



**we  
simplify  
bakers'  
lives.**

**„The right choice  
of oven will  
make a baker's  
job easier for  
decades.“**

Ing. Karel Kornfeil

**Kornfeil**

**Since 1991**

Kornfeil is one of Europe's leading manufacturers of bakery ovens and process equipment for bakeries. The quality and reliability of Kornfeil bakery ovens is reflected not only in the 30-year tradition in the development and installation of bakery ovens, but especially in the hundreds of satisfied clients across Europe.

The main goal of the company is to simplify the bakers' daily work, to reduce the energy consumption of bakeries by applying program control and controlling the entire production process, but at the same time to maintain the artisanal approach to the production of bakery products. That is why the development team works daily on innovations in the field of bakery ovens and planting equipment using waste energy processing. We provide our clients with 100% technical and technological support.

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# How it all started

Kornfeil is a purely family-owned corporation, headed by members of the Kornfeil family and 140 other employees, which is constantly dedicated not only to the production and modernization of baking ovens and all accessories for all types of bakeries, but also to the development of baking technology.

## 1991 : **First oven built**

The first oven was hand-drawn with love and great determination. It still bakes to this day.



**1992 : First loading device produced**

- Hard work and the baker's peel have been
- inseparable from baking for centuries. In
- hindsight, the first Kornfeil loading device
- was a very lazy helper, but today, loading
- devices fully replace human labor and
- make production as efficient as possible.

**1996 : EkoBlok**

- We have been eco-friendly since the 1990s
- thanks to EkoBlok - an eco-friendly flue gas
- shower that contributes to environmental
- protection and reduces energy costs.

**2014 : Kornfeil Industry. Continuous Bread Proofers Division**

- Because it is important for us to
- know every technical detail of every
- product that leaves our factory,
- we have also been manufacturing
- continuous proofers since 2014.

# Why Kornfeil







## 1 **Development**

Everything we do, we do ourselves. We don't buy drawings, we take pride in our development and design team.

## 2 **Manufacturing**

Everything we invent, we also manufacture ourselves. We have not shifted production, we have remained faithful to the experience and skilled people who operate modern laser or die-cutting machines.

## 3 **Installation**

And because ovens don't bake without quality installation, we also have a large installation team of experts.

## 4 **Service**

The service life of the ovens reflects the careful and regular care we provide 24/7 through the Kornfeil service team or partner companies.

# 01

## Deck ovens

Deck ovens are the heart of any bakery, without them there is no good bread. Thanks to the large heat accumulation in the baking stone, they are the best solution to bake tasty, porous and high-quality bread. According to the method of heat distribution and the type of heat transfer medium we distinguish basic types of deck ovens.





### **Thermooil**

ThermoStar  
ThermoStar Classic

They are characterized by ideal uniformity of baking. The energy transfer is more efficient and results in lower consumption compared to cyclothermic ovens. The heat transfer medium of thermooil ovens is hot oil which circulates in heating radiators located under the baking plates. Thermooil technology is used in both deck and rack ovens. The heating medium for these ovens can be natural gas, fuel oil or electricity.

### **Cyclothermic**

Variant

Variant cyclothermic deck ovens have been tested by hundreds of bakers over the years. Ideal for baking classic artisan breads and bread rolls.

They work on the principle of hot air circulation in channels under the baking plates, hermetically separated from the baking area. Thanks to the circulation, the oven deck is heated from above and below through the baking plate. The ovens have good temperature flexibility and can ensure the optimum temperature curve necessary for quality baking of rye and wheat breads. The heating medium in cyclothermic ovens is natural gas or fuel oil.

### **Electric**

Fornata

They are particularly used in areas with limited availability of natural gas or cheap electricity. The electric ovens are designed so that the individual decks have independent baking, which allows the simultaneous baking of different types of pastries in each deck separately. The heating medium is always electricity.



# ThermoStar

**ThermoStar thermooil ovens with baking areas from 15 to 72 m<sup>2</sup> are preferred for ideal baking uniformity, good temperature stability and a properly baked crust every time.**

The energy transfer is more efficient compared to cyclothermic ovens and results in lower energy consumption. For a better use of the bakery space, the thermooil ovens can be assembled with a larger number of decks, 4–15, for different types of bread and pastries and with the Asistents for their operation.

## Thermooil power.

## Technical parameters

<b>Baking surface</b>	15 to 72 m <sup>2</sup>
<b>Deck height</b>	200 or 230 mm
<b>Deck width</b>	1 800 mm or 2 000 mm
<b>Deck depth</b>	2 000 or 2 400 mm
<b>Number of decks</b>	4 to 15

## Benefits

- Fast temperature rise and good temperature stability
- Ideal baking uniformity with a deck difference of  $\pm 1^{\circ}\text{C}$
- Economical baking with gentle radiant heat
- Capable of baking 200 to 1 300 kg of bread per hour
- Wide choice of ovens in single, double, triple or quadruple circuit design

## Accessories

### Asistent **p. 32**

A deck oven without a loading machine would be as if it did not exist. The wide range of automatic loading devices meets the needs of small and industrial bakeries. We develop and manufacture our own loading machines.

