



# COLUMBUS

The giant oven for baking performance and flexibility

**WACHTEL**

Found in the best bakeries of the world





## Maximum baking space, minimum floor space

The COLUMBUS deck oven offers premium baking in a static atmosphere and is available with oil or gas firing as required.

For decades, the COLUMBUS has been highly regarded for its performance and remarkable energy efficiency. Its design is compact and space-saving and at the same time it is optimally equipped to cope with larger requirements and a versatile range of bakery products. The COLUMBUS E 924/432 T COMFORT, for example, has a sizeable loading capacity. It offers a total baking surface area of 43.2 m<sup>2</sup> over nine decks

(2.0 m wide, 2.4 m deep). Two outstanding innovations that have enabled the company to get ahead are the patented deck group management systems VARIOMAT and TRIOMAT: These make it possible for a variety of bakery products to be baked at different temperatures at the same time.

We would like to introduce you to these and other progressive developments to enable you to use energy economically and bake goods of unmistakable quality.



# COLUMBUS E TRIOMAT COMFORT

At a glance

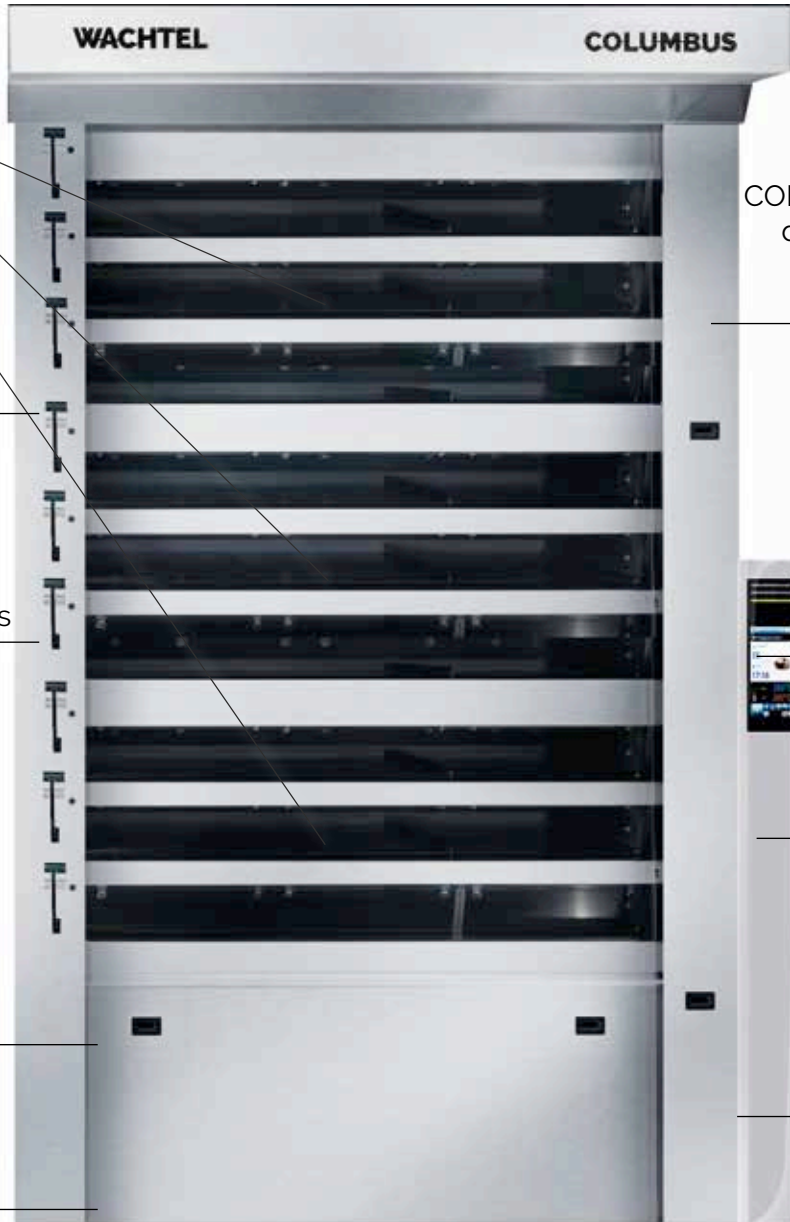
TRIOMAT:  
3 deck groups  
3 temperatures  
3 types of baked goods

