

# LICON HEAT s.r.o.



**Quality** Function **Design** Tradition



# REFERENCES



UBS Pleyad Business Centre  
Saint-Denis, France



MCBA Museum,  
Lausanne, Switzerland



Opera House,  
Copenhagen, Denmark



Museum Munch Oslo,  
Norway



Lachta Centre,  
Saint Petersburg, Russia



Neva Towers,  
Moscow, Russia



Zolotoy Ostrov Moscow,  
Russia



Fyrstikkalléen 1 AS Oslo,  
Norway



The Circle – airport,  
Zurich, Switzerland



EXPOFORUM  
Saint Petersburg, Russia



LCD apartments,  
Moscow, Russia



Panorama Business center,  
Bratislava, Slovakia



Einsteinova Business Centre,  
Bratislava, Slovakia



Harpa Concert Hall,  
Reykjavik, Iceland



Nordea Headquarters,  
Copenhagen, Denmark



Marina Lipno apartments,  
Czech Republic



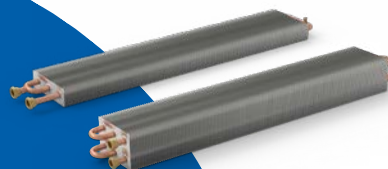
FREE-STANDING CONVECTORS  
**KORALINE**



WALL-MOUNTED CONVECTORS  
**KORAWALL**



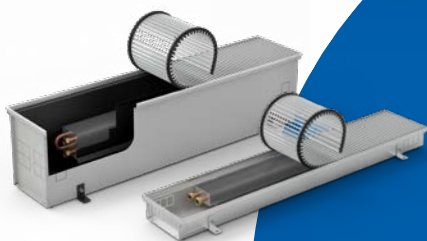
HEAT EXCHANGERS  
**KORABASE**



FACADE  
CONVECTORS  
**KORASPACE**



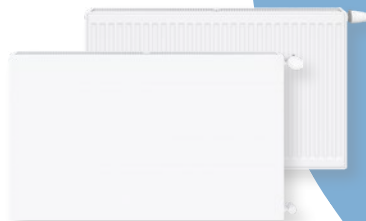
TRENCH HEATERS  
**KORAFLEX**



THE KORADO GROUP



PANEL RADIATORS  
**RADIK**



DESIGN HEATING  
UNITS **KORATHERM**



TOWEL RAILS  
**KORALUX**



VENTILATION UNITS AND  
CENTRAL RECUPERATION  
**KORASMA**  
**KORAVENT**  
**VENTBOX**



## PRODUCT PORTFOLIO

We offer a very wide range of products under one brand enabling comprehensive solutions for all types of building and space, all of which contribute to maximum compatibility, simplicity of design and service, individual solutions and financial savings.



# THE KORADO GROUP

## QUALITY – INTEGRITY – INNOVATION – DESIGN

As a reliable partner, the KORADO Group provides solutions for small- and large-scale heating, cooling and recuperation projects. Innovation is the guarantee of high quality products and modern design, forming the basis of long-term cooperation.

## SOLUTIONS FOR BUILDINGS OF ALL TYPES

Large projects, such as shopping centres, or small family homes? Standard, design radiators, custom-built convectors or recuperation? The extensive KORADO portfolio of products offers a wide range of technical solutions for the ideal climate and interior of buildings.

### KORADO, a.s.

The KORADO, a.s. Head Office and production site is a modern European plant manufacturing radiators and heating units. The technological equipment and the layout of the 30,000 m<sup>2</sup> site ensures KORADO, a.s. looks forward to further development and growth.



### LICON HEAT s.r.o.

LICON HEAT s.r.o. has a 50-year tradition of manufacturing convection units. It has been a member of the KORADO Group since 2013. LICON HEAT s.r.o. convectors are sold all over the world. LICON HEAT s.r.o. insists on using the most modern research and development methods, and works closely with leading experts in the field, including higher education institutions (the Technical University of Liberec, the Czech Technical University in Prague, etc.). We use the most up-to-date machines for the manufacture of our products, employing the principles of lean production. Products

are manufactured in the shortest possible time while maintaining maximum material's and design quality. We are a certified ISO 9001 Quality Management supplier. Our products are manufactured and tested according to ČSN EN 442 and ČSN EN 16430 standards. CE marking indicates that LICON convectors conform to the conditions set out in the Declaration of Performance in accordance with Regulation No. 305/2011 of the European Parliament and of the European Council, and further confirmed by notified authority No. 1015, the Engineering Test Institute, Brno.

## Quality for over 50 years



**1968**

The first LIKOV **steel convectors** were **manufactured** in Liberec in 1968.

**1995**

**Product portfolio modernisation. Production of the first trench heaters**, significantly improving the available range of design solutions.

**2004**

Comprehensive transformation of the company, **replacing the original LIKOV name to LICON HEAT s.r.o.**

**2013**

**LICON HEAT s.r.o. acquired by KORADO.**



# Why choose LICON convectors?



## A solution for every interior...

We offer trench heaters, wall-mounted, free-standing and special convectors, all of which can be installed unobtrusively, including in stylish interiors.



## An effective heating strategy...

Our convectors offer rapid heat availability, high efficiency, low energy consumption, and economic and environmentally-friendly operation.

## Straightforward assembly and maintenance.



## A very wide range...

You can choose from a variety of styles suitable for any interior, including dry and humid environments, and pool-side models. We have convectors and trench heaters that both heat and cool, all available in a wide variety of designs.



## The highest technical level...

Convectors and trench heaters are compatible with heating systems using all sources of heat (heat pumps, gas, electricity, solar energy, wood and biomass), including heating systems with low temperature gradient. They provide safe solutions, displaying low surface temperatures not exceeding 43 °C. Both the natural convection and forced convection convectors and trench heaters are fitted with quality grilles, including pencil proof options, guaranteeing enhanced user safety.



