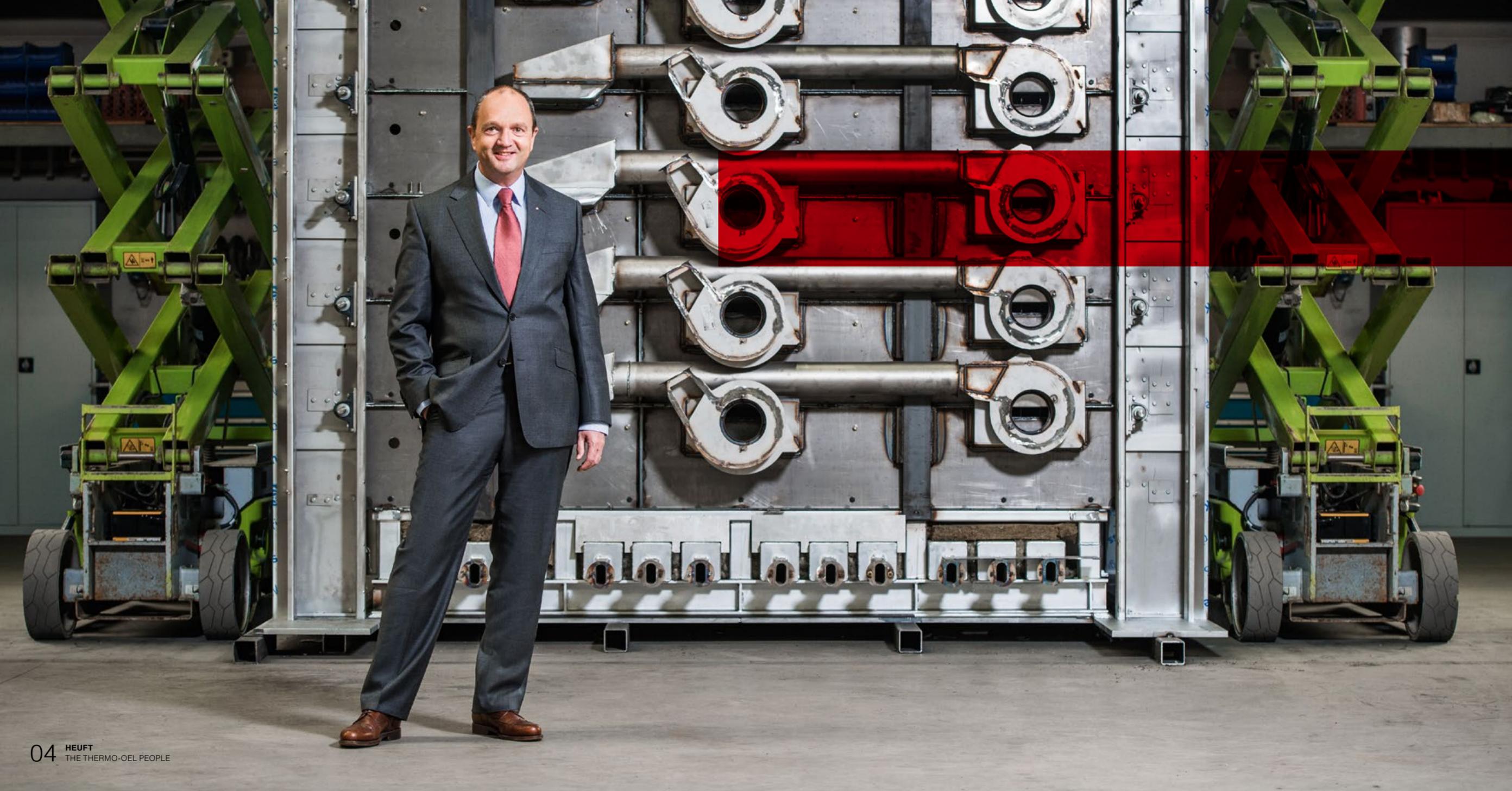




HEUFT
THE THERMO-OEL PEOPLE

About Heuft	04	Trolley ovens	20
Heuft international	08	Rotating rack oven	26
Heuft history	12	Deck ovens	28
Heat exchanger	14	Large ovens	36
Thermal oil	15	Heat integration systems	40
Thermo-Oel Bakers	16	Heuft service	42

Contents



OUR OVENS ARE WORLD RENOWNED!

BAKERS IN MORE THAN 20 COUNTRIES RELY ON OVEN SYSTEMS FROM HEUFT.