# ThermoStar TopCrust

TopCrust is a new design solution for ThermoStar thermooil deck ovens. The solution consists in the supply of preheated fresh air to the deck, which reduces baking time by 15–20 % depending on the type of product. In practice, this means that more kilograms of bread can be baked on the same baking surface = increased baking performance of the ovens and longer shelf life of the products.

- reduced baking time
- crumb baked through to  $96^{\circ}\text{C}$
- extension of shelf life by 1–2 days
- high performance in a small baking area
- good temperature flexibility and uniformity
- proven in practice

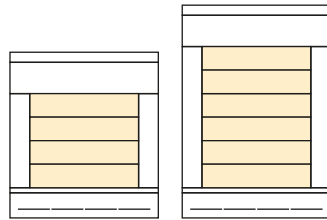
# ThermoStar

## Sample models

1

### Single circuit

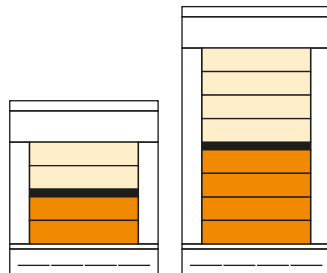
- same temperature in each decks
- one product baking



2

### Double circuit

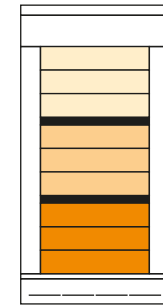
- two groups of decks with independent temperature curve
- two independent ovens
- two products baking



3

### Triple circuit

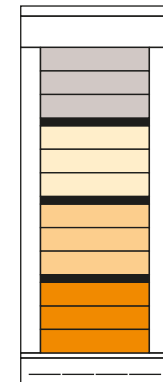
- three groups of decks with independent temperature curve
- three independent ovens
- three products baking



4

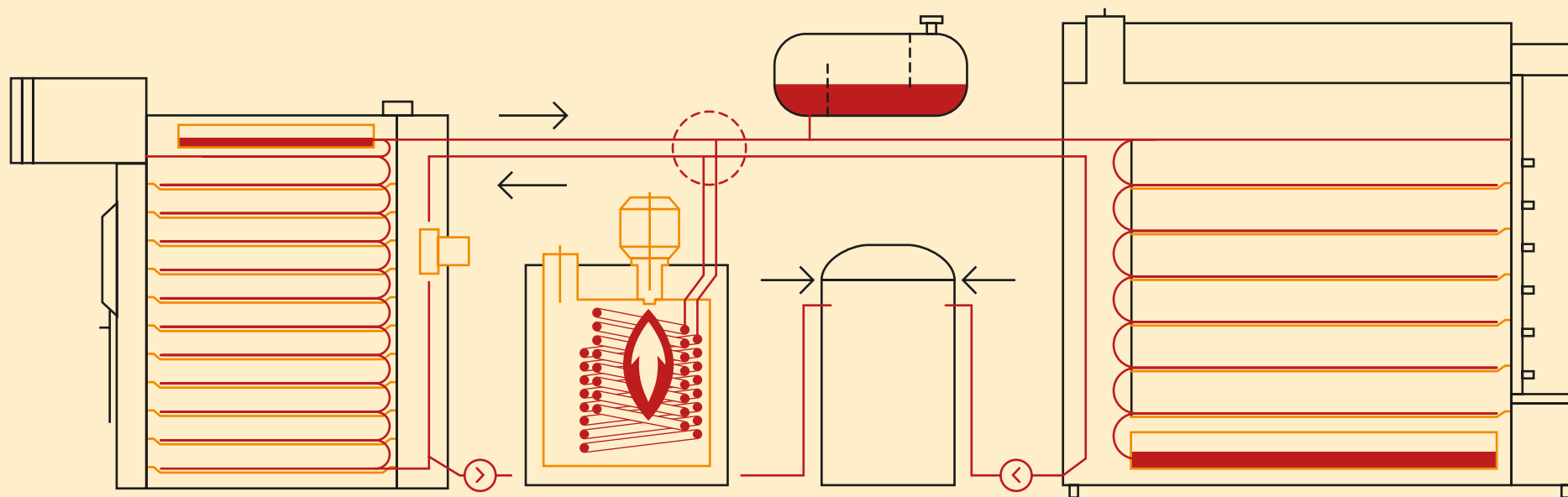
### Quadruple circuit

- four groups of decks with independent temperature curve
- four independent ovens
- four products baking



# Thermooil oven principle

Thermooil serves as a heat transfer medium between the thermooil boiler and the baking oven. Its properties ensure efficient transfer of heat energy and at the same time it serves as a good heat accumulator. Thermooil at 290 °C flows in the upper and lower radiators of the baking oven. Due to the minimal difference between the temperature of the oil itself and the temperature in the radiators (approx. 10–20 °C), we obtain a gentle radiant heat for baking for the best product quality.