LICON HEAT s.r.o. convectors are sold all over the world. They are manufactured using the most up-to-date technology at our LICON HEAT plant in Liberec, Czech Republic.



The KORADO, a.s. Head Office and production site is a modern European plant manufacturing radiators and heating units. Our technological equipment and the layout of the 30.000 m<sup>2</sup> site ensures KORADO, a.s. looks forward to further development and growth.



**2018**

**New generation of heat exchangers and free-standing convectors.**

**2020**

**New generation of KORAFLEX trench heaters**

**2022**

**In 2022, the KORALINE free-standing convectors portfolio was significantly expanded to include new types, focusing on safety, design and high performance.**

## What next?

**We will continue improving our products using the most up-to-date technologies and all our experience and knowledge gathered during 54 years of convector production.**

# KORAFLEX

TRENCH HEATERS WITH NATURAL CONVECTION



- 897 standard sizes
- 23 standard lengths
- 4 model lines

- Heat output up to 3 480 W
- 16 standard grilles
- Design solution options

## KORAFLEX Optimal FKO with natural convection

Our widest range of trench heaters. Available in Economic and Exclusive versions, may be fitted with the entire range of grilles and frames.



## KORAFLEX Thin FKT with natural convection

Trench heater with lowest unit height – 6 cm. This model is particularly suited to interiors with low floor depth. Thin trench heaters may only be fitted with Thin grilles and Thin frames. Available in Economic and Exclusive versions.



## KORAFLEX Basic FKB with natural convection

Economic model suitable for design solutions. Manufactured from non-lacquered galvanized steel.

## KORAFLEX Pool FKP with natural convection

For humid environments, manufactured from AISI 316 stainless steel finished with hem, RAL 9006 grey lacquered heat exchanger.





# KORAFLEX

## TRENCH HEATERS WITH FORCED CONVECTION



- 180 standard sizes
- 12 standard lengths
- 3 model lines
- Heat output up to 13 435 W
- 16 standard grilles
- Safe regulation guaranteeing precise fan rotation and declared output
- 24 V DC or 230 V AC regulation
- Design solution options



### KORAFLEX Pool-V FVP with forced convection

Model line for humid environments. Made of AISI 316 stainless steel, with sloping base and dividing partition as protection against flooding. Swimming pool model may be fitted with aluminium grille. Pool trench heaters are finished with hems replacing frames.



Unsuitable for salt water pools.



### KORAFLEX Optimal-V FVO with forced convection

Our widest range of 24 V DC powered trench heater models with forced convection. Available in Economic and Exclusive versions, fitted with RAL 9005 black lacquered heat exchangers. The KORAFLEX Optimal range may be fitted with the entire range of grilles.



### KORAFLEX Energy FVE with forced convection 230 V AC

Derived from the Optimal range, extended by 20 cm, housing electrical regulation and 230 V AC connection. Suitable for dry environments for heating only. Installation of the device must be carried out by persons with the relevant electro technical qualifications. Proper inspection and testing of the electrical installation must be carried out prior to commissioning.



# KORAFLEX HEATING AND COOLING

TRENCH HEATERS WITH FORCED CONVECTION



- 17 standard sizes
- 14 standard lengths
- 2 model lines

- Heat output up to 10 745 W
- Cooling output up to 2 365 W
- Design solution options



## KORAFLEX Variant F2V

model, heating or cooling  
2-pipe system

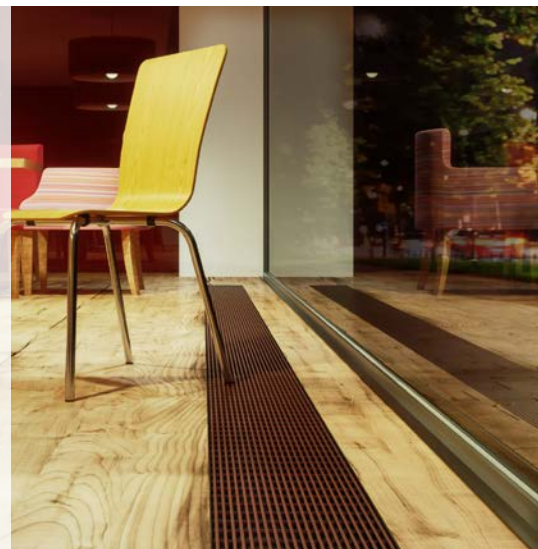
For heating or cooling. Achieves high heating and cooling performance. The F2V model is fitted with a stainless steel condensation drainage canal.



## KORAFLEX Variant F4V

heating and cooling 4-pipe system

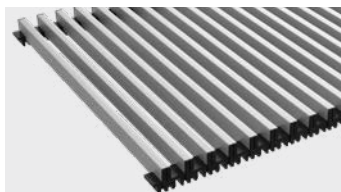
For heating and cooling. Achieves high heating and cooling performance. Equipped with a stainless steel condensation drainage canal. Available in Economic and Exclusive models.