Parallel radiators

Can be built-in on 3 sides

Modulating burner

High-performance  
steam generator for  
each deck



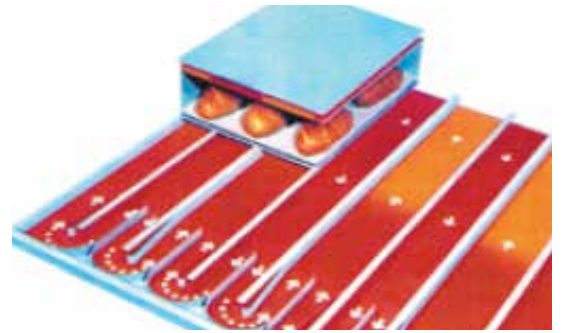
COLUMBUS E: Triple-width  
deck oven, up to 43.2 m<sup>2</sup>  
baking surface area  
over 9 decks

  
Control

  
Remote access

COMFORT:  
Loader options for the  
automated bakery

COLUMBUS E 924/432 T COMFORT



#### Parallel radiators

Ideal prerequisite for completely uniform and energy-efficient heat dissipation, perfect baking characteristics for all baked goods at any time



#### Core parts welded gas-tight

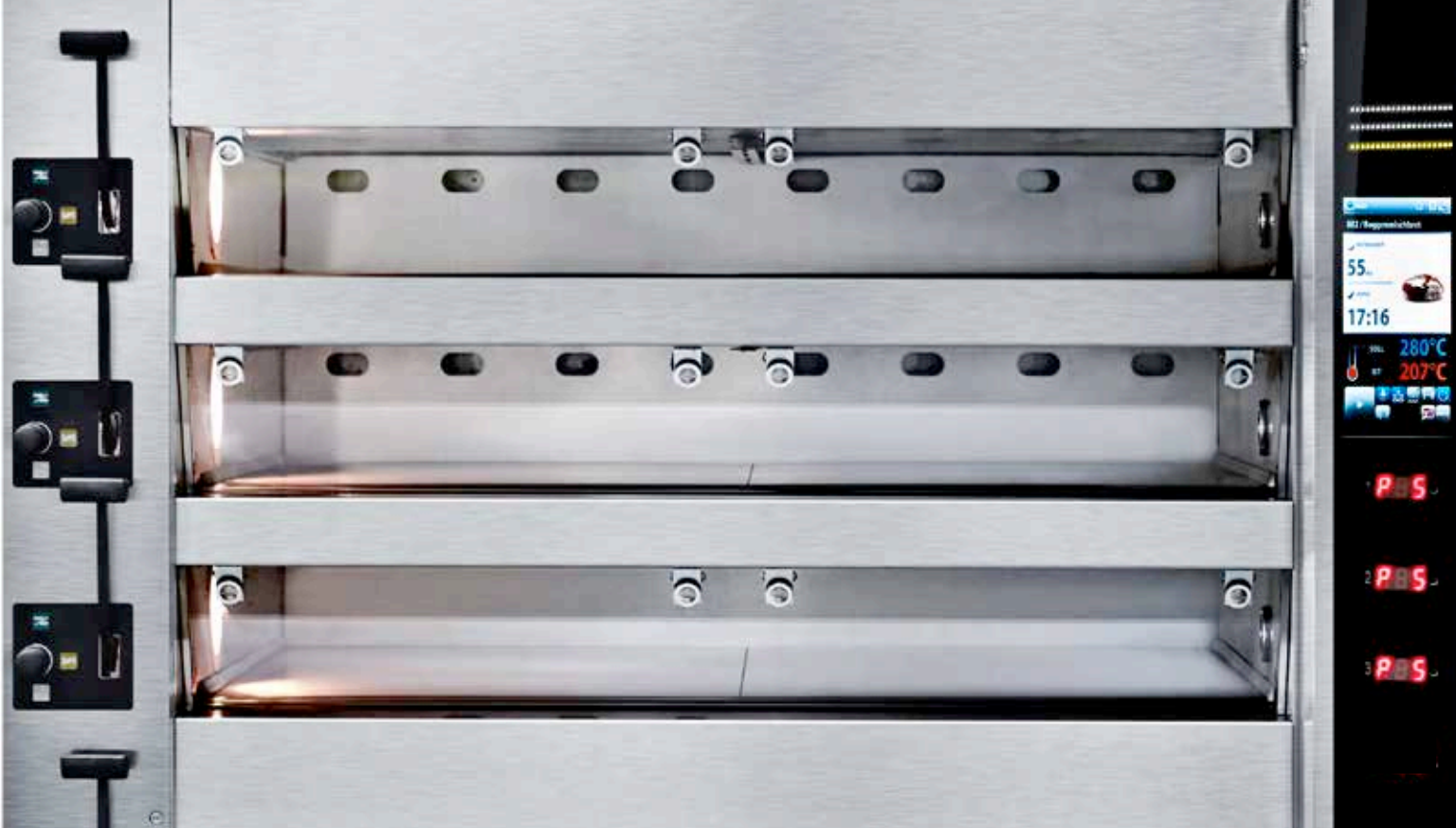
No use of wear-prone screw connections or seals for extra safety and durability