Heuft has been building ovens for eight generations. Based on our extensive know-how and experience, we were among the first to specialize in thermal oil systems, and use this advanced technology in our small and large ovens, our standard models and custom-engineered units. Every Heuft thermal oil oven is a premium product designed to give our customers a competitive edge. Thermal oil as a fluid heat transfer medium guarantees constant and evenly distributed oven heat from the first to last – for consistent and reproducible product quality. As passionate baking oven manufacturers, we are always seeking to improve our products, as we want to offer our customers real added value. For example, by increasing the degree of automation and the energy efficiency of our ovens and including more customized options in our product portfolio. Our family business based in Bell, Germany, has been embracing new ideas and innovation from the onset. Despite our global outlook and ambitious innovation, we have always remained true to our tradition of excellence in craftsmanship. We take responsibility for our actions and believe in sustainable business practices. We strive to establish fair and personal partnerships with all our business partners!



PRESENT ALL OVER THE WORLD.

HOME IN THE VULKANEIFEL MOUNTAINS

OF GERMANY. IN BUSINESS

FOR MORE THAN 300 YEARS.



German oven builders have an excellent reputation worldwide. "Made in Germany" stands for quality engineering and craftsmanship. When it comes to thermal oil ovens, the top quality mark goes however to products "Made in Bell", which is synonymous with advanced manufacturing technology and unrivalled reliability. Heuft ovens are found in modern bakeries all over the world. The success of the family-run company is rooted in a tradition of dedication to craftsmanship that extends over 300 years. Experience is the sound foundation of our group on which we develop future-proof innovations that revolutionize the industry. Heuft is a global company with strong roots in the local community.

HEUFT INTERNATIONAL

“I am proud of being part of a renowned global business that is also the oldest existing baking oven manufacturer worldwide.

From the company’s foundation in the 1700s, each generation of oven builders stayed true to its craft while being open to new ideas.

That is why Heuft is able to offer premium quality products packed with advanced technology.

Every day, we work hard to meet the expectations of our customers.”

Thomas Heuft, managing director and shareholder of the Heuft Group

1700

Construction of first baking oven made from Tuff stone mined in Bell, Vulkaneifel

1946

Development of steam-tube ovens. Launch of VULKAN brand, a reference to the Vulkaneifel Mountains known for their rich Tuff stone quarries that made the area particularly attractive to oven builders.

1968

Launch of first VULKAN thermal oil oven

1988

Construction of first VULKAN THERMO-ROLL® trolley oven

1995

Launch of CONCORD® oven loading system

1998

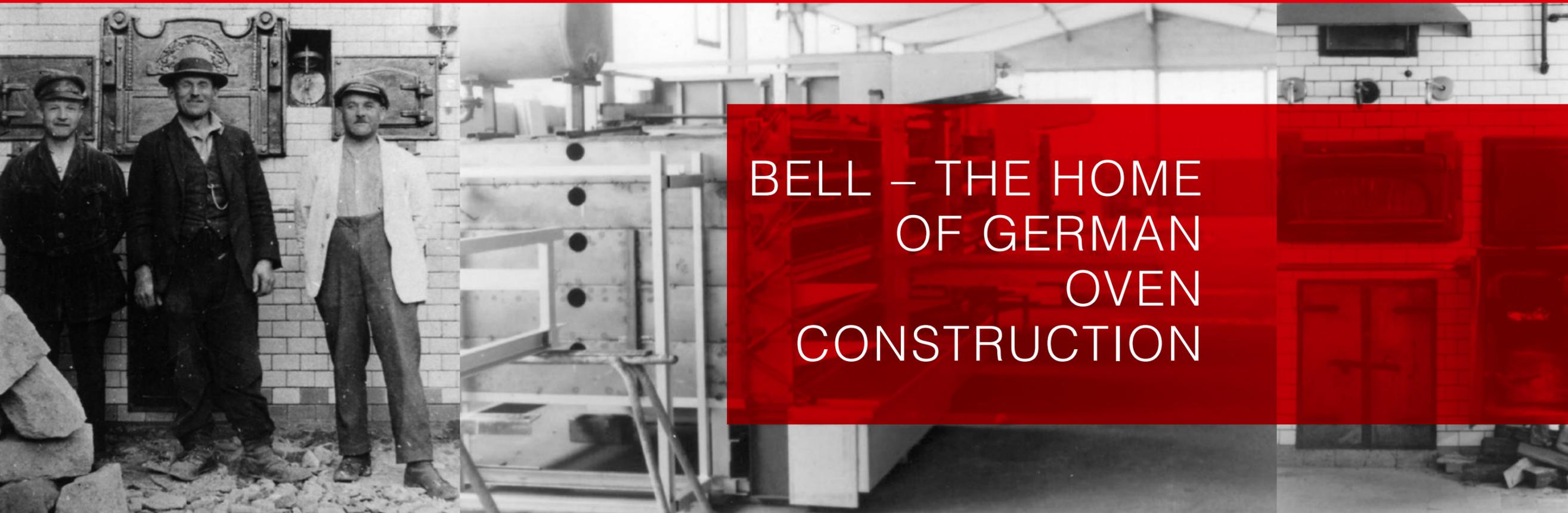
Production of first series of large ovens