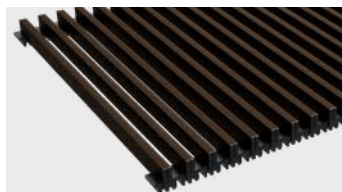


# KORAFLEX GRILLES

## Aluminium elox



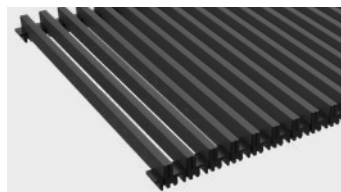
Roll-up alu/silver



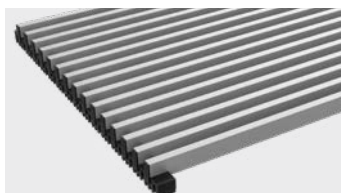
Roll-up alu/dark bronze



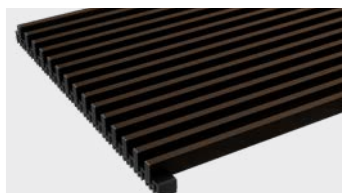
Roll-up alu/light bronze



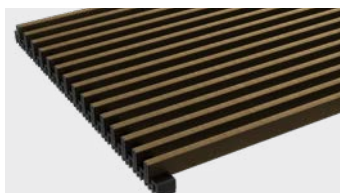
Roll-up alu/black



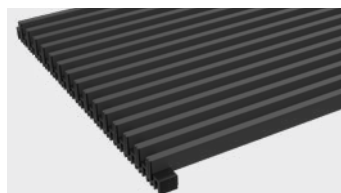
Linear alu/silver



Linear alu/dark bronze

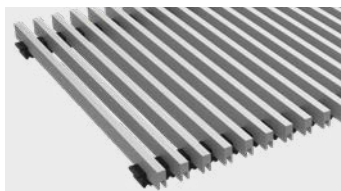


Linear alu/light bronze



Linear alu/black

## Thin – aluminium elox



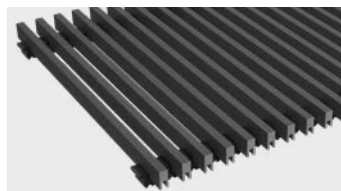
Roll-up alu/silver



Roll-up alu/dark bronze



Roll-up alu/light bronze

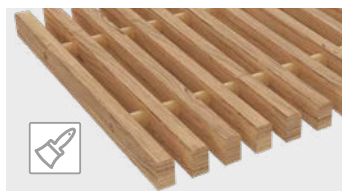


Roll-up alu/black

## Wood



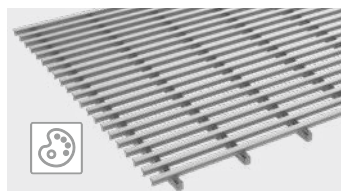
Roll-up natural/lacquered beech



Roll-up natural/lacquered oak



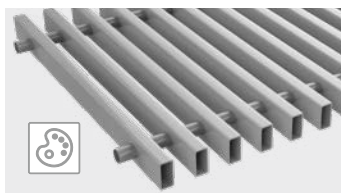
Roll-up natural/lacquered mahogany  
(upon request)



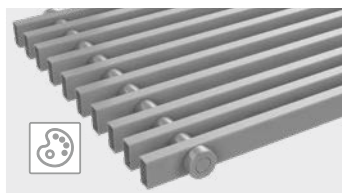
Cross/steel, RAL 9006 lacquer  
(upon request)

## Cross

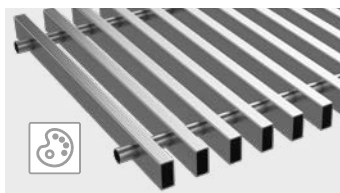
## Steel



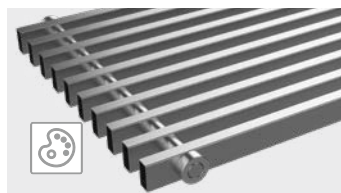
Roll-up steel, RAL 9006 lacquer



Linear steel, RAL 9006 lacquer



Roll-up/stainless steel



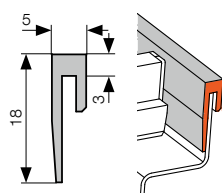
Linear/stainless steel

## Stainless steel

# KORAFLEX FRAMES

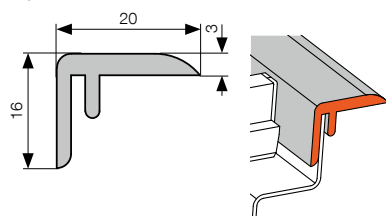
### U-frame

Standard

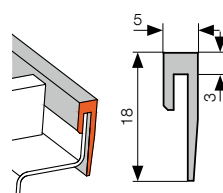


### F-frame

Optional

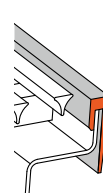


### Thin frame

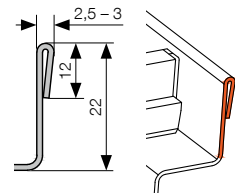


Lowered casing edge.

### Cross frame



### Hem



Measurements shown in mm.

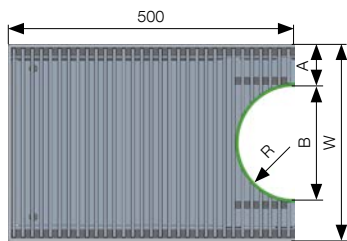
# DESIGN MODULES

## TRENCH HEATERS

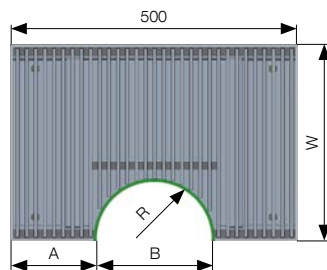
Our modular system was developed to simplify the installation of trench heaters in unusual interiors, and to enable rapid processing of orders and quotations for projects. Modules are design elements

only – they are not fitted with heat exchangers. **The wide range of design modules means quick and easy selection of trench heater systems made to suit your particular interior.**