ThermoStar with control panel Comfort



ThermoStar service access

# ThermoStar Classic

**ThermoStar thermooil deck ovens have quickly gained popularity among small and larger bakeries with a focus on high quality products.**

The compact ThermoStar Classic solution has the heating unit integrated directly into the oven, including the burner for the respective fuel, meaning that it does not need a thermooil boiler room. The solution allows for a short installation time, and at the same time an expressly fast start of the actual baking.



## Simple installation.

## Technical parameters

<b>Baking surface</b>	up to 26 m <sup>2</sup>
<b>Deck height</b>	230 mm / 300 mm
<b>Deck width</b>	1 800 mm
<b>Deck depth</b>	2 000 or 2 400 mm
<b>No. of decks</b>	4 to 6

## Benefits

- excellent temperature flexibility and stability
- uniformity of baking
- unique microcirculation of air in the deck
- perfectly baked crust
- economical baking with low energy consumption
- single-circuit design

## Accessories

### **EkoBlok** [p. 70](#)

Bake efficiently and protect the environment. By using the waste heat from deck ovens with EkoBlok, you can recover up to 20 % of the input energy, depending on the baking capacity. The recovered energy can be used to heat the digester or cool the space.

### **Asistent** [p. 32](#)

A deck oven without a loading machine would be as if it did not exist. The wide range of automatic loading devices meets the needs of small and industrial bakeries. We develop and manufacture our own loading devices.



# Variant

**Proven model series of cyclothermic baking ovens that have become a bestseller in Czech and Slovak bakeries. Variant can easily handle a wide range of doughs from loose wheat breads to dense rye breads. The ovens have good temperature flexibility with easy setting of baking and final temperatures.**

The adjustable flap system and the programmed baking ensure that each deck bakes evenly separately. Each deck in the oven is equipped with its own unit for the production of process steam, which it is able to generate every 10 minutes. The oven has a thick layer of insulation (350–400 mm), which prevents unnecessary loss of heat energy. The Weishaupt burners are at the cutting edge of the industry, both technically and ecologically. The heating medium can be either natural gas or fuel oil.

## Flexible and reliable.

## Technical parameters

<b>Baking surface</b>	8 to 35 m <sup>2</sup>
<b>Deck height</b>	200 or 230 mm
<b>Deck width</b>	1 200 or 1 800 mm
<b>Deck depth</b>	1 600, 2 000 or 2 400 mm
<b>No. of decks</b>	4 to 8

## Benefits

- proven model range
- good temperature stability and uniformity
- baking a wide range of breads
- powerful steaming
- universal use in all categories of bakeries

## Accessories

### EkoBlok **p. 70**

Bake efficiently and protect the environment. By using the waste heat from deck ovens with EkoBlok, you can recover up to 20 % of the input energy, depending on the baking capacity. The recovered energy can be used to heat the proofer or cool the space.

### Asistent **p. 32**

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Cyclothermic deck oven Variant









# Fornata

**Fornata electric deck ovens offer an alternative to gas ovens in areas with limited availability of natural gas or cheap electricity.**

With baking areas ranging from 4 to 30 m<sup>2</sup>, Fornata deck ovens are the solution for small bakeries, confectioneries and wholesale food stores. This universal electric baking oven allows independent baking of the entire range of bakery products at different time intervals on each deck.

Deck ovens are manufactured in 4–7 deck designs. For each deck, the upper and lower heating can be set independently in three power stages with precise temperature maintenance to ensure stable production quality. Individual steamer for each deck ensures even steaming for a perfectly glossy crust.

## Versatile.



## Technical parameters

<b>Baking surface</b>	4 to 30 m <sup>2</sup>
<b>Deck height</b>	200 or 230 mm
<b>Deck width</b>	1 200 or 1 800 mm
<b>Deck depth</b>	1 000, 1 600 or 2 000 mm
<b>No. of deck</b>	4 to 7

## Benefits

- independent baking of the range on each deck
- low electricity consumption
- option of 4 to 7 decks
- powerful ignition units for golden, shiny bread

## Accessories

### Asistent [p. 32](#)

A deck oven without a loading machine would be as if it did not exist. The wide range of automatic loading devices meets the needs of small and industrial bakeries. We develop and manufacture our own loading machines.

# Control and control systems for deck ovens

Clear control panels and intuitive user interfaces have turned baking into a simple activity. You always know exactly what is happening in the oven.





**So that bakers  
can just bake.**



# Basic

## Manual control

For smaller batch ovens and artisan bakers, we have developed the Basic control, which is a basic feature of every deck oven. The Basic control is a 7" color touchscreen display with large visible buttons that provides important information about the status of the oven. Basic is easy to use and intuitive.