2010

Complete automation of VULKAN stone plate trolley oven

2016

Commissioning of first thermal oil rotating rack oven



BELL – THE HOME OF GERMAN OVEN CONSTRUCTION

The first oven builder of our dynasty was Martin Heuft. As his trade did not yet have its own guild in 1700, he called himself a stone mason, as the Andernach town records show. Today and seven generations later, Heuft is among the best known oven builders worldwide. The company is the market leader for thermal oil baking ovens and has repeatedly set new standards in the industry. As a global player, we supply customers all over the world.

Although Heuft has grown considerably over the last few decades, it is still very much a family business that enjoys the trust and loyalty of its workforce. Heuft has always been dedicated to innovation. Relying on expertise acquired over more than 300 years, we seek to offer our customers the best possible solutions – in oven design, compact sizing and integration of heat exchanger units and the planning of highly efficient heat integration systems. We are well versed in these fields of engineering so that we can offer everything from a single supplier, acting as HEUFT – THE THERMO-OEL PEOPLE. The Vulkaneifel region is thus not only the traditional home of German oven building but also the region in which its future is being shaped.

THE THERMAL OIL SYSTEM: HEUFT HEAT EXCHANGERS

The principle behind the Heuft heat exchanger is actually very simple: similar to radiators in modern central heating systems, one or more ovens are supplied with heat from a central heat exchanger installed in a separate heat exchanger room and dimensioned to suit the bakery. This arrangement has many advantages: the noise level in the bakery is reduced, there is no need for additional burners and flues and the heat exchanger is protected from steam and flour dust, which prolongs its service life and improves its efficiency. In addition, the system is extremely cost and fuel-efficient and can be customized for various fuels from oil to biomass. However, efficiency is only one aspect of a good bakery. Equally important are optimized baking conditions inside the oven for as many different products as possible – and that is where thermal oil is simply unbeatable.



HEAT EXCHANGERS

THERMAL OIL

BAKING IN THERMAL OIL OVENS

Throughout our company's history, we have been at the forefront of new concepts in oven construction. And there are many good reasons for our focus on thermal oil technology. We simply love the fact that this unique heat transfer medium enables us to come up with solutions that are not only cost-effective but also produce excellent baking results. Our units can be heated up quickly, are extremely energy-efficient and guarantee uniform heat distribution throughout the oven chamber. During the baking process, the thermal oil circulates at a constant temperature of up to 300 °C through the oven system. The heat retention capacity of thermal oil that is about 2700 times greater than that of other heat transfer media, minimizing the

temperature difference between the transfer medium and the oven chamber. The ΔT value in thermal oil oven systems is therefore significantly lower than that of other baking systems. As a result, the heat is transferred evenly and gently to the products in the oven. Feedback from our customers shows that they are delighted with this specific aspect of our ovens. There are however many more advantages to thermal oil baking technology: during baking, the products do not dry out as much as with other heating systems. Loaves, bread rolls and yeast-based pastry products retain a moist crumb and keep fresh for longer. Adjustable temperature curves and optional turbulence operation enable bakers to achieve perfect results. All these and many other advanced features demonstrate our unrivalled know-how and expertise in oven construction. HEUFT – THE THERMO-OEL PEOPLE.

THE THERMO-OEL BAKERS – A UNIQUE GROUP

At the start of the new millennium, a new community of Thermo-Oel Bakers was born. Initially, it consisted of Heuft specialists who promoted thermal oil technology all over the world and assisted bakers in commissioning their new ovens. As qualified bakers, they soon got involved in lively discussions with colleagues working in bakeries, exchanging views and experiences and passing on tips and tricks. Over time, bakers who were delighted with our thermal oil ovens started to call themselves Thermo-Oel Bakers. As they use the technology every day in their businesses, they are highly credible ambassadors for our systems and are as passionate about them as we are. To our delight, this unusual B2B fan club is still attracting new members. It is an informal community bound together by a shared passion for thermal oil baking and ovens that use this technology to the best advantage of bakers – ovens from Heuft.



