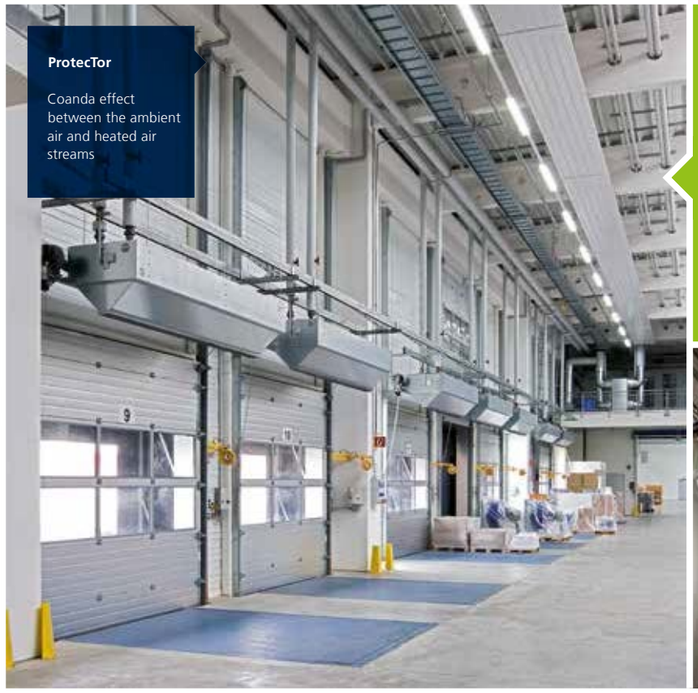


UniLine 260

Water and electrical connections pass through the top of the casing.

Tandem 300/385

Door air curtains with Tandem technology. Ambient air and heated air stream for effective cold air screening.



ProtecTor

Coanda effect between the ambient air and heated air streams

ProtecTor

Door air curtain with ambient air and heated air streams for effective screening.

Cassette UniLine

Cassette door air curtains. For specific use in ceiling grids.

Cassette UniLine

Filters can be changed with ease without the need for a tool.

5
Unit Heaters

Unit Heaters

Top-class performance

Top-level heating, cooling and ventilation is crucial in large expansive spaces.

Kampmann comes into its own with its wide range of unit heaters. Whether wall-mounted or ceiling-mounted units, with heat exchangers for water or steam or thermal oil, fired, recirculating air or mixed air – the large range of units provides the optimum solution for every possible application.

Unit heaters are particularly suitable for optimum, decentralised heating and ventilation of the following types of building:

- production halls
- warehouses
- industrial or commercial workshops
- retail stores
- greenhouses
- buildings with connection to district heating systems or with high temperature differences (barracks, etc.)
- areas at risk of explosion
- buildings with steam heating systems

The new KaCompact ventilation unit provides heat recovery and has been specially designed for supply air exchange in large spaces. Combined with Kampmann unit heaters, it exchanges 'used' room air and pre-heats cold outdoor supply air. Energy is recovered from the exhaust air and transferred to the supply air in the integral rotation heat exchanger. The room is heated and cooled independently of the decentralised units. The KaCompact complies with heat recovery class H1 in line with DIN EN 13053.

EC technology: The unit heaters TOP, Ultra and Planeck are now also available with energy-efficient EC technology.

Overview


1


2


3


4


5


6

1. TIP
2. TOP
3. Ultra
4. Planeck
5. Agrar TOP
6. KaCompact

Kampmann

Unit Heaters

Overview

TIP

Article Group 1.57

Properties

Casing
- fully manufactured from galvanised sheet steel

Fan
- 2-stage, three-phase sickle blade whisper-quiet fan
- 1-stage, AC-sickle blade, whisper-quiet 230 V/50 Hz

Heat exchanger
- copper/aluminium
- suitable for LPHW

Installation options
- wall- or ceiling-mounted

Equipment
- simple attachment of discharge-side accessories, like the two-row louvre and the four-way diffuser

Applications
- production plants, workshops and assembly halls
- industrial and trade workshops

TOP

Article Group 1.53

Properties

Casing
- fully manufactured from galvanised sheet steel

Fan
- 1-stage, AC-sickle blade, whisper-quiet 230 V/50 Hz
- 2-stage, three-phase sickle blade, whisper-quiet 400 V/50 Hz
- 2-stage, three-phase wide blade 400 V/50 Hz, explosion-proof
- infinitely variable speed control
- EC fans

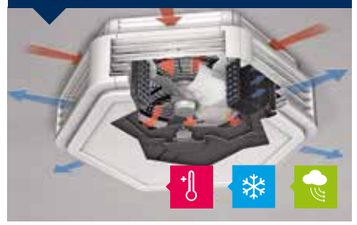
Heat exchanger
- copper/aluminium (suitable for LPHW)
- galvanised steel (suitable for LPHW)
- galvanised steel for use with steam
- galvanised steel, cross-flow

Installation options
- wall- or ceiling-mounted

Equipment
- extensive accessories, modular system for simple adaptation to technical and structural requirements
- KaControl technology

Applications
- production halls, warehouses
- buildings with connections to district heating systems or with high temperature spreads
- areas at risk of explosion
- buildings with steam heating systems

Ultra



Article Group 1.54

Properties

Casing
- contemporary housing
- with 6-sided air outlets, each with six pre-set defined adjustment angles

Fan
- axial fans, sickle blade, 1 or 2-stage
- diagonal whisper-quiet fans with increased pressure with Series 97 for mixed air/fresh air
- infinitely variable speed control
- EC fans