- 99 baking recipes
- recipe name and number
- temperature curve for each deck
- baking time
- set/actual temperature
- start and batch for each deck
- automatic start of the deck oven

## Functions

- On/off function
- Automatic start of the deck oven
- Manual opening of doors and hoods

## Designed for

ThermoStar  
ThermoStar Classic  
Variant

## Size

up to 6 decks, in single or double circuit design



# Comfort

## Programmable touch screen

Comfort controls with a 10" color touchscreen and a wide range of user functions to make bakers' jobs easier and more efficient. New features include software updates via USB/ethernet, recipe transfer via USB or the ability to store up to 200 recipes. Automatic start, pneumatic opening of the hood and door and automatic ignition guarantee perfect baking results every day without the need for any adjustments.

The new controls provide maximum comfort for the baker and perfect visibility for the bakery owner.

- 200 baking recipes
- recipe name and number
- temperature curve for each deck
- baking time in each deck
- set/actual temperature
- start and batch for each deck
- automatic start of the deck oven
- Pneumatic opening of doors and hoods
- automatic ignition
- regulation of steam extraction

## Designed for

ThermoStar  
Variant  
Fornata  
ThermoStar Classic

## Sizes

up to 8 decks, in single, double or triple circuit design







# MultiControl

## Central control method

The MultiControl software is already widely known in both medium-sized and industrial bakeries. MultiControl, which we have developed ourselves, controls not only the baking ovens, the loading devices, but also all the peripheral equipment that is connected to the automatic bread line, i.e. the continuous proofers, the feeding tables, the moistening tables, the slicing equipment, the conveyors and the take-up tables that usually end the line.

The MultiControl is controlled by a powerful industrial computer with almost zero error rate. MultiControl therefore takes all the responsibility for you and significantly reduces energy and labor costs.

## Program functions

- Automatic door opening and closing
- Automatic dough loading
- Automatic product selection
- Dampening of products before and after baking
- Operation of the modular conveyor system
- Control of the continuous proofer
- Automatic deck vacuuming
- Ventilation of the space in front of the decks

## Designed for

Automatic Bread Lines



# Loading devices for deck ovens

A deck oven would not exist without a loading machine. A wide range of loading devices meets the needs of small and industrial bakeries. We develop and manufacture the loading devices ourselves; they speak the same language as deck ovens.







## What can Asistent do?

Asistent loading devices are an intelligent tool and a great help for bakers. They provide both dough loading and the unloading of bread and pastry from the individual decks using the MultiControl control system. Their movements and all functions are controlled by a computer system.

## Manual bread removal or the Asistent?

Unlike a baker, the Asistent not only operates several deck ovens at the same time, but it also makes the actual loading of dough and removal of bread from the baking ovens easier and faster. Depending on the size of the bakery and the required output, there are five types of Asistent loading device available.



# Asistent Manual

The Asistent Manual loading device is an intelligent tool whose all functions and movements are based on a mechanical base with a counterweight. It is a great helper for bakers, it can load and remove bread from the oven decks. It is suitable for 1-2 ovens in the half-deck version.

## Benefits

- Simple and quick oven installation
- Easy to operate
- Half-deck design
- Control: Basic

# Asistent SuperAutomat

The Asistent Super Automat loading device with a deck width of 1800 mm is one of the most requested accessories for deck ovens. It is a version with motorized travel and simple operation. This comfortable version is especially suitable for medium-sized bakeries.

By loading and baking small-size white pastries directly on the baking plates in the deck ovens, the products are tastier, softer and have a more baked crust.



## Benefits

- automatic bread dampening
- travel paths for operating multiple ovens
- automatic START of baking program
- pick-up bar for small-size baked goods
- Control: Basic, Comfort



# Asistent Com

The Asistent Com loading device ensures fully automatic loading and removal from deck without the need for human intervention. It is suitable for the operation of semi-automatic and automatic bread lines. It represents a more powerful device for medium-sized bakeries with a requirement for 100 % reliable operation.

**Suitable for operating up to three deck ovens with a maximum of nine decks.**

## Benefits

- higher model series
- ideal for high baking performance
- baking of small-size pastries from 50 g directly on the baking plates
- motorized travel × static positioning in single oven installations
- Control: Basic, Comfort, MultiControl

# Asistent Line

AssistLine automatic loading devices are the fastest loading option for fully automated MultiControl deck oven lines. They can accommodate up to 6 ovens with a maximum of 40 decks and are rated for 24-hour operation up to a capacity of 2 000 kg of bread per hour.



## Benefits

- Highest level of baking automation
- high baking performance in a small baking area
- possibility to fit up to 15 deck ovens
- designed for industrial operation
- loading and removal of bakery products from 50 to 2 500 g
- Control: MultiControl







Loading device Asistent Line

# Feed tables

Feed tables are multifunctional devices designed for quick transfer of dough to the Asistent loading devices. They also allow marking and automatic spreading. They are an intelligent and variable intermediate element for maximum performance of Asistent loading devices.