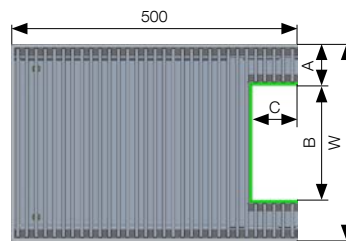
MR-A



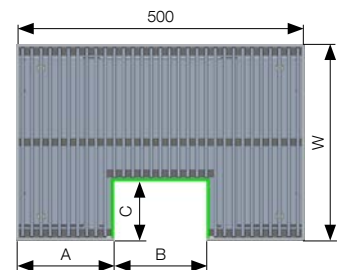
MR-B



MC-A



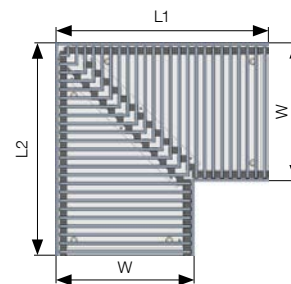
MC-B



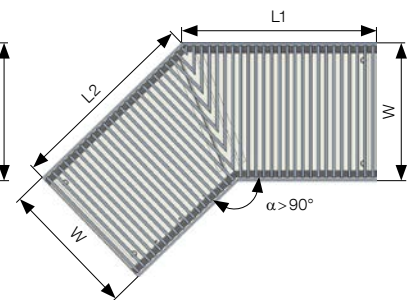
## CORNER PARTS

Corner parts are the ideal solution to ensure seamless connections of KORAFLEX trench heaters in the corners of rooms. Corner parts are design elements only – they are not fitted with heat exchangers.

MA-A

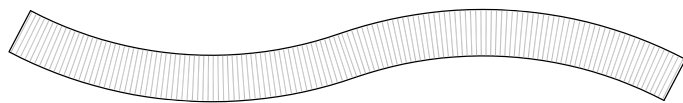


MA-B



## ANGLED AND CURVED DESIGNS

Unified style and technical design for every interior, elegant continuous convectors along the walls of an entire room, available in angled and curved designs. These elements are equipped with heat exchangers.

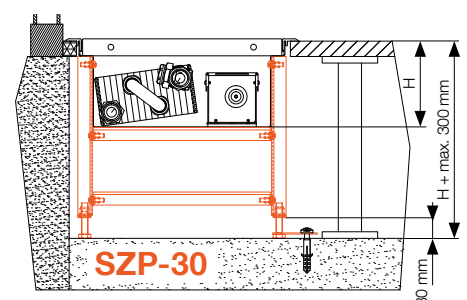
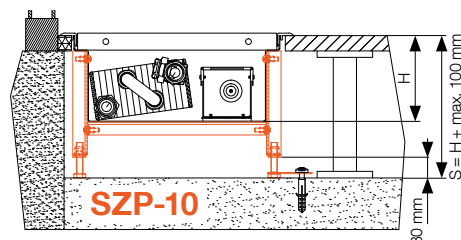
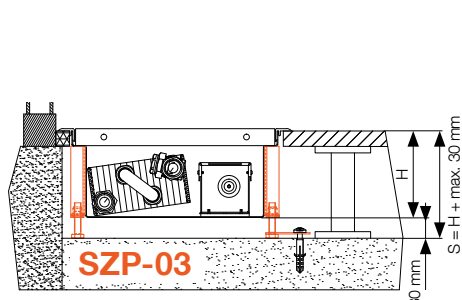


## RAISED FLOOR INSTALLATIONS



Raised floor supports offer a stable and effective solution for raised floor trench heater installations. Supports are made of non-lacquered

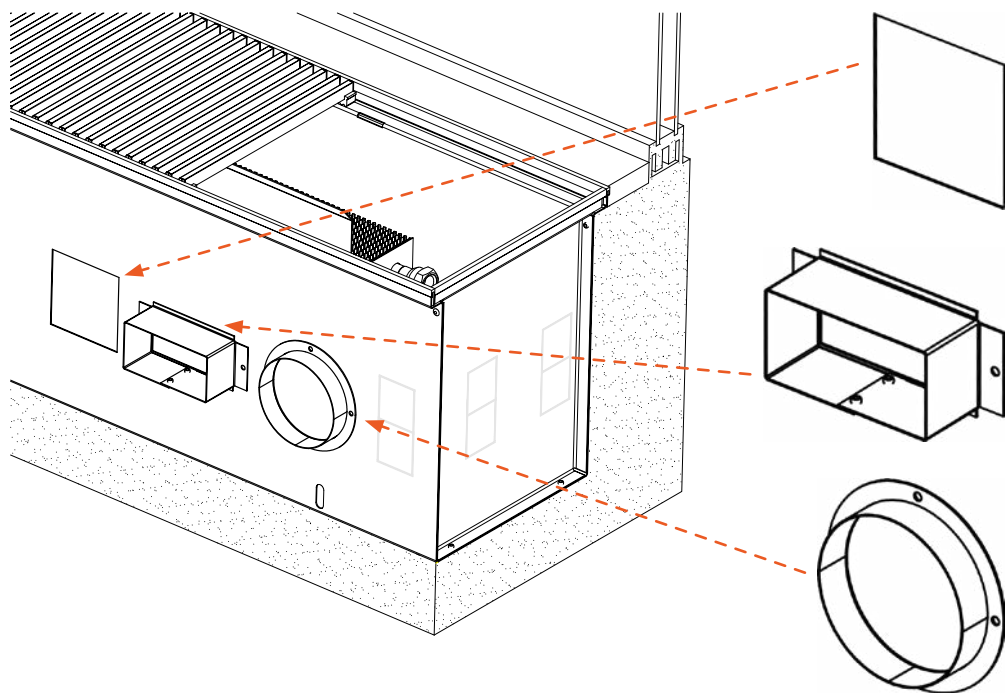
steel, are suitable for raised floors for a depth of up to 500 mm and can be used with trench heaters with both natural or forced convection.