Heat exchanger
- circular design for maximum output from minimal dimensions
- copper pipes with aluminium fins
- suitable for LPHW

Installation options
- ceiling installation

Equipment
- all units in the range come complete with fitted bracket set and are available with a range of controls
- KaControl technology

Applications
- supermarkets, retail stores or exhibitions
- for recirculating and mixed air operation in heating or cooling mode with an identical appearance

Planeck

Article Group 1.64

Properties

Casing
- ceiling cassette unit
- self-supporting, fully manufactured from galvanised sheet steel
- discharge on three sides, ideal for installation close to walls
- optionally with motorised adjustable louvre

Fan
- airflow-optimised plastic radial fan
- 1-stage AC
- infinitely variable speed control
- EC fans

Heat exchanger
- horse shoe-shaped heat exchanger for the supply of fresh air from the side
- hollow copper pipes with aluminium fins
- suitable for LPHW

Installation options
- installation within a suspended ceiling

Equipment
- mixed air unit with integrated mixed air damper and optional fresh air induction components
- flange on all sides for interfacing with the suspended ceiling
- KaControl technology

Applications
- showrooms and shop floors
- retail chains with ceiling heights of approx. 2.3 - 3.3 m
- for recirculating and mixed air operation in heating or cooling mode with an identical appearance

Agrar TOP

Article Group 4.53

Properties

Casing
- fully manufactured from galvanised sheet steel

Fan
- 2-stage sickle blade whisper-quiet fan 400 V/50 Hz
- ideal for use in poultry sheds

Heat exchanger
- galvanised steel
- with 4.4 mm fin spacing

Installation options
- wall- or ceiling-mounted

Equipment
- units have factory-fitted, hinged air outlet for ease of cleaning

Applications
- for space heating within agriculture/poultry farms

KaCompact

Article Group 4.52

Properties

Casing
- insulated double-skin panels with thermal and acoustic properties and for the prevention of condensation

Fan
- infinitely variable speed control EC fans

Heat exchanger
- regenerative heat recovery thanks highly-efficient rotary heat exchanger
- consistently good heat recovery even with low outside temperatures

Installation options
- outdoor installation for flat or pitched roofs

Equipment
- available in two sizes
- controllable heat recovery by infinitely variable speed control of the rotor for supply air temperature control
- KaControl technology
- multiple KaCompact units can be cascaded with one controller

Applications
- commercial and industrial buildings
- warehouse and logistics buildings
- showrooms and sales floors
- to combine centralised heat recovery with decentralised temperature management by unit heaters

Kampmann

Unit Heaters

At a glance

Ultra

Ceiling unit for heating, cooling, ventilation within architectural interiors. Meets the most exacting demands in terms of design and comfort.

Ultra

Hexagonal housing design for optimum air distribution when heating and cooling.

TIP

Wall- and ceiling-mounted unit heater. The simple solution.

TOP

Wall- and ceiling-mounted unit heater. The warm air solution for almost all requirements.

KaCompact

Ventilation unit with heat recovery to replace polluted room air with outdoor supply air.

Planeck

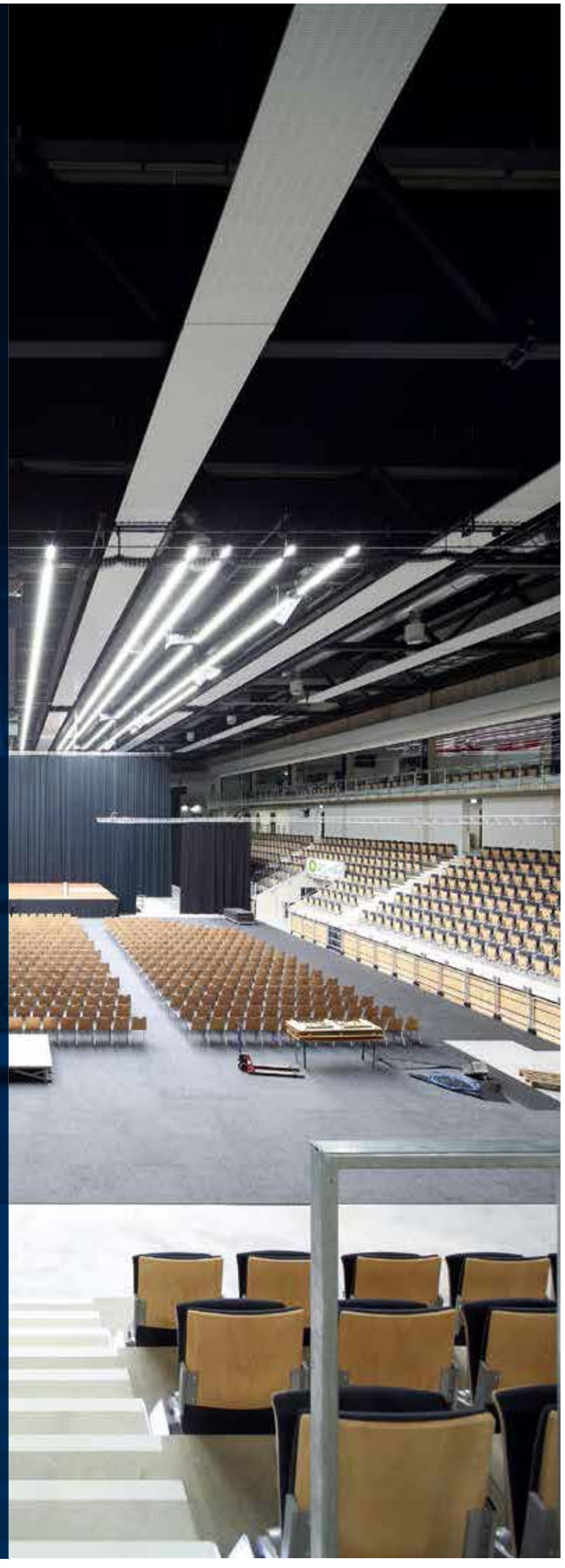
Easy to maintain, with hinged design panel.