## Feed table AS-01

It is designed for manual tipping of dough from baskets. The dough is placed from the baskets onto the feed table belt, from which it is quickly transferred to the loading device

## Feed table AS-02

In combination with the AS-LIFT transfer table, it forms a unit for very fast transfer of small-size bakery products rising in trolleys on plates. The operator places the dough plates with the risen dough on the AS-LIFT, which is then moved to the loading device by means of an under-picking process.

## Feed table AS-03

It is primarily designed to transfer the dough from the continuous proofer to the Asistent loading device, which quickly places it into the deck oven. Thanks to the intermediate setting option, it can also be used for manual loading. The line thus combines automated operation with the possibility of manual production. The table is equipped with a pneumatic lifting of the operating surface and a cross travel to meet all the layout requirements of the bakery.







# Accessories for deck ovens

- Laser bread marking
- Modular belt conveyors
- Take-off conveyors
- Rotary table
- Bread counter
- Robotic bread removal
- Spiral slide – tobogan
- Dampening conveyors









## Belt conveyor

The loading assistant removes the baked bread from the oven and transfers it to the conveyor belt. The conveyor transports the bread or pastry directly to expedition without the touch of a human hand. The conveyor belt function is fully automated and perfectly synchronized with the other components of the production line.

## Take-off conveyors

The conveyor section with a separate drive and infinitely variable speed control is used to remove the baked bread from the conveyor. This is the most space-saving version.

## Rotary table

The end device for removing bread from the production line, working on the principle of a rotary table with a batch capacity of one deck.

### Benefits

- higher model series
- ideal for high baking performance
- baking of small-size pastries from 50 g directly on the baking plates





## Bread counter

The bread counter records the exact quantities in terms of number of pieces and assortment and then sends them to the central database of the bakery and displays them on the monitor that is part of the equipment. The baked bread rotates on counter-rotating conveyor belts and outputs bread in a row. The sequential removal is controlled by an end sensor. The gradual removal is controlled by the end sensor.

## Spiral slide

The toboggan allows the bread conveyor to drop short distances from the conveyor's base height to the working position for removing bread from the turntable or bread counter.

- Vertical bread transport
- Custom-made production
- Height transport 1,5–6 m

## Dampening conveyors

After baking the finished products, dampening is required, which affects the quality of the bakery products themselves. Dampening conveyors ensure that the bread is moistened after it is removed from the oven. This improves the character of the crust and adds shine to the product. For more information on dampening, please see the separate chapter on p. 66.



# 02

## Rack ovens

Thermooil rack ovens work in the same way as deck ovens. The combination of radiant heat and baking on the trolleys is ideal for baking pan loaf that need power for a perfectly cooked crumb or for baguettes that gain in softness.





### **Purpose**

Rack box ovens are nowadays one of the basic equipment of modern bakeries of all categories. They are mainly designed for baking of regular and sweet pastries, confectionery and durable bakery products.

### **Benefits**

- Large baking area in a small space
- Easy production
- Extension of intermittent rising bakery production with stopper and shock freezing



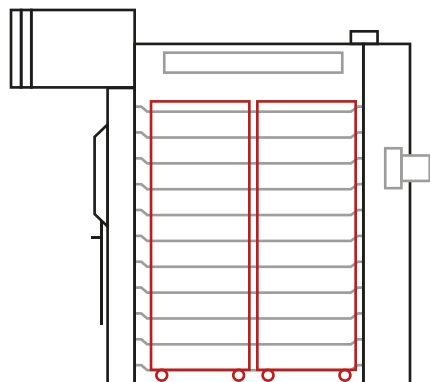
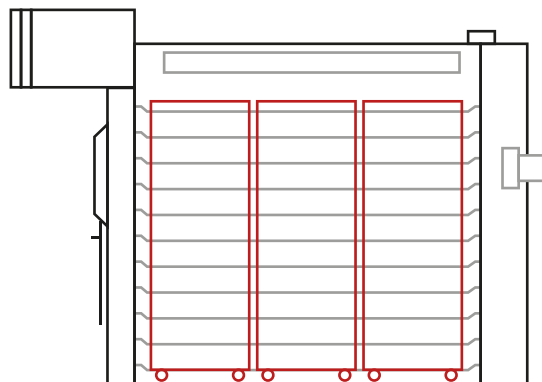
# ThermoMax

**ThermoMax rack ovens are one of the stalwarts of our bakers. Operation is easy and intuitive with a new control panel with a 10" color touch screen that is 4 times larger than the previous one.**

As with deck ovens, a wide range of functions can be set in the user interface to make baking simple and minimize human error.