# AIR CONDITIONING CONNECTIONS

## TRENCH HEATERS



### Opening for air conditioning connection

- optional alteration to construction
- measurements as per specifications
- quotation on request

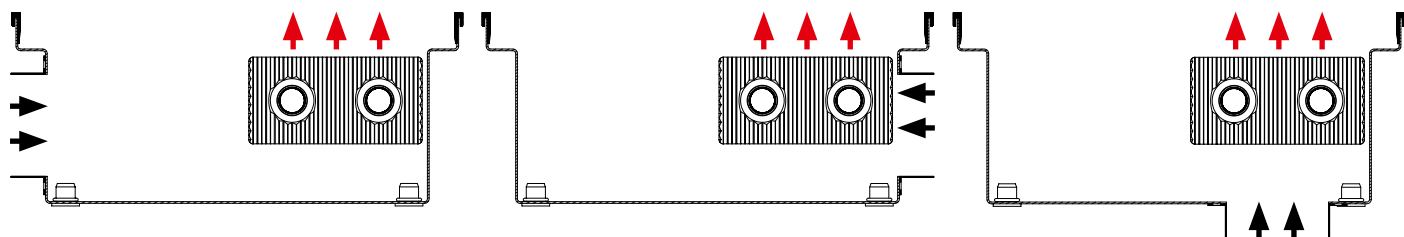
### Rectangular flange

- optional accessory
- measurements as per specifications
- quotation on request

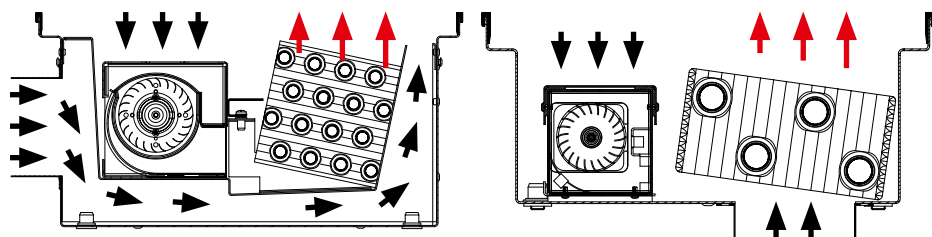
### Circular flange

- optional accessory
- measurements as per specifications
- quotation on request

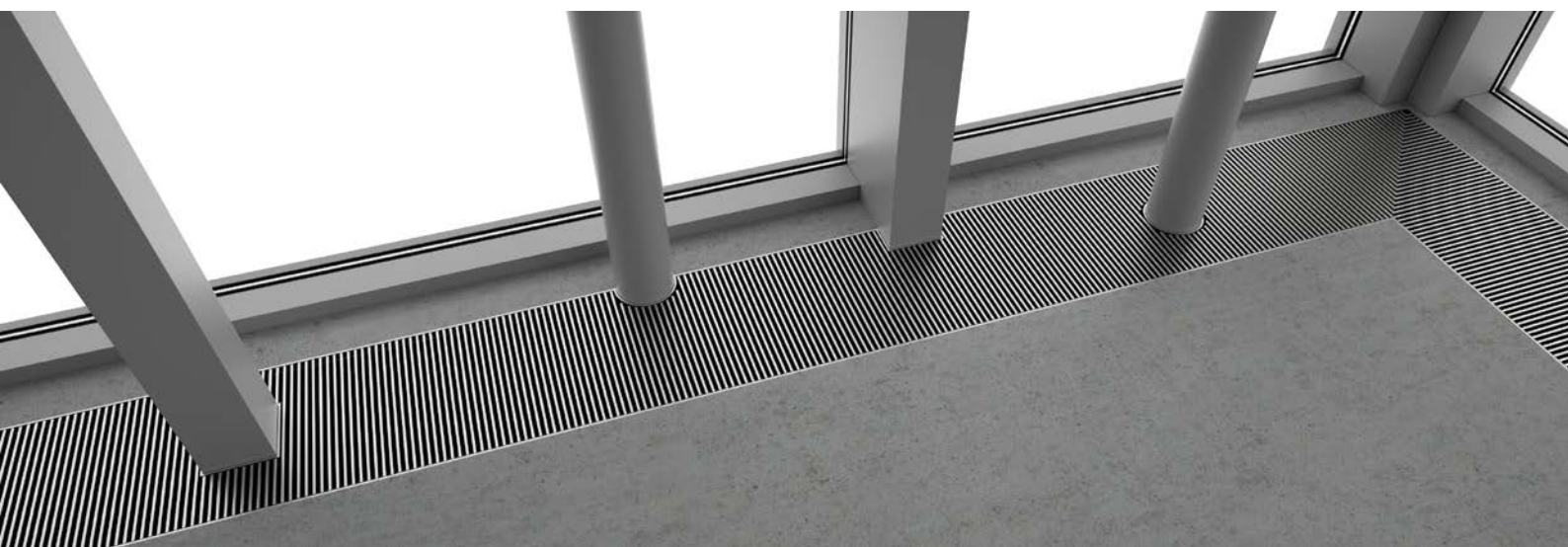
### Natural convection (FK-models) – connection to airconditioning distribution system



### Forced convection (FV-models) – connection to airconditioning distribution system

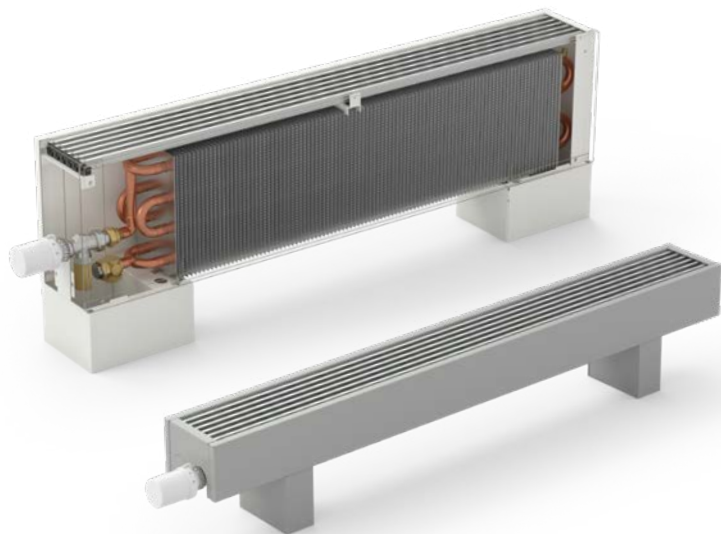


Details of proposals, prices and delivery times will be specified on request.