Planeck

Design ceiling cassette with mixed air function. For use within suspended ceilings.

6

Radiant Ceiling Panels



Radiant Ceiling Panels

Radiant heat for halls and large spaces

Heat distribution is crucial to achieve thermal comfort in high-ceilinged spaces. The Galaxis radiant ceiling panels generate a favourable temperature profile from the floor to the full height of the ceiling.

Galaxis radiant ceiling panels are designed for use in industrial buildings, warehouses and production plants, sports halls and indoor riding arenas, as well as in retail stores.

The heat outputs have been tested by the HLK Stuttgart according to DIN EN 14037, registered by DIN CERTCO and monitored by Keymark certification, registration number 011-8D003. Galaxis radiant ceiling panels can be fitted with ball guards, tested by MFPA Leipzig, Examination Report No. UB 2.1/13-567-1 and -2.

Comfort and energy savings

If radiation heat is provided, the air temperature plays a minor role for the comfort of those in the building. Here is an example: air temperatures are approximately identical in the sun and in the shade. However, when the outside temperatures are low, people have a greater sense of well-being in the sun, when radiant heat plays an additional role.

Energy-efficient heating with many benefits:

- pleasant perception of temperature due to radiation, at the same time saving energy
- minimal air movements, therefore no swirling dust and no draughts
- no risk of fire or explosion
- maintenance-free operation
- no space needed on the floor and walls
- minimal floor to ceiling temperature stratification (approx. 0.2 K/m)
- good control due to smaller volumes of water

Combined with integrated LED lighting, the Galaxis LED offers an innovative and, at the same time, visually compelling solution for numerous applications. The integral LED technology helps to lower electrical energy consumption by up to 60%, at the same time providing a longer service life. In addition, the environmentally-friendly LED Galaxis delivers 100% luminosity from the first second.

Overview

1

2

3

1. Galaxis
2. Galaxis Z
3. Galaxis LED

Radiant Ceiling Panels

Overview

	Galaxis	Galaxis Z	Galaxis LED
			
	Article Group 2.31	**Article Group 2.31**	**Article Group 2.31**
Properties	• made of 1.0 mm thick cold-rolled sheet steel with semi-circular grooves for optimum seating of the tubes in the panel • perforated design possible • powder coated in RAL 9016, other RAL colours available **Thermal radiation** • 60 – 70% **Heating** • LPHW **Panel widths** • 300 – 1,500 mm **Panel lengths** • 3.0 – 70.0 m **Installation options** • ceiling installation	• inductive air outlet for optimum distribution of conditioned supply air into the space **Air volume** • 1,350 – 2,000 m^3/h **Heating** • LPHW **Panel widths** • 600, 900 mm **Length** • 1,450 mm **Installation options** • ceiling-mounted (between two radiant ceiling panels) • installation height 6 – 8 m	• with energy-efficient LED technology • lowers electrical energy consumption by up to 60% • long service life with a high number of switching cycles • 100% luminosity from the first second • no mercury **Light efficiency** • 125 lm/W **Light colour** • 4. 000 K/5.000 K **Panel widths** • 300 – 1.500 mm **Dimensions of LED light strip** • 750 x 62 x 70 mm **Installation options** • ceiling-mounted (LED light strip factory-fitted in the radiant ceiling panel)
Equipment	**Accessories** • press-fit sleeves, cover panel • mounting kits and regulating valve combinations • control accessories	**Supply air unit consisting of** • terminal box • individually adjustable slot diffusers • pipe connection for ceiling radiant panels	**LED light strip consisting of** • aluminium housing • either clear, opal, prism cover • dimmable 0 – 10 V, DALI
Applications	• production plants, workshops and assembly plants • industrial units, warehouses and production halls • exhibition halls • sports halls and indoor tennis courts, indoor riding arenas	• predominantly intended for sports and multi-purpose halls • production plants, workshops and assembly plants • industrial units, warehouses and production halls • exhibition halls	• industrial premises and warehouses, workshops • sports halls and indoor tennis courts, multi-purpose halls • impact-proof design optionally available

At a glance

Galaxis

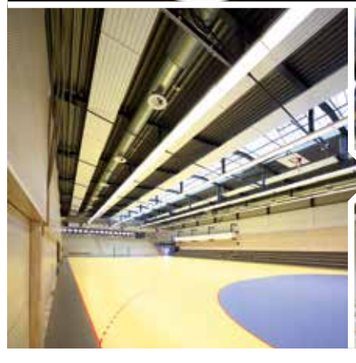
Radiant heating for halls and high-ceilinged buildings.