#heuftthermoelbakers



THE THERMAL OIL

TROLLEY OVENS ROTATING RACK OVEN DECK OVENS LARGE OVENS
HEAT EXCHANGER HEAT INTEGRATION SYSTEMS



The VULKAN THERMO-ROLL is the result of 30 years of intensive research and development by Heuft. It sets new standards in the design of trolley-loaded ovens. Short warm-up times allow for baking batch after batch in quick succession, with trouble-free movement of the goods through the oven.



Thanks to the excellent heat retention capacity of the transfer medium, short interruptions do not result in instant cooling and do not affect the quality of the end product. It comes as no surprise that bakers in small and large bakeries are full of praise for the VULKAN THERMO-ROLL oven, which is available in various sizes and models.

TROLLEY OVENS



VULKAN THERMO-ROLL® THE AMAZING ALL-ROUNDER

One of the key features of our VULKAN THERMO-ROLL is its versatility. It combines the advantages of a rack oven trolley loading system with the baking capabilities of a deck oven. Where the VULKAN THERMO-ROLL is run with our patented stone plate system, traditional stone-baking quality and easy handling are added to the winning mix. Fast loading is another great advantage, as it takes less than 60 seconds to load a 10 m² oven, even if the THERMO-ROLL is operated as a manually loaded deck oven. The versatility of the THERMO-ROLL is reflected in its design. Available in various sizes and for a range of tray dimensions, the models of the THERMO-ROLL series can be adapted to suit virtually any bakery. The THERMO-ROLL is thus a true all-rounder.