## Benefits

- Baking with gentle radiant heat
- Ideal baking uniformity
- Maximum temperature stability
- Ideal temperature distribution and its curves for each assortment of bread products
- High baking performance on a small ground plan
- Baking rack after rack

**Two rack design**size 9–14 m<sup>2</sup>**Three rack design**size 18–21 m<sup>2</sup>**Operation**

- 200 baking recipes
- recipe name and number
- temperature curve setting
- set/actual temperature
- automatic ignition
- recipe transfer via USB
- software update via USB
- automatic door opening





# ThermoMax Compact

**The ThermoStar Compact model range of thermooil rack ovens with an integrated boiler is designed for bakers with limited space in the bakery.**

## **How the ThermoMax Compact works**

The ThermoMax Compact thermooil rack ovens work on the principle of radiant heat, which prevents the baked goods from drying out and thus increases the quality of white and ordinary baked goods such as rolls, buns and baguettes. For form and specialty breads, ThermoMax Compact offers maximum temperature stability to ensure the desired performance and a well-baked crust.



## Benefits

- lower energy consumption compared to a central boiler system
- radiant heat baking - trolley handling
- Ideal temperature distribution and precise temperature curves for each range of baked goods
- micro-circulation of air for crust and coloring
- high baking performance in a small footprint
- quick installation





# RotoMax

RotoMax rotary ovens are a reliable way to bake a wide range of bakery products with guaranteed temperature stability. The all-stainless-steel design of the oven not only guarantees a long lifetime of the oven, but also the possibility of 24/7 operation with constant baking quality. The heating medium is natural gas, heating oil or electricity.

## Robust rotary oven.



## Benefits

- Universal rotary oven for a wide product portfolio
- Very strong heat exchangers for trolley-by trolley baking
- Precise airflow control
- Robust oven body
- Simple and clear control panel
- Automatic door closing
- Service access from the front



# 03

## Tunnel ovens

For the production of large batches of one type of bread or muffins, the thermooil tunnel oven offers a unique combination of high performance with baking quality and low energy consumption. In classic or compact design. Each belt oven is made to measure.











**Powerful and  
efficient baking.**

# ThermoLine

**The ThermoLine thermooil oven is an energy-efficient solution for baking large batches of the highest quality bakery products such as buns or rolls.**

Thanks to the ThermoLine's gentle radiant heat, baked goods stay moist longer and are still indistinguishable to customers from products from the old and cost-intensive cyclothermic tunnel ovens.

The operation of ThermoLine thermooil tunnel ovens is very simple and fully automated thanks to the MultiControl control system, which provides a perfect overview of what is happening in the bakery 24 hours a day and online.

## Benefits

- radiant heat baking for continuous production of bakery products
- ideal temperature distribution
- low input energy consumption
- precise control of steam pressure and intensity of top and bottom baking
- MultiControl control

## Thermooil boiler

An essential part of the classic ThermoLine tunnel oven is a thermooil boiler, which must be installed outside the bakery in the boiler room. The advantage of this solution is the possibility of connecting bunk or trolley ovens to the system.



# ThermoLine Compact

The ThermoLine Compact thermooil tunnel oven is as compact as possible due to the installation of the thermooil source directly on the oven. The thermooil boiler, which provides heating of the oven and the entire system, is located on the belt oven. This is a very efficient and economically advantageous solution.





## Technical design

The concept of the whole oven is designed as a modular design composed of individual blocks.

The ovens are delivered to the bakery in the form of finished insulated blocks. In the bakery, only the connection of the blocks with thermooil piping, wiring and installation of the baking belt is carried out. Installation takes about 7-10 days. The length of installation depends on the readiness of the building and the media.

## Benefits

- Excellent temperature flexibility and stability
- Radiant heat baking for continuous production of bakery products
- Ideal temperature distribution and precise temperature control
- Easy to change the range of bakery products
- Temperature curves for each range of baked goods
- Low input energy consumption thanks to the thermooil energy transfer system.
- MultiControl control



# 04

## Proofing and dampening

To ensure that the dough rises properly at the optimum temperature and humidity, climate-controlled proofers are used. They ensure optimum conditions for the rising process, which gives bread and pastries the perfect shape and appearance.

Dampening the dough just before it is placed in the ovens or continuous tunnel ovens affects the quality and gloss of the bakery products themselves.











# Box proofers

**To ensure that the dough rises properly at the optimum temperature and humidity, climate-controlled proofers are used. They ensure optimum conditions for the proofing process, which gives bread and pastries the perfect shape and appearance.**

We manufacture the proofers directly for our customers. They have an all-stainless steel interior including doors and floor. The correct temperature and humidity is ensured by an electric air conditioning unit that regulates the correct air circulation.

## Technical specifications

- program control and management
- heating from oven waste heat
- re-use of steam from deck ovens



# Continuous proofers

Continuous proofers are a great tool for full automation of the baking process, always tailor-made whether you are proofing bread or ciabatta.