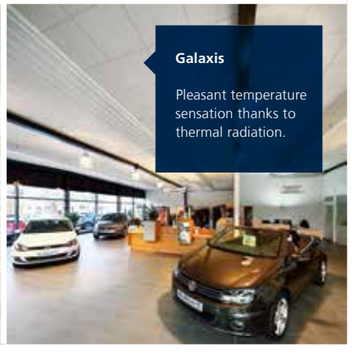
Galaxis LED

Energy-saving thanks to integrated LED lighting.

Galaxis

Perforated design to reduce noise levels available.





Galaxis

Pleasant temperature sensation thanks to thermal radiation.

7

Fan Coils

Decentralised heating and cooling for almost every requirement

Fan coils are high-quality decentralised units for heating and cooling and are used in many different kinds of buildings. They are predominantly used in hotels and in offices and public buildings, but can equally well be used in other commercial buildings. Their extensive range, comprising traditional fan convectors, cassette units, wall-mounted units and the innovative KaDeck system, offer an appropriate solution for almost every requirement.

Fan coils run primarily with LPHW or CHW and thus combine an energy distribution free of refrigerant with individual heat and cooling transfer in the room. A range of different designs offers maximum flexibility. Alongside wall- and ceiling-mounted units with designer casings, there are also models for installation in suspended ceilings or under the ceiling.

The outstanding workmanship of the components, sound-optimised housings and fans, as well as the low-maintenance construction of the fan coil units, combine to provide a high degree of safety for operators and users alike.

Optimum control options and their ease of use make fan coils an efficient element in every heating and cooling system. Connection to an on-site BMS is also possible. The KaControl automation system has proved itself to be an affordable and reliable solution for these cases.

Overview

1

2

3

4

1. Venkon
2. KaDeck
3. KaCool D Ceiling Cassette
4. KaCool W Wall-mounted Unit

Fan Coils

Overview

At a glance

Venkon

KaDeck

KaCool D

KaCool W

	Venkon	KaDeck	KaCool D	KaCool W
Properties	**Article Group 1.48**	**Article Group 3.26**	**Article Group 3.25**	**Article Group 3.24**
	Casing ▸ flexible combination by basic unit and casing ▸ the quietest on the market ▸ casing in slim design in all common RAL colours ▸ easy to install	**Casing** ▸ optimised model for dry or wet cooling ▸ discreet and elegant designer panel ▸ simple maintenance, no requirement for additional access openings, no visible latches ▸ all visible parts powder-coated, different colours on request	**Casing** ▸ minimalist cassette design ▸ compact basic housing ▸ design panel RAL 9003 (signal white) ▸ easy to install	**Casing** ▸ integrable condensate pump ▸ elegant and discreet ▸ easy to install
	Fan ▸ stage-controlled AC fans ▸ infinitely variable EC fans	**Fan** ▸ infinitely variable EC fans	**Fan** ▸ stage-controlled AC fans ▸ infinitely variable EC fans	**Fan** ▸ stage-controlled AC fans ▸ infinitely variable EC fans
	Heat exchanger ▸ 2- or 4-pipe unit	**Heat exchanger** ▸ 2-pipe unit	**Heat exchanger** ▸ 2- or 4-pipe unit	**Heat exchanger** ▸ 2-pipe unit
Features	**Heating** ▸ LPHW **Cooling** ▸ CHW	**Heating** ▸ LPHW **Cooling** ▸ CHW	**Heating** [3] ▸ LPHW **Cooling** [4] ▸ CHW	**Heating** [3] ▸ LPHW **Cooling** [4] ▸ CHW
	Cooling output [1] ▸ 0.88 – 9.52 kW **Heat output** [2] ▸ 1.82 – 22.12 kW	**Cooling output** [1] ▸ 306 – 2,642 W (dry and wet cooling) **Heat output** [2] ▸ 743 – 3,755 W	**Cooling output** [1] ▸ 1.24 – 11.10 kW **Heat output** [2] ▸ 2.22 – 14.00 kW	**Cooling output** [1] ▸ 1.24 – 3.81 kW **Heat output** [2] ▸ 1.5 – 4.86 kW
	Control options ▸ EC variation: KaControl or electromechanical ▸ AC variation: KaControl or electromechanical ▸ BMS interface optional	**Control options** ▸ KaControl optional	**Control options** ▸ EC variation: KaControl or electromechanical ▸ AC variation: electromechanical ▸ BMS interface optional ▸ infrared remote control	**Control options** ▸ EC variation: KaControl or electromechanical ▸ AC variation: electromechanical ▸ BMS interface optional ▸ infrared remote control
	Installation options ▸ wall-mounted, ceiling-mounted or free-standing	**Installation options** ▸ within suspended ceiling, below the ceiling, at the perimeter or in the centre of the room	**Installation options** ▸ ceiling installation	**Installation options** ▸ perimeter of room
	Variations ▸ available in seven sizes	**Variations** ▸ available in four versions (dry or wet cooling)	**Variations** ▸ available in six sizes	**Variations** ▸ available in four sizes
	Accessories ▸ 2- or 4-way valve kit ▸ possible fresh air supply ▸ pre-installed condensate pump and condensate tray	**Accessories** ▸ flexible waterside connections optional ▸ possible primary air supply ▸ optional dew point monitor sensor	**Accessories** ▸ 2- or 3-way valves ▸ possible fresh air supply	**Accessories** ▸ 2- or 3-way valves ▸ condensate pump for installation in the wall unit

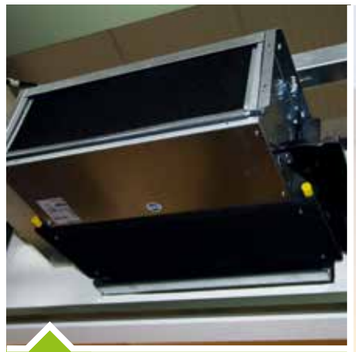
[1] with CHW 7/12 °C, EAT = 27 °C, 50% relative humidity
[2] with LPHW 75/65 °C, RT = 20 °C

[3] with CHW 7/12 °C, EAT = 27 °C, 48% relative humidity
[4] with LPHW 70/60 °C, EAT = 20 °C

Kampmann

Fan Coils

At a glance



Venkon

Fan convectors, FCU, recirculating air. Heating, cooling and filtering with maximum comfort.