#### Easy maintenance

Can be built-in on three sides and ergonomically designed: All key service units can be accessed quickly and easily from the front





### Deck group management system | Patented in 1974

MONO	1 temperature for all decks
VARIOMAT	2 deck groups, 2 temperatures, 2 types of baked goods
TRIOMAT	3 deck groups, 3 temperatures, 3 types of baked goods

## VARIOMAT & TRIOMAT

**Would you like more flexibility when it comes to designing your baking space, along with considerable energy savings potential?**

The COLUMBUS VARIOMAT or TRIOMAT is an oven with either 2 or 3 heating gas systems that are independent of one another, combined with a 2-stage or modulating burner. What does that mean? It means that a variety of bakery products can be baked at different temperatures at the same time. On the VARIOMAT there are 2 temperatures and on the TRIOMAT there are 3 temperatures. This means that the individual deck groups are heated and loaded independently of each other. It is up to the baker whether he wants to use the full capacity

or, in response to lower demand, to put the oven into "economy baking mode" by simply switching off 2 of 3 deck groups (TRIOMAT) and continuing to bake with only one deck group. The burner technology (2-stage or modulating) helps saving energy, because the heating capacity is automatically adjusted to the heating demand. In addition to the burner capacity, the heating gas circulation is also regulated via a 2-stage circulation system in accordance with the baking surface area in use. The modern insulation technology between two deck groups guarantees that the deck groups barely influence each other (guaranteed temperature difference 30 °C or 60 °C on the O model).



## WACHTEL specials:

### ICT: Infrared Ceramic Technology

ICT denotes the use of an infrared ceramic specially developed for use in the bakery trade in the baking chamber. It optimises conventional thermal radiation: the infrared ceramic emits infrared radiation whose wavelength is perfectly tailored to the requirements of bakery products. This infrared is able to penetrate directly through the skin of the dough piece into its core. It enables the required temperature of the dough piece core to be attained more quickly. Thanks to ICT, you can increase the enjoyment value and freshness of your baked goods and save energy and costs at the same time.

- Up to 30% less baking losses
- Up to 10% more volume
- A moister crumb
- An extended shelf life
- Consistent pore distribution, even at the edges
- A beautifully browned crust
- A tender, flaky crust
- Up to 10% less flour consumption
- Energy savings of up to 30%



### STONE: Stone oven arched fireclay chamber

Stone-baked bread is what people imagine as the very archetype of bread. On request, we will equip the COLUMBUS with real fireclay bricks. The special shape of the baking chamber and the optimal heat storage capacity of the bricks make it possible to produce authentic stone-baked bread with its unmistakable taste and rustic appearance. As in the old era of baking, products can be baked at decreasing temperatures without reheating.

### W-TURBO: Thermal radiation plus convection

The W-TURBO feature combines the benefits of two forms of heat transfer: the static baking atmosphere in the deck is set in motion by circulators. An effective pre-baked effect can be achieved by switching it on immediately at the start of the baking process. Essentially, the bakery products benefit from improved oven spring and an all-round uniform crust that is extra-crisp. W-TURBO can be implemented for individual decks. This means that products with a crispy crust can be baked in the same oven along with less crusty baked goods.

# COLUMBUS CO VARIOMAT

At a glance

COLUMBUS C:  
Double-width deck  
oven, up to 14.4 m<sup>2</sup>  
baking surface area  
over 6 decks

High-performance  
steam generator  
for each deck

Parallel radiators

JOYSTICK:  
Program start/stop  
Steam injection  
Steam extraction  
W-TURBO (optional)



Two-stage burner



O-model:  
burner and  
circulation fan top

Can be built-in  
on 3 sides

VARIOMAT:  
2 deck groups  
2 temperatures  
2 types of  
baked goods

Self-supporting  
pull-out decks

COLUMBUS CO 520/120 V A2



### As intuitive and user-friendly as your smartphone

- 999 automatic programs (10 phases)
- Large TFT graphic display
- Touch function, even works with flour-dusted hands
- Graphic display of temperature profiles
- Individual user customisation with regard to menu, product photos, signals and customer logo
- AUTO COPY: Synchronisation of baking programs between appliances at the touch of a button
- Display lock for cleaning purposes
- Network-compatible and free updates
- Link to WACHTEL REMOTE: Remote access management tool for the PC or tablet
- Tutorial mode: video tutorials in the controller itself

### GREEN LABEL energy-saving package:

- SMART START: "Effective" ready-to-bake function (oven is fully heated up)
- STANDBY ECO: Standby mode with adjustable "resume ready-to-bake time"
- ECO SAFE: Automatic temperature reduction in the event of unexpected periods of non-use