## Universal proofers for bread and pastry

### Proofing on baking trays

- Ideal for making sweet pastries, baguettes and specialty products
- Automatic loading onto and removal from baking trays
- selectable proofing time from 40 to 120 minutes
- designed for trolley and belt ovens

### Board proofers

- developed for free-rising wheat products such as ciabatta, pizza, etc.
- fully automatic operation with high product variability
- free rising on plates with automatic loading and removal of risen products
- fixed or variable rising time (40–120 minutes) at a lower temperature, e.g. 25–26 °C

### Proofers for the production of common bakery products

- production of rolls, buns and bread rolls



# Proofers for bread making

## Basket

- suitable for rye and rye-wheat breads
- rattan baskets of various sizes and shapes
- gentle tipping from a minimum height while maintaining the correct shape
- working width 1 800–3 000 mm

## Continuous with troughs with textile insert

- designed for mechanized production of wheat products and batards
- output from 800 to 5 000 pieces of product per hour
- working width 1 800–3 000 mm

## Benefits

- the highest level of industrial automation in bakeries
- everything controlled by the MultiControl control system from proofing to handling of finished products – also suitable for loose doughs with high water content and high porosity
- low energy costs for operation

## Technical solution

- Load-bearing frames of proofers in a galvanized or stainless steel\* design
- Suspension baskets for products in a stainless steel design
- Baskets by choice (plastic, rattan, with/without textile insert)
- Cladding made of stainless steel PUR panel
- Numbering program for the suspensions for easily changing the time of proofing
- Automatic scoring, moistening, seeding\*
- Drying baskets for the thorough destruction of bacteria\*
- Automatic cleaning of baskets for the highest standard of hygiene\*
- Ultrasonic humidification or from the central steam distribution
- Easy maintenance
- Central automatic lubrication of drive chains

\*on request

# Dampening

## Dampening box

The VB 100 dampening box is used for dampening bakery products mounted in the baking trolley of rotary ovens. It is used both for dampening risen doughs before baking and for dampening products after baking.

### The 5 main reasons why to opt for dampening boxes

- Quick and easy dampening
- Even dampening
- Clean and hygienic operation
- Adjustable water quantity
- Unused water flows down the drain

## Dampening conveyors

After baking the finished products, dampening is required, which affects the quality of the bakery products themselves. Dampening conveyors ensure that the bread is moistened after it is removed from the oven. This improves the character of the crust and adds shine to the product.

## Dampening bar

The dampening bar is used to dampen the dough before baking. Through a fine mist, it ensures perfect moistening of the entire product. Can be used on all types of products.

## Dampening table

The dampening table, which is used to moisten the dough before baking, is placed between the feeding table and the setting device, thus ensuring perfect dampening of the dough. According to the customer's needs, it can be equipped with jet or brush dampening. After baking, the breads are dampened on the dampening conveyor.