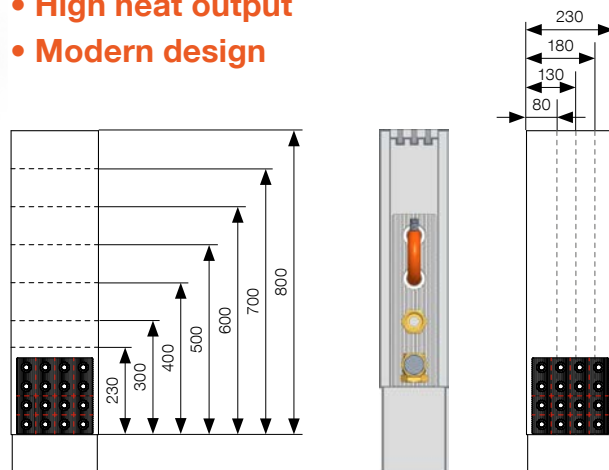


# KORALINE

FREE-STANDING CONVECTORS WITH NATURAL CONVECTION AND DESIGN GRILLE



- 756 standard sizes
- 16 standard lengths
- 2 model lines
- Heat output up to 7 400 W
- May be installed on the floor or walls
- Low surface temperature
- High heat output
- Modern design



## KORALINE Optimal LKO with natural convection

Are characterized by design and output. They are fitted with a high quality silver elox aluminium grille. Given the diverse portfolio and the optimal output, convectors in this model line are ideal for heating private houses, residential and office buildings.



## KORALINE Power LKW with natural convection

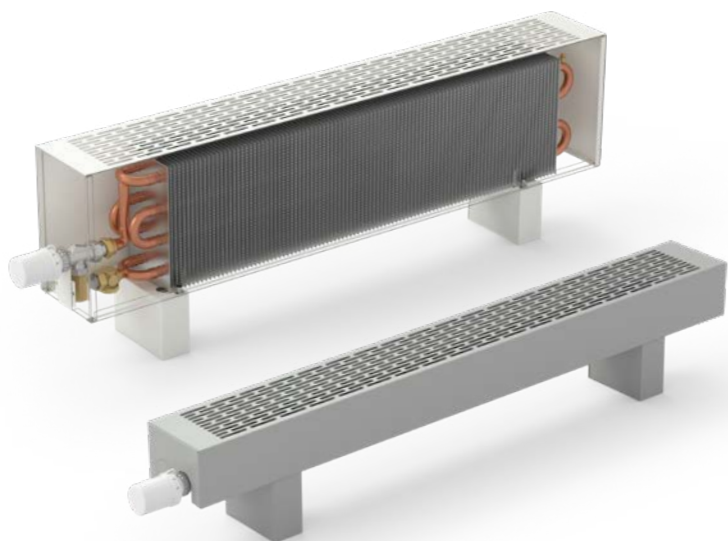
Is the most extensive model line and features a high-performance heat exchanger with double the standard area of uniquely shaped fins. This model line provides high heat output while maintaining a modern design. Convectors are fitted with a high quality silver elox aluminium grille.



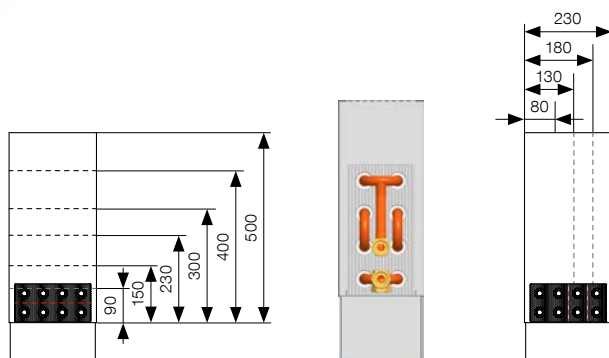


# KORALINE

FREE-STANDING CONVECTORS WITH NATURAL CONVECTION AND PERFORATED SAFETY GRILLE



- 480 standard sizes
- 16 standard lengths
- 2 model lines
- Heat output up to 7 400 W
- May be installed on the floor or walls
- Low surface temperature
- High heat output
- Perforated safety grille



## KORALINE Basic LKB with natural convection

Is the standard version of our low surface temperature free-standing convectors. In this model line the safety grille is perforated directly in the galvanized steel casing. Optimal outputs and a favourable price make KORALINE Basic the ideal model line for eating private homes, apartment complexes and office buildings.