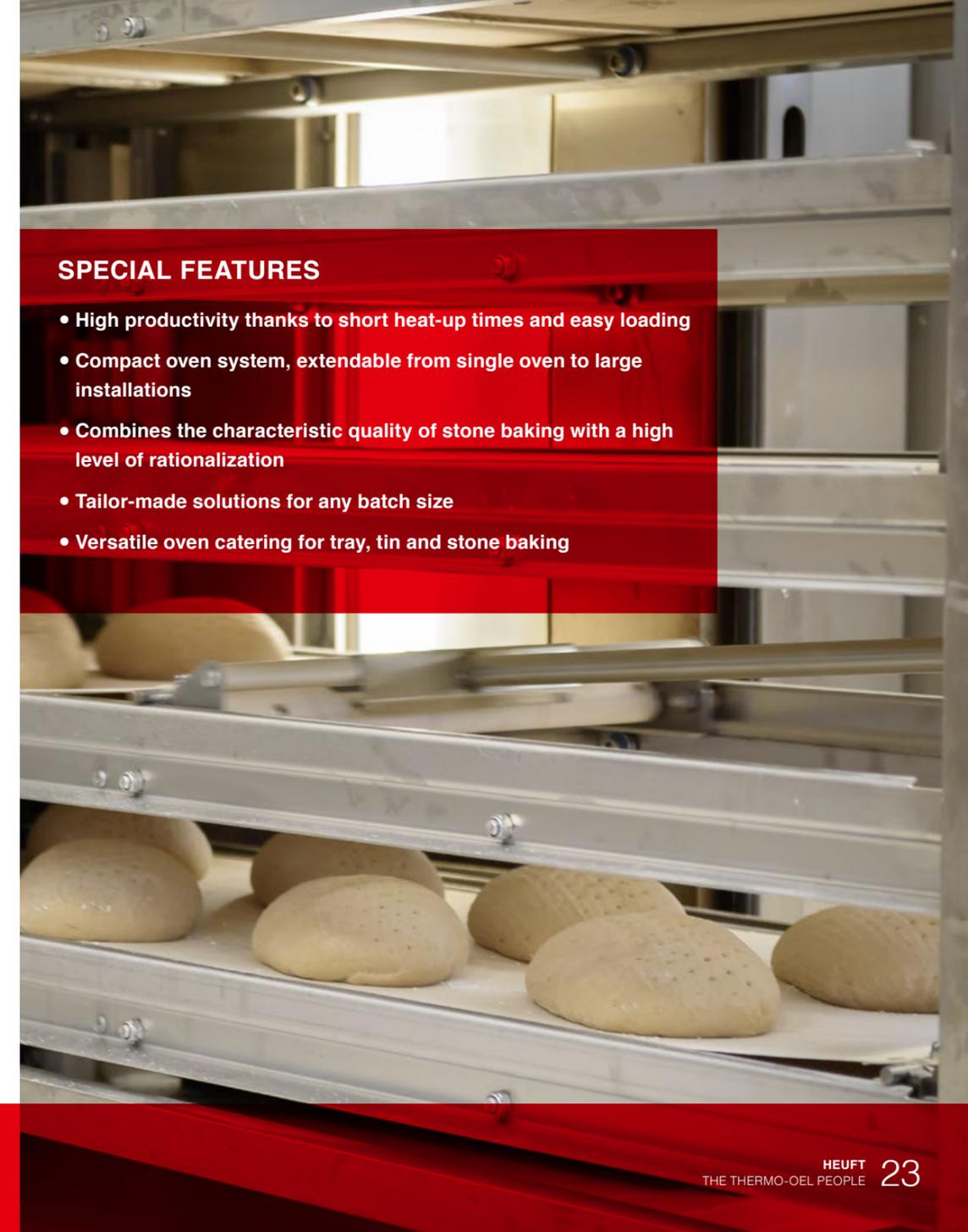


VULKAN THERMO-ROLL® BAKING ON STONE WITH MANUAL HANDLING

Baking on stone is a great traditional technique. Loading and unloading can however be difficult and time-consuming. Not so with our VULKAN THERMO-ROLL: thanks to our mechanical loading tools, the oven can be filled in less than 60 seconds – without any great physical effort or stress. Our patented stone plate trolley turns the THERMO-ROLL into a proper deck oven. In this case, baking takes place directly on the stone surface, and there is no difference in baking quality between the VULKAN THERMO-ROLL and a conventional deck oven! The unique combination of versatility and top baking results have made the THERMO-ROLL a popular model in bakeries of any size.

SPECIAL FEATURES

- High productivity thanks to short heat-up times and easy loading
- Compact oven system, extendable from single oven to large installations
- Combines the characteristic quality of stone baking with a high level of rationalization
- Tailor-made solutions for any batch size
- Versatile oven catering for tray, tin and stone baking





**VULKAN THERMO-ROLL®
BAKING ON STONE WITH CONCORD® LOADING
SYSTEM**

For large production runs, the THERMO-ROLL can be equipped with an automated loading system. The Heuft CONCORD VTR caters for up to 15 THERMO-ROLL trolley ovens with a combined baking area of over 200 m²! One of the key advantages of this system is the fact that the baking area can be extended – oven by oven, as the need arises.

The CONCORD VTR can be easily and precisely moved by hand from oven to oven. Once positioned in front of a trolley oven, it quickly loads and unloads the goods in a fully automated process.

An automated THERMO-ROLL oven system therefore provides a real alternative to a large-scale oven installation. Our planners and application technicians assist bakeries in finding the most suitable solution for their needs. Every aspect of the THERMO-ROLL, from loading to unloading, can be configured to customer requirements. The standard Heuft product range caters already for more than 2000 possible combinations – leaving nothing to chance!



SPECIAL FEATURES

- Custom-sized oven systems
- High capacities and hourly throughput rates
- Minimum manual handling thanks to automated loading and unloading
- Modular design for easy extension at any stage
- Optimized ratio between baking area and footprint
- Loading by means of loaders moving in front of the ovens