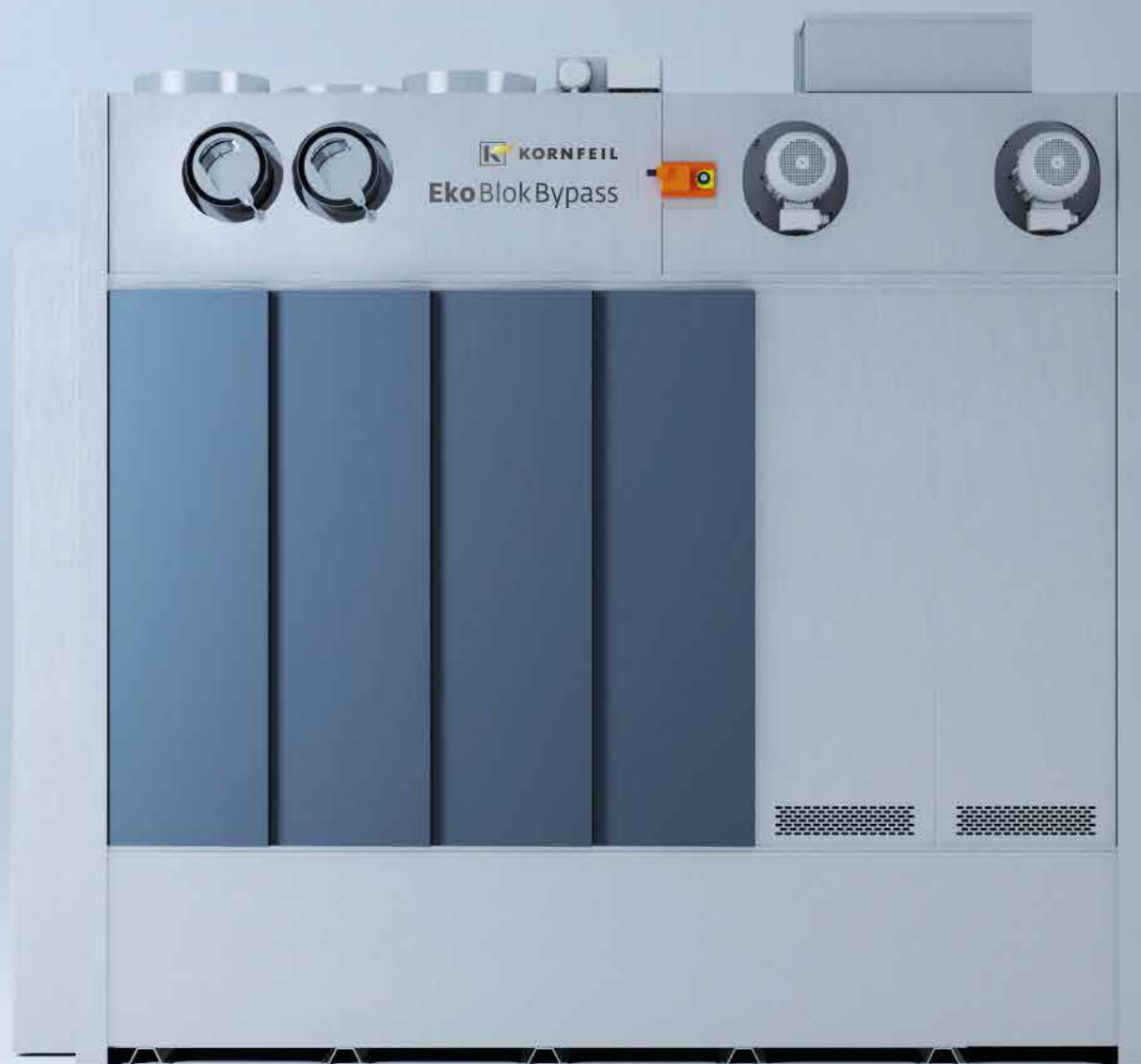
05

# Technology

For maximum efficiency in the operation of the bakery without energy losses, we offer a tailor-made equipment that can save up to 25 % on the input energy for baking products, regulate the extraction of steam and flue gases and, in addition, operate the bakery in an environment friendly way.



**Use the energy  
of your bakery  
efficiently**



# EkoBlok Bypass

**EkoBlok provides complete treatment and recovery of waste energy, flue gas and steam from gas and oil bakery ovens as well as from steam and thermoil boilers.**

The waste energy is recovered in the form of hot water at a temperature of approx. 80 °C. EkoBlok reduces pollutants from the flue gases of the individual ovens, including CO<sub>2</sub> emissions, by means of so-called showering.

## How does EkoBlok work?

By showering the flue gases, it mainly eliminates sulphur and sulphur-like substances, including soot, and thus protects the air from acid rain. The outlet air temperature of the EkoBlok is reduced to a level of 50 to 60 °C. The use of EkoBlok means that the input energy is 93–94 % used in modern deck and trolley ovens and 84–86 % in belt ovens. The energy from the flue gases and the condensation heat of the steam is converted into 80 °C hot water and stored in separate storage tanks for further use. The EkoBlok recovers 20–30 % of the input energy for heating and cooling purposes.

## Functions of the EkoBlok

- Heating water temperature control.
- Measurement and evaluation of waste heat.
- Graphical representation of temperatures and performance.
- Operating conditions of the equipment.
- Safety of operation.

## EkoBlok ExtraSteam

- Separated flue gas and steam.
- No steam cleaning effect.
- 2 energy outputs.
- 80/60 °C service water.
- Hot clean water 60–90 °C.

## EkoBlok Steam

- Designed to process exhaust steam.
- No steam cleaning effect.
- Hot clean water 60–90 °C.
- 1 chimney from the bakery.

# Efficient use of energy.

# **Up to 95% steam recovery in bakeries**



**Filtration of organic impurities  
from the bakery**



# Deodorant

**A huge amount of energy is generated during the baking process, which can then be reused.**

The Kornfeil Deodorant is installation for cleaning exhaust steam and heat recovery, that uses unused waste energy of the bakery to the maximum and at the same time eliminates typical odour of bakeries, that has so far prevented the construction of new projects in urban agglomerations.

## Benefits

- During the baking process, an enormous amount of energy is generated. This energy can be reused again.
- Elimination of typical bakery odor.
- Thanks to the removal of organic substances from the exhaust steam, only warm and humid air, which does not burden the environment, leaves the bakery.
- Can be connected to any belt oven.
- Each energy project is individually designed.
- Thanks to the connection of the entire energy system to Kornfeil DEODORANT, the bakery needs only one exhaust chimney.

# Heat recovery and elimination of bakery odors.

# BioTherm

**The BioTherm thermooil boiler offers an environment friendly and economical way to heat thermooil ovens. Instead of fossil energy sources, it uses natural waste material such as wood chips or pellets.**

Above all, these are cheaper energy sources such as waste from the surrounding countryside and wood from forests. The BioTherm boiler makes the bakery independent of natural gas and other fossil fuels.

## Why BioTherm

- ecological and convenient heating of baking ovens
- heating medium independent of fuel oil and natural gas
- energy saving
- high operating comfort
- energy-saving equipment

# Ecological heating.







Technical specifications [↗](#)

Any amendments reserved.



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