Venkon

Sickle blade whisper-quiet fan.

KaCool D

Minimalist cassette design, optional with energy saving EC fans.

KaCool W

Wall-mounted room heating and cooling unit. Attractive and discreet on your wall.

KaDeck

Versatile ceiling-mounted air conditioning system for use in commercial buildings.

KaCool D

Ceiling cassette used as room cooler and room heater with a discreet design.

8 Chillers/Heat Pumps

Chillers/Heat Pumps

Environmentally-friendly air conditioning of buildings for today and tomorrow

Chillers and heat pumps are suitable for the heating and cooling of the most diverse types of buildings. Using water as an energy carrier in a building offers massive benefits over complex and extensive direct evaporation pipe systems that use large volumes of refrigerant:

Versatile to use
Since they use water as the medium, chillers can be readily extended with a wide range of products. It is, thus, very easy to integrate components with high ecological value such as CHP units, wood fired boilers and solar-driven heat generators and chillers, as well as a large number of different terminal appliances. Integrated heat pump functions optionally offer an attractive alternative for a complete heat generation.

Advantageously priced
In selecting this system, while its installation costs are similar to those of a direct evaporation system, the primary focus will be on its running costs. The lower volume of refrigerant required, the overall efficiency and the opportunity to integrate resource efficient systems all argue in favour of chillers.

Sustainable in terms of procurement
Since legislators are making high demands of air conditioning systems in terms of ecological compatibility, regulations have been developed that prescribe a minimum standard of energy efficiency and that limit or prohibit the use of various refrigerants. These requirements are constantly changing, meaning that the chillers themselves sometimes have to be replaced. With a chilled water system, it is significantly easier to adapt to changing conditions.

Given the ecological and economic benefits of water-based cooling equipment it is possible to provide affordable and environmentally responsible air conditioning for buildings, for today and for the future.

Übersicht

1

1 KaClima

Kampmann

Chillers/Heat Pumps

Overview

KaClima

Article Group 3.50

Operation

- air-cooled compact unit for the supply of centralised and decentralised units, environmentally-friendly, water-based

Fan
- infinitely variable EC fans
- extremely quiet as no ON/OFF cycles

Heat exchanger
- with hydrophilic coating

Properties

Heat output [1)]
- 5.19 – 49.3 kW

Cooling output [2)]
- 3.88 – 49.2 kW

Basic design
- cooling and heating mode (cooling mode; -10 °C - +45 °C; heating mode: -20 °C - +45 °C)
- continuously variable power adjustment via DC inverter compressor
- refrigerant R410A
- circulation pump, safety valve, flow monitor and dirt trap

Installation options
- indoor and outdoor installation

Accessories
- AXI-TOP diffuser for noise reduction

Features

- available in 14 sizes
- versions: cooling-only or heating/cooling
- low starting currents
- low refrigerant volume for environmentally-friendly air conditioning
- on-demand defrost control

[1)] with LPHW 45/40 °C, $t_{outdoor}$ = 7 °C
[2)] with CHW 7/12 °C, $t_{outdoor}$ = 35 °C

At a glance

KaClima

Central supply of decentralised and centralised units with heating and cooling, based on the environmentally-friendly medium water.

KaClima

Air-cooled compact unit for environmentally-friendly air conditioning.

9 Air Handling Units

Air Handling Units

Centralised air conditioning for an optimum indoor climate

Air handling units are used for the ventilation of individual rooms in hotels and office buildings, ventilation of retail and production areas, as well as the air conditioning of complex buildings.

Combining air handling units with decentralised units has proved itself to be effective for the air conditioning of buildings. Complementing the output range with a versatile control system offers the additional benefits of a coordinated complete system.

Various unit designs

A wide range of requirements caused by different structural conditions within buildings can be met thanks to a comprehensive product portfolio, consisting of slimline units, compact units as well as individually configured units. It is immaterial whether the ventilation unit is positioned outdoors, for instance on the roof of the building, or indoors. A range of solutions are also available to meet specific challenges, such as renovating existing buildings or smaller access openings.

Quality and comfort

Optimised in terms of air flow and fitted with energy-efficient fans, air handling units comply with the requirements of all relevant regulations and thus offer a high level of safety for operators and users alike. However, comfort is just as important as functionality: low air velocities in the units and optionally available sound baffles guarantee very low sound pressure levels. Air handling units are therefore ideal for use in areas in which disruptive noises from building services systems are to be avoided.

Sustainable in terms of operation and procurement

A range of systems for heat recovery permit the economically sensible selection of appropriate units, alongside the energy-efficient ventilation of buildings, taking into account the application, use and use behaviour. Various heat exchangers for use with LPHW, CHW and refrigerant are also available to condition the air perfectly.

KaControl

The KaControl automation system allows air handling units to be combined with decentralised units, for example, to create an efficient overall system. Interfaces to different building management systems also provide the option of flexible integration into an on-site building automation system.