ROTATING RACK OVEN

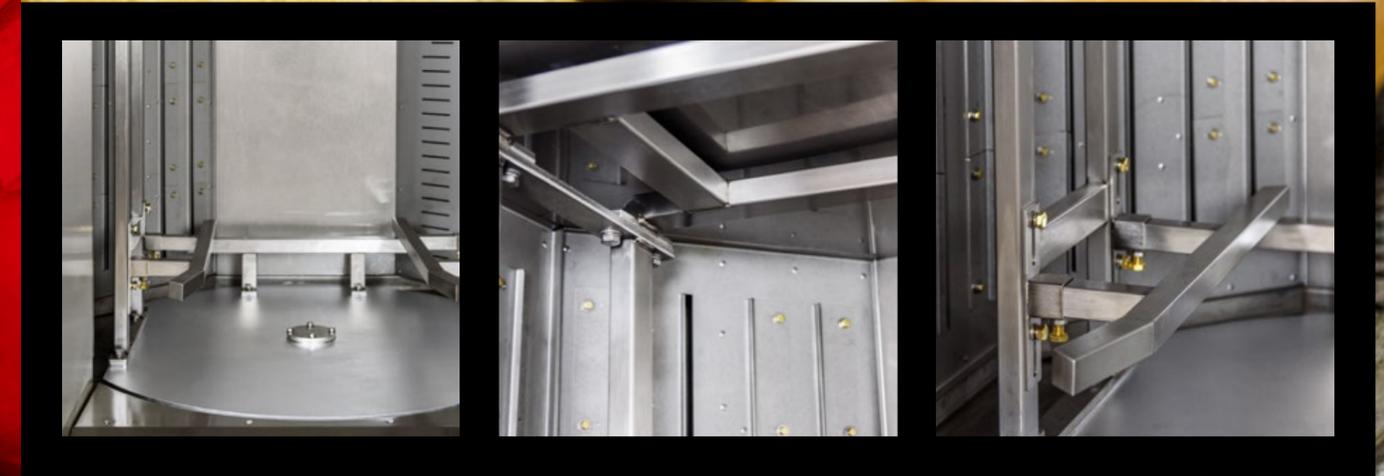


VULKAN TURBO-THERM® THERMAL OIL ROTATING RACK OVEN

The Heuft TURBO-THERM rack oven is the latest innovation by our Bell plant. A thermal-oil-air heat exchanger brings the baking air in the oven quickly to the required temperature. The TURBO-THERM makes full use of the advantages of thermal oil as a heat transfer medium, such as precise temperature control, protection against aggressive heat, energy-efficiency and low-noise operation. For large-quantity products such as croissants and bread rolls, we recommend using two trolleys for easy and fast loading/unloading. Thermo-Oel Bakers know that the TURBO-THERM produces the crunchy crust and appetizing gloss their customers are looking for. As the oven is connected to a centralized thermal oil heating system, there is no need for an additional burner or flue in the bakery. With the award-winning TURBO-THERM, Heuft offers Thermo-Oel Bakers tailor-made solutions for their specific needs.

SPECIAL FEATURES

- Reproducible thermal oil baking quality for large batches
- Outstanding efficiency thanks to connection to thermal oil heat exchanger
- Extremely short heat-up times
- Huge baking capacity thanks to the use of thermal oil as the heat transfer medium
- Powerful thermal oil steam units for saturated steam production
- Moist baking thanks to steadily available heat



DECK OVEN



VULKAN THERMAL OIL DECK OVEN THE OVEN AT THE HEART OF EVERY ARTISAN BAKERY

Deck ovens are still by far the most popular type of oven in bakeries. Bakers who have invested in a Heuft thermal oil deck oven quickly discover that they have acquired a piece of equipment that sets new standards when it comes to baking quality. Finished products – crispy rolls, firm loaves or soft biscuits – made in the Heuft thermal oil deck oven are as perfect as their recipes and the kneading, preparation and cool rising processes. As the baking atmosphere can be fine-tuned, every product is baked to perfection. Fast heating up and lowering of the baking temperature, as well as optional turbulence operation allows bakers to intervene quickly should production conditions change. The VULKAN thermal oil deck oven is not only highly efficient but also extremely versatile, catering for large batches as well as step-by-step loading of individual trays, tins and loose goods. That is why artisan bakers dedicated to quality opt for VULKAN thermal oil deck ovens.

SPECIAL FEATURES

- Universal oven for any product
- Customized oven design with 3 to 7 decks and baking areas between 3 and 30 m²
- Tailor-made models with up to 3 temperature levels
- Baking with or without air movement, thanks to Heuft turbulence technology