# COLUMBUS HIGHLIGHTS

## Huge baking capacity, small footprint

COLUMBUS E 924/432 T COMFORT: Triple-width deck oven, 2.400 mm deck depth, 9 decks for up to 43.2 m<sup>2</sup> total baking surface area

## Energy-efficient burner technology

Two-stage or modulating burner for fast heating-up processes and energy savings thanks to automatic power adjustment to the heating demand, e.g. in the case of partial loads

## Parallel radiator system

Consistent heat distribution, uncompromising uniform baking results and high energy efficiency (firing efficiency approx. 90%)

## Generous supply of steam

High-performance steam generator for each deck with 8 mm thick-walled steam pipes directly attached to the firing area

## Baking on stone

Deck areas made of specially developed mineral stone with optimum heat storage capacity

## All-round stainless steel panelling

Maximum hygiene, easy cleaning and long-term maintenance of value

## High level of operational safety

Corrosion-resistant decks made of hot-dip aluminised sheet steel, gas-tight welded with no screw fittings or seals that are susceptible to wear

## JOYSTICK

Enables two-sided oven operation and fast, straightforward manual influence over the baking program

## IQ TOUCH

Smart, network-capable control technology with touchscreen and 9" graphic display



## IQ GREEN LABEL

Energy-saving functions built into the IQ TOUCH control technology with standby mode and baking standby times



## WACHTEL REMOTE



Immediate, web-based remote access to the key operating data and processes of networked WACHTEL systems across all sites

## Variants:

### VARIOMAT & TRIOMAT

Deck group control system for baking a variety of baked goods at the same time and for saving energy due to demand-oriented switching on and off of decks

### W-TURBO

On-demand, moving deck atmosphere that is balanced over time, offering more crispness, an all-round uniform crust and an extended range of baked goods (thermal radiation and convection)

### ICT (Infrared Ceramic Technology)



Infrared ceramics for optimising the thermal radiation to achieve reduced baking losses, bigger baking volumes, an extended shelf life and significant energy savings

### STONE

Traditional stone-baked bread from the arched fireclay baking chamber

### COMFORT

Special design for fully-automated operating processes with loaders and unloaders from the COMFORT range

### O-model

Burner and circulation technology arranged above the decks to optimise operator ergonomics for manual loading and unloading, especially in combination with pull-out decks

### Pull-out decks

Self-supporting, fully extendable pull-out decks with no annoying support arms, offering a comprehensive overview and labour-saving work





## COLUMBUS without loader

	<b>C</b>	<b>E</b>	<b>CO</b>	<b>EO</b>
Location of burner and circulation fan	bottom	bottom	top	top
Number of decks	4-5	4-5	5-6	5-6
Deck dimensions [mm]	Width	1200	1800	1800
	Depth	1600/2000	1600/2000	1600/2000
	Height	165/205	165/205	165/205
Number of deck groups	1 - 2	1 - 2	1 - 3	1 - 2
M = MONO, V = VARIOMAT, T = TRIOMAT	M, V	M, V	M, V, T	M, V
Baking surface area [m <sup>2</sup> ]	7.7 - 12	11.5 - 18	9.6 - 14.4	14.4 - 21.6
Oven dimensions [mm]	Width	1620	2220	1620
	Depth	2380/2780	2380/2780	2780/3180
	Height	2345	2345	2700
Heating type	Gas/oil	Gas/oil	Gas/oil	Gas/oil

## COLUMBUS COMFORT with loader

	<b>CO</b>	<b>E</b>	<b>EO</b>
Location of burner and circulation fan	top	bottom	top
Number of decks	6	9	6
Deck dimensions [mm]	Width	1200	1800/2000
	Depth	2000/2400	2000/2400
	Height	230	230
Number of deck groups	1 - 2	3	1 - 3
M = MONO, V = VARIOMAT, T = TRIOMAT	M, V	D	M, V, T
Baking surface area [m <sup>2</sup> ]	14.4 - 17.3	32.4 - 43.2	21.6 - 28.8
Oven dimensions [mm]	Width	1700	2600 *
	Depth	3180/3580	3040/3440
	Height	3050	4220
Heating type	Gas/oil	Gas/oil	Gas/oil

\* Without control cabinet

## COLUMBUS CO 520/120 V H A2



## Premium baking technology since 1923

WACHTEL is the tradition and future of baking technology. We are proud of our role as a trusted partner of the bakery trade supplying our Made in Germany baking ovens, loaders and cooling systems since 1923. Quality and attention to detail is our aim; the art of engineering is our driving force; service to the customer is our passion.



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