Overview

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3

1. Airblock FG
2. Airblock KG
3. Ka_2O

Air Handling Units

Overview

	Airblock FG	Airblock KG	Ka_2O
			
Properties	**Article Group 1.50** • slimline AHU for heating, cooling, ventilation and filtering • expandable with heat recovery module (HRV) incl. bypass function • for use with fresh, mixed or recirculating air, heating or cooling mode **Fan** • direct-driven radial fan with backward-curved impeller, infinitely variable EC fans **Heat recovery** • heat recovery module with counter-flow plate heat exchanger **Installation options** • indoor installation, • suitable for installation in suspended ceilings	**Article Group 1.70** • compact unit with heat recovery • air volumes of from 800 – 13,000 m³/h • single and multi-section design **Fan** • directly driven radial fan with backward curved impeller, infinitely variable EC fans **Heat recovery** • rotary heat exchanger with heat recovery of up to 90% • counter-flow heat exchanger for complete separation of the air routes to protect from polluted exhaust air **Installation options** • indoor • outdoor • air discharge on left or right hand side as required	**Article Group 4.71** • regenerative cooling system via indirect evaporation with H_2O, for use in AHUs **Ka_2O technology** • in summer mode up to 20K cooling down of the outdoor air temperature via a counter-flow heat exchanger • cooling down via humidification of the exhaust air side of the heat exchanger • cooling down to wet-bulb temperature of the exhaust air • adiabatic efficiency = 97% • low pressure drop at air volumes of up to 25,000 m³/h • air guides for consistent and even supply air and exhaust air flow **Heat recovery** • counter-flow heat exchanger (temperature change rate up to 87%, acc. to EN 308 up to 78%) • heat recovery class H1 **Modular construction** • module technology, variable (max. 12 modules stacked to a module tower, 5 module towers can be combined)

Equipment	• differential pressure measurement with digital flow rate indicator
	• filter monitoring device with digital pressure drop indicator
	• extensive accessories
	  ▸ air filter (F7 / H13)
	  ▸ cooling (LPHW, CHW)
	  ▸ heat recovery
	  ▸ sound attenuation
		• F7 / M5 filter
		• effective for digital volume flow display
		• filter monitoring with digital display
		• KaControl ready-wired in unit
			• circulation water system integrated within the unit
			• KaControl connections fully wired inside the Ka_2O unit
			• complies with ErP Directives 2016 and 2018

At a glance

Ka_2O

Regenerative cooling system with H2O for ventilation units.

Airblock FG

Slimline AHU for heating, ventilation and filtering. For installation in suspended ceilings, with heat recovery.

Ka_2O

Airblock KG with indirect evaporation cooling by Ka_2O.

Airblock KG

Compact ventilation unit with heat recovery.

10

Extract Fans and Church Heating

Extract Fans and Church Heating

A feel-good climate thanks to decentralised air conditioning and heating

Air handling units deliver a high indoor air quality and comfort as well as excellent energy efficiency. They also stand out on account of their optimum control options and ease of use.

There are a number of different air handling solutions for small buildings, large halls and special uses in churches and historical buildings. In terms of operation, the focus is on air exchange using roof extract fans and ducts fans, and on air conditioning, by means of church heating.

Roof extract fans are often used for controlled ventilation of buildings and as complementary components for decentralised ventilation systems. Duct fans are ideal for controlled ventilation. The wide range of different accessories permits the flexible use of duct fans, as a whole host of different system configurations is possible.

Church heaters are special kinds of air handling units. These compact, space-saving units are installed in the floor and, thanks to the use of highly sound-absorbent materials, meet the specific operational noise standards required when heating churches and historical buildings.

Overview

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1. Diafort Roof Extract Fans
2. Duct Fans
3. Konvent Church Heating

Extract Fans and Church Heating

Overview

	Diafort	Duct Fans	Konvent
			
	Article Group 1.60	**Article Group 1.60**	**Article Group 1.49**
Properties			
	▸ roof extract fans for controlled building ventilation	▸ duct fans for the controlled ventilation of buildings	▸ decentral warm air system with LPHW heat exchanger ▸ for historical buildings air volumes from units up to max. 5,000 m³/h
	Fan ▸ EC diagonal fan for continuously variable control or three-phase diagonal fan, 2-stage	**Fan** ▸ three-phase diagonal fan, 2-stage ▸ diagonal impeller, whisper-quiet and high-performance	**Fan** ▸ slowly rotating radial fans, 230V, 3-stage
	Heat exchanger ▸ ---	**Heat exchanger** ▸ ---	**Heat exchanger** ▸ copper/aluminium, suitable for LPHW
	Installation options ▸ outdoors (pitched roof, flat roof)	**Installation options** ▸ vertical or horizontal installation for supply air or exhaust air	**Installation options** ▸ infloor/trench installation ▸ water-side connection either on right or left
Equipment	▸ extensive accessories ▸ sealing damper ▸ designed for flat and pitched roofs ▸ sound absorber	▸ extensive accessories ▸ duct sound attenuation ▸ air intake and air outlet accessories from the unit heater range	▸ with renewable G4 dry layer filter ▸ sound attenuation in the air intake and/or air outlet ▸ accessories: Mistral S air conditioning control

At a glance

Diafort

Extract fans for controlled building ventilation.

Diafort

With diagonal impeller boasts a functional design, whisper-quiet operation and durability.