#heuftthermoelbakers

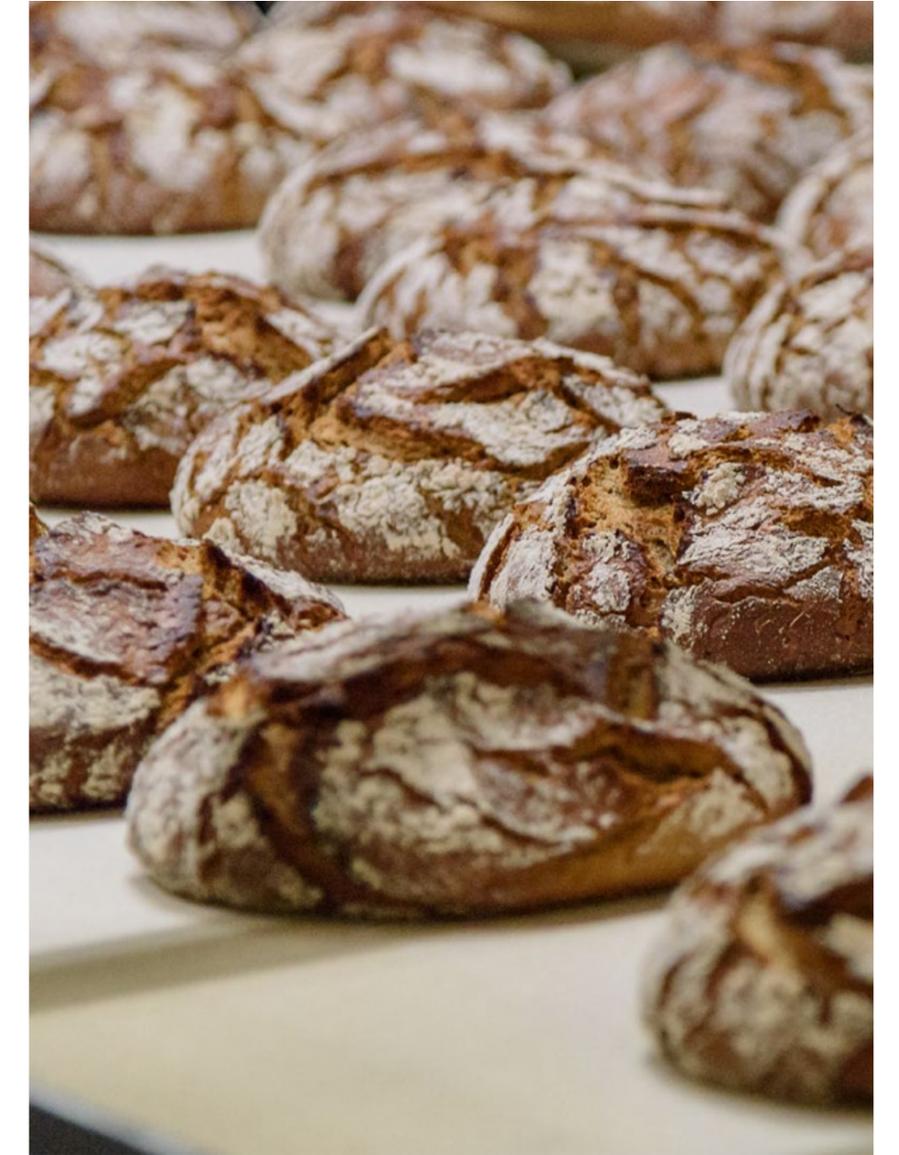
SPECIAL FEATURES

- Available with 6 to 12 decks of variable width and depth
- Caters for traditional baking techniques known from manually loaded deck ovens
- Speedy loading thanks to high level of automation
- Flexible system catering for various batch sizes, frequent product changes and fluctuating quantities
- Precision temperature control with 2 to 6 separate temperature circuits



VULKAN THERMAL OIL DECK OVEN WITH AUTOMATED LOADING

The Heuft VATO deck oven with automatic loading is the ideal solution for all bakeries that offer a broad range of products. Available with up to 12 decks and individual baking areas of up to 60 m², large batches of different products can be baked together. On request, the VATO is available with multiple temperature control zones. All baking processes are coordinated by modern control technology that ensures perfect timing. Thanks to the extra fast CONCORD loading system, the VATO does away with time-consuming manual loading typical for traditional deck ovens. The loading system moves horizontally and vertically in front of the ovens, making work much easier. Although the CONCORD works very fast, it handles all products with great care. Frequent product changes are not an issue for the permanently running CONCORD, and preparatory work such as placing, cutting, docking, moistening, etc. does not cause it to stop. VATO and CONCORD – a powerful team with amazing options.



VULKAN THERMAL OIL DECK OVEN WITH PULL-OUT DECKS AND AUTOMATED LOADING

Every bakery is different and therefore has very specific needs when it comes to ovens. Businesses that produce large quantities of pan bread, tray-baked goods or special breads are best served with a VULKAN thermal oil deck oven with pull-out decks. Trays and tins can be placed

directly on the baking plate. The pull-out deck plate is ideal for loose goods: after loading, the baker simply pushes a button and the whole deck is automatically retracted into the oven. This loading and baking method is made possible by thermal oil technology. Pull-out decks are of course also the ideal solution where manual intervention is required during the baking process, for instance to cut pound cakes or to dock tray bakes. They make such manual processes not only faster, but also safer and much easier.



SPECIAL FEATURES

- Available with 6 to 12 pull-out decks of various width and depth
- Extra-large baking area relative to oven footprint
- Fully automated and fast deck loading with CONCORD
- Ideal for loose products and a broad range of baked goods
- Easy to operate thanks to ergonomically optimized working height and touch screen PLC system

There is not an oven
type in the world that
Heuft has not manu-
factured at some
stage in its history.