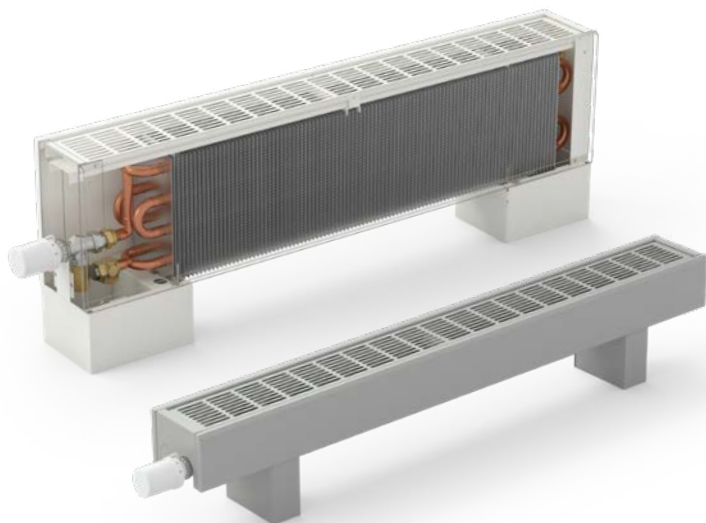
## KORALINE Combi LKC with natural convection

KORALINE Combi LKC models house a high performance heat exchanger with double the standard area of fins. A safety grille is an integral part of the casing – it is perforated directly in the galvanized steel casing body. Thanks to their compact dimension, maximal output, and low surface temperature, the KORALINE Combi LKC model is suitable for heating a variety of interiors starting from small family houses up to large public premises.

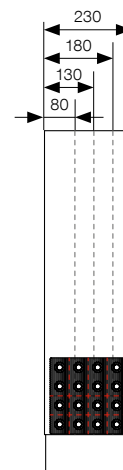
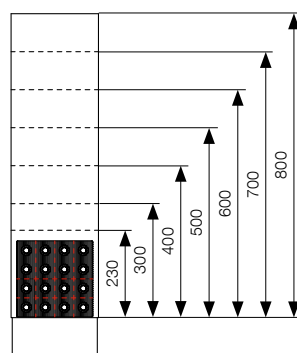


# KORALINE

FREE-STANDING CONVECTORS WITH NATURAL CONVECTION  
WITH SYMMETRIC SAFETY PENCILPROOF GRILLE AND RESISTANT DESIGN



- 561 standard sizes
- 11 standard lengths
- 2 model lines
- Heat output up to 5 096 W
- May be installed on the floor or walls
- Low surface temperature
- High heat output
- Emphasis on safety



## KORALINE Safe LKS

with natural convection

For safety reasons, the convector casing is made of 1.5 mm thick sheet steel, its front edge is bevelled, and is fitted with a symmetric pencil-proof grille. Thanks to its safety features and low surface temperature, this model line is ideal for installation in educational, healthcare, administrative and public premises.



## KORALINE Max LKM

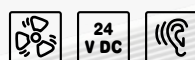
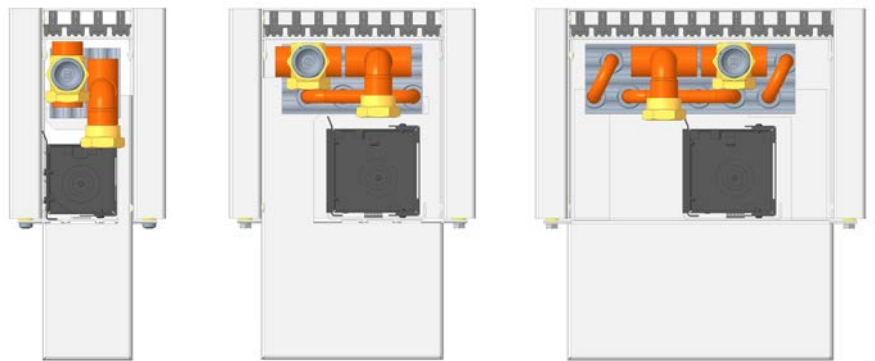
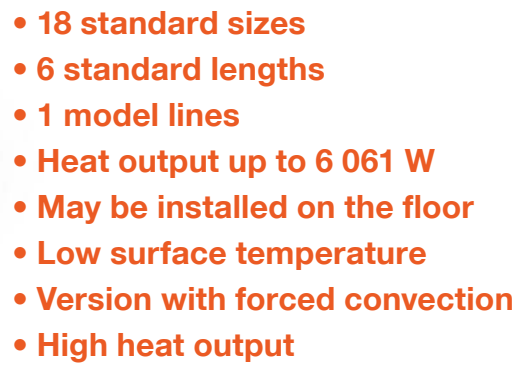
with natural convection

This line features a combination of heightened safety level and maximum output. The casing is made of 1.5 mm thick sheet steel and is equipped with a symmetric pencil-proof grille. The body houses a high-performance heat exchanger with double the standard area of aluminium fins.





## FREE-STANDING CONVECTORS WITH FORCED CONVECTION



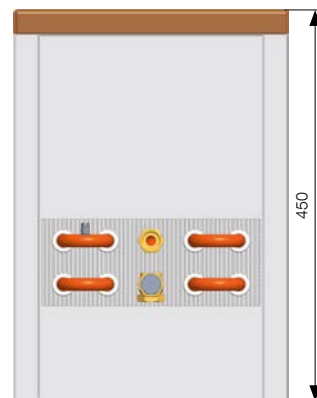
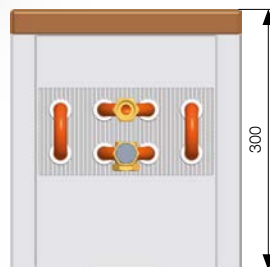
An exclusive version of free-standing convectors fitted with economical 24 V DC fans with minimum power input. Achieves very high performance even with low temperature gradients. The model is available, equipped with aluminium grilles.