Konvent

Whisper-quiet, decentralised trench church heating. Developed to meet specific requirements.

11

KaControl BMS

KaControl BMS

System integration with KaControl

The integrative operation of building services systems represents the state of the art and the basic requirement for energy- and cost-efficient operation of a building.

Automation interface
The KaControl automation system provides gateways for key building management systems, such as BACnet or LON. In the room automation system, Kampmann units can be integrated and visualised directly via KNX, LON or Modbus interfaces.

KaController room control unit
The KaController room control unit is the universal interface between people and Kampmann air conditioning technology. Intuitive operation via a push-turn button, in conjunction with the large display and attractive appearance, meets all expectations for convenient use.

Overview

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1. KaController Room Control Unit
2. KaController Room Control Unit with Operating Keys

Kampmann

KaControl:

Rationality through modularity

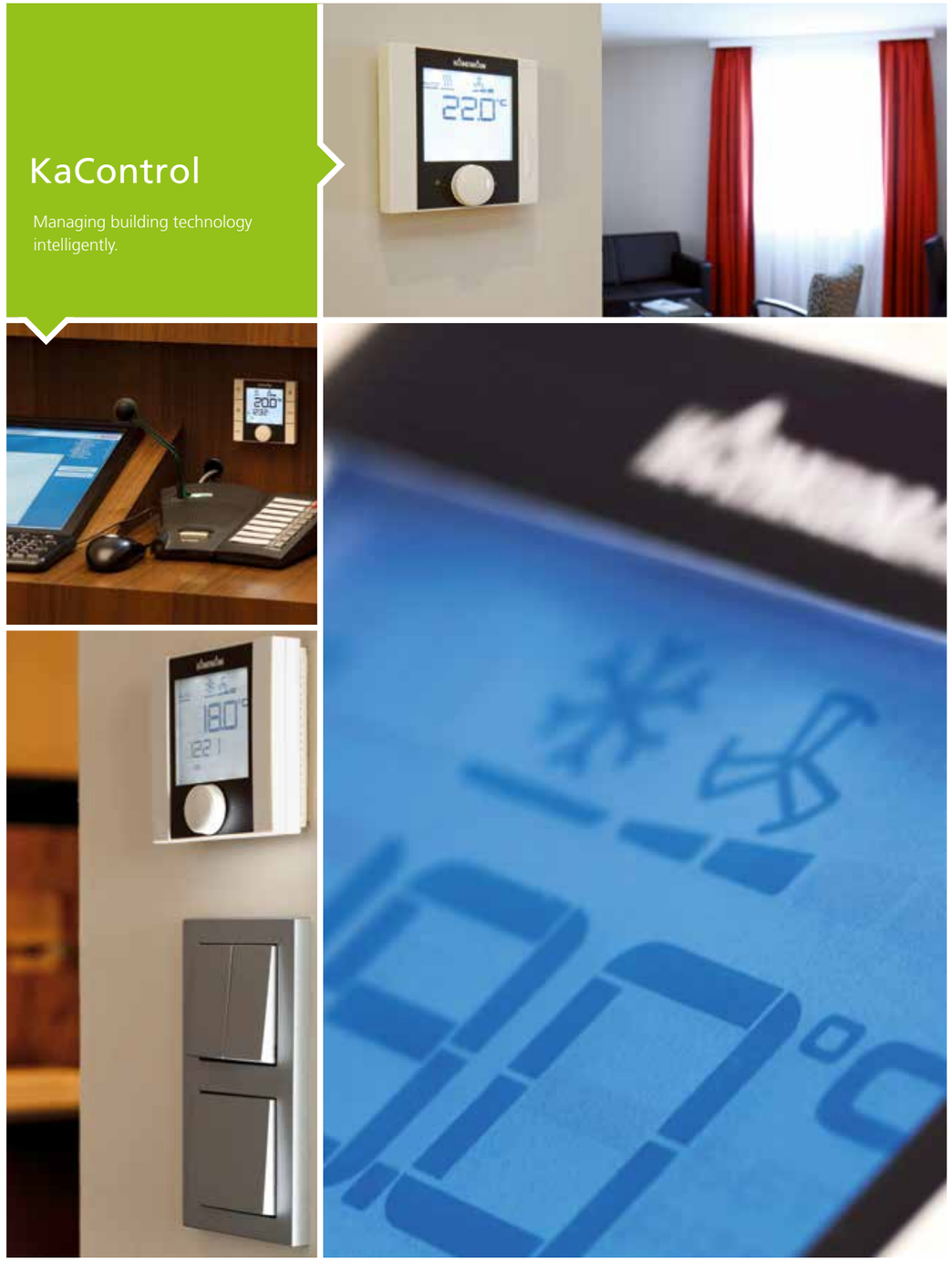
The KaControl automation system is tailored to the control and regulation of heating, cooling and ventilation systems.

The focus is on optimum use and adaptation of automation to the required functions when selecting and configuring the equipment and system controllers.

Basic Controller
The family of Basic Controllers is primarily used at a field level. The scope of functions is limited to the main purposes of heating and cooling. The controllers are factory-equipped with a fixed software. Depending on the use, adjustable parameters can be used to make adjustments to operation. The Basic Controller can optionally be equipped with interface cards for direct connection to automation systems.

Typical applications include the control of fan-assisted trench heaters, fan convectors, chilled water ceiling cassettes or even door air curtains. Unit heaters can be networked and operated in combination or in individual zones in industrial premises or large spaces.

At a glance



12

Equestrian Care Products

Equestrian Care Products

Well-being for your horse

Completely drying a horse's body is one of the most important tasks when caring for it. The combination of a Foehn warm air dryer and solarium therefore offers a full range of holistic equestrian care.

Many publications in the relevant technical literature talk of the beneficial influence of exposure to sunlight, even if is generated artificially. It improves the horse's well-being as well as its performance, relieves back tension and leads to greater breeding and sporting success.

Kampmann equestrian solariums provide an effective substitute for the sun and are independent of the time of day or weather conditions. The warm air fans also shorten the drying time.

The very highest level of complete care:
Kampmann equestrian Foehns first and foremost offer time-saving, effective and cost-effective all-over drying. By reflecting air from the floor and thermals, the front, lower chest and abdomen are all reached – parts that often missed out with conventional drying methods, like blankets or solariums.

The Kampmann Spektral-Foehn combines all the benefits of the globally patented Kampmann-Foehn with the positive effects of UV, infrared and colour radiation.

Overview

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1. Solarium Perfekt
2. Solarium Solair
3. Kampmann-Foehn
4. Spektral-Foehn

Equestrian Care Products

Overview

	Solarium Perfekt	Solarium Solair	Kampmann-Foehn	Spektral-Foehn
				
	Article Group 8.50	**Article Group 8.50**	**Article Group 8.50**	**Article Group 8.50**
Operation	‣ infrared treatment ‣ UV treatment	‣ infrared treatment ‣ UV treatment ‣ integrated warm air fan for drying	‣ drying of your horse's entire body in minutes	‣ drying of your horse's entire body in minutes ‣ colour therapy ‣ infrared treatment ‣ UV treatment
Properties	**Housing** ‣ self-supporting made of galvanised sheet steel RAL 9016 traffic-white, powder-coated ‣ 25 lamps for infrared and UV treatment **Power connection** ‣ 400 V three-phase, 16 A	**Housing** ‣ self-supporting made of galvanised sheet steel RAL 9016 traffic-white, powder-coated ‣ 25 lamps for infrared and UV treatment ‣ two warm air fans **Power connection** ‣ 400 V three-phase, 16 A	**Housing** ‣ aluminium AlMg3, RAL 9016, traffic white powder-coated with four integrated halogen lamps **Fans** ‣ 4 axial three-phase external rotor, 400 V/3~, wide blades for extremely low noise levels **Heat exchanger** ‣ copper/aluminium for LPHW with standard outlet air temperature control **Power connection** ‣ 400 V three-phase, 16 A	**Housing** ‣ aluminium AlMg3, RAL 9016, traffic white powder-coated ‣ 28 high-output lamps in a compact housing for colour therapy, UV and infrared treatment **Fans** ‣ 4 axial three-phase external rotor, 400 V/3~, wide blades for extremely low noise levels **Heat exchanger** ‣ copper/aluminium for LPHW with standard outlet air temperature control **Power connection** ‣ 400 V three-phase, 16 A
Equipment	**Control panel** ‣ for the separate control of infrared and UV lamps ‣ time settable in minutes **Control cabinet**	**Control panel** ‣ for the separate control of infrared lamps, UV lamps and hot air ‣ time settable in minutes **Control cabinet**	**Control panel** ‣ for the separate control of Kampmann Foehn and lighting ‣ time settable in minutes **Control cabinet**	**Control panel** ‣ for the separate control of colour light, infrared and UV lamps and outlet air temperature control ‣ time settable in minutes **Control cabinet**

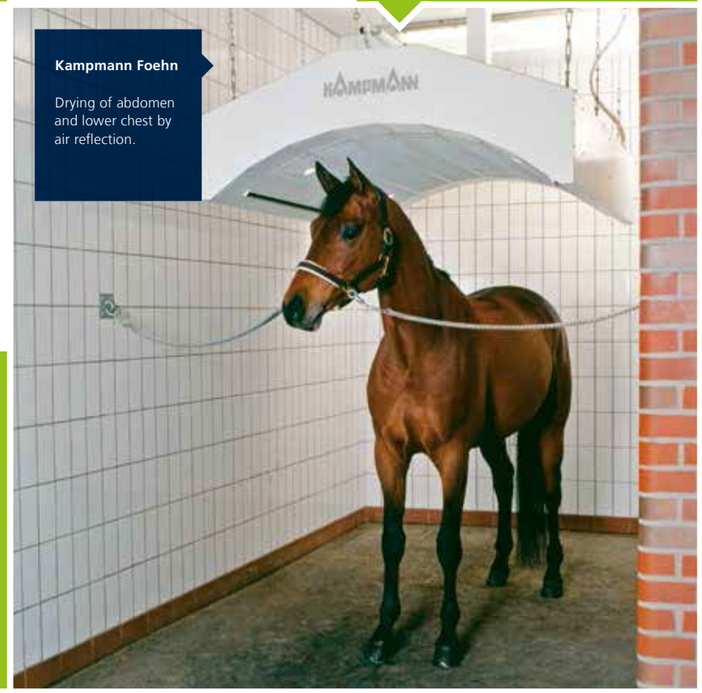
At a glance

Solarium Perfekt

Equestrian Solarium Perfekt promotes health and motivation.

Kampmann-Foehn

Equestrian Foehn dryer for all-over drying of your horse in minutes.



Solarium Solair

Warm air fans shorten the drying time.

Spektral-Foehn

Spektral-Foehn for all-over care at the highest level.

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