# KORALINE

## BENCH CONVECTOR WITH WOODEN BENCH TOP



- 12 standard sizes
- 6 standard lengths
- 2 model size ranges
- Heat output up to 3 525 W
- Solid wood or veneer bench tops
- 3 bench top wood options: beech, oak or American walnut
- Version for damp/humid environments
- High heat output
- Sophisticated design



### KORALINE Optimal LDO with natural convection

Bench convectors fitted with beech, oak or American walnut bench tops. Manufactured from RAL 9016 white lacquered galvanized sheet steel. Designed for dry environments in halls or administrative buildings. Built to bear static weight and suitable for sitting.



### KORALINE Pool LDP with natural convection

A proven smart combination of design, performance and characteristics. KORALINE Exclusive is fitted with RAL 9016 white lacquered AISI 316 stainless steel casing. Where fitted with American walnut bench tops, this model is suitable for installation in environments with increased humidity.



# KORAWALL

## WALL-MOUNTED CONVECTORS



- 78 standard sizes
- 9 model lines
- Heat output up to 6 002 W

- Heating and cooling functions
- Models with forced and natural convection
- PLAN design with perfectly flat front panel



### KORAWALL OKN

with natural convection

Wall-mounted convectors have long been used in households and commercial premises. They achieve high performance even though they are small in size. KORAWALL convectors feature a very low and safe surface temperature.



### KORAWALL OKIOC

with forced convection

Developed for low-temperature heating systems. High performance is guaranteed even at very low temperature gradients. Ideal for installation where the heat source is a heat pump, solar system or condensing boiler. In the summer months they can be used for cooling without causing condensation.



# KORABASE

## HEAT EXCHANGERS



- 168 standard sizes
- 12 standard lengths
- 7 size ranges
- Heat output up to 5 500 W
- Design solution options
- Counter-flow and single-stream connections



# KORASPACE

## FACADE CONVECTORS



- Optional colours available according to RAL colour chart
- Design solution options



### KORABASE Economic, Exclusive

KORABASE heat exchangers are suitable for individual installations, especially in spaces where uniformity of interior design materials is paramount. Heat exchangers are manufactured from copper tubes and aluminium fins. Exclusive version is lacquered black RAL 9005.



### KORASPACE FK with natural convection

Facade convectors are an ideal and effective solution for buildings with large all-glass facades, when the transmission of cold air during the winter months may significantly affect the microclimate of the interior. KORASPACE facade convectors are installed directly onto the facade, thereby preventing the direct transmission of cold air into the interior of the building. Warm air rising from the convector mixes with descending cool air to create

a thermal barrier, providing greater comfort without causing condensation on the surface of the glass.

- Excellent controllability and rapid temperature rise
- No transmission of heat to the exterior of the facade
- Space for further, parallel distribution systems





# COLOUR CHART



code 10  
White RAL 9016



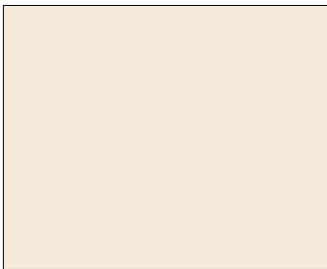
code 14  
Jasmine



code 16  
Bahama



code 22  
Manhattan



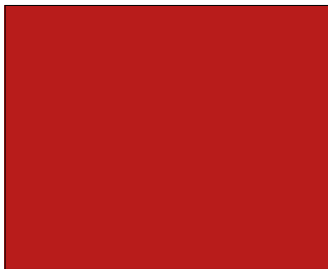
code 26  
Pergamon



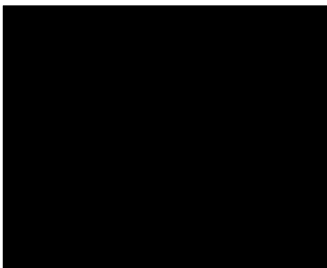
code 32  
Anthrazit Metallic



code 35  
Silber RAL 9006



code 37  
Red RAL 3001



code 39  
Black RAL 9005



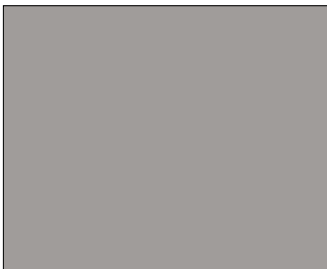
code 40  
Alloy Black



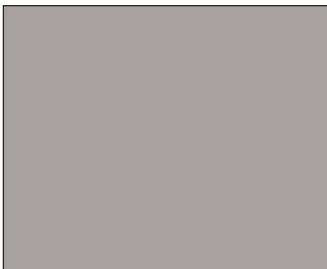
code 42  
Gold



code 45  
Pearl Brown



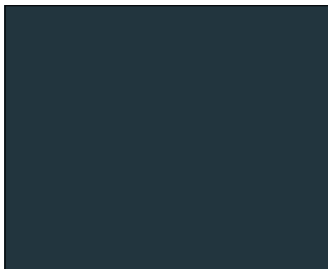
code 47  
RAL 9007



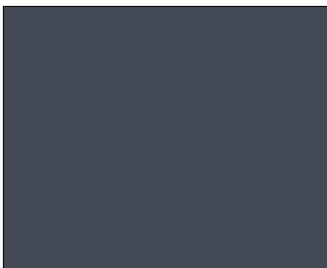
code 48  
RAL 9006



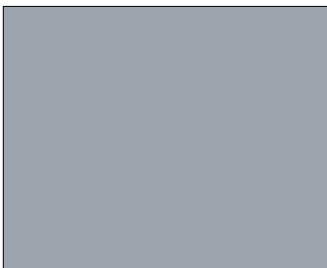
code 49  
RAL 7024



code 51  
RAL 7016



code 54  
RAL 7015



code 57  
RAL 7040

**Notice:**

There is a potential for variations in colour between the colour chart and heating units. RAL 9016 white is the standard lacquer. Other colours shown in the Colour Chart may be ordered at an extra charge according to the valid price list.



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