WE SPECIALIZE IN THERMAL OIL TECHNOLOGY

AS IT OFFERS MORE ADVANTAGES

THAN ANY OTHER OVEN HEATING METHOD.



LARGE OVENS

SPECIAL FEATURES

- Huge capacities for a broad range of different baked products
- Available with 4 to 12 decks and baking areas of up to 300 m²
- Top and bottom heat can be individually controlled for each deck – no need for temperature control zones
- Oven conveyors with stone plates, hinged plates or mesh belts
- For artisan deck baking with multi-level conveyor system



VULKAN IMPACT® EXCELLENT PERFORMANCE WITH CONVEYOR SYSTEM

With the VULKAN IMPACT, Heuft has once more ventured into a world of new dimensions. This giant of an oven is designed for large batches and high quantities combined with frequent product changes. The VULKAN IMPACT's capabilities and versatility make it stand out from other large ovens in the market. In addition, the oven comes with all the recognized advantages of Heuft thermal oil technology. As bakeries need to become more efficient, the VULKAN IMPACT sets new standards when it comes to automation, as the oven and the CONCORD-RAPID loading system work hand in hand in perfect synchronization. The double loader loads and unloads the deck quickly in two separate steps. The conveyor belts are made in sturdy fabric or stainless steel. The VULKAN IMPACT is available as a conventional continuous oven or as a reversing oven. Another example of Heuft technology that exceeds expectations!



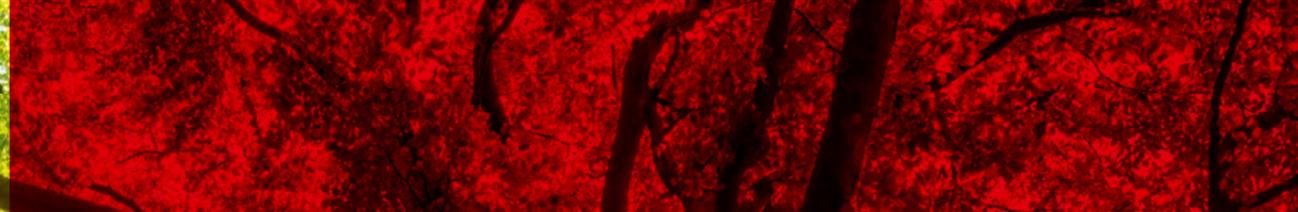
SPECIAL FEATURES

- Efficient baking of large quantities thanks to full automation
- Perfect for 24-hour operation
- Available in various special designs for integration into continuous production lines
- One oven with multiple temperature zones and separately controlled top and bottom heat

VULKAN EUROBACK® STEP-BY-STEP BAKING

The VULKAN EUROBACK guarantees efficient baking with fully automated processes. Despite its large dimensions, the oven is extremely versatile. Even in models with a baking area of more than 300 m², the heat is distributed evenly for perfect results, made possible by thermal oil technology. Thanks to the excellent heat retention capacity of the thermal oil, the heat is transferred continuously and uniformly to the products placed on a stone plate, hinged plate or mesh belt. The VULKAN EUROBACK caters for the simultaneous baking of different products, as each deck can be controlled individually, and bakers can separately adjust the top and bottom heat as well as individual temperature zones. The VULKAN EUROBACK can be operated in two ways, namely in continuous baking or step-by-step batch baking mode. Your challenge is ours! Thanks to our experience in large oven construction, we know how to fine-tune our giant ovens to meet your specific needs.





HEUFT HEAT INTEGRATION SYSTEM



MANAGING ENERGY FLOWS TO SAVE MONEY

By opting for a Heuft heat integration system, you make your business future-proof. First launched in 1997, our tried and tested solutions enable you to recover heat that would otherwise be wasted, reducing your energy consumption by up to 40 per cent! Three out of four Heuft customers who buy a thermal oil oven also invest in a Heuft heat integration system. At the core of our solutions are a central heat exchanger and a buffer tank through which a number of different energy sources can be integrated into the hot water and heating system. The capacity of the buffer tank is optimized for the actual heat requirements of the bakery, and a range of connection options cater for future expansions of the system, for instance with a steam condenser or a flue gas heat exchanger. We specialize in intelligent networking and monitoring solutions that make the generation of energy and its consumption ever more efficient. Investing in advanced technology from Heuft makes commercial as well as ecological sense.

365/24/7

HEUFT SERVICE – AN INTEGRAL PART OF OUR BUSINESS

Personal, competent and always there for you – that is what we aim for when it comes to customer service. We assist bakeries who wish to invest in a new oven with expert advice. After the oven concept has been drawn up, we make sure that the investment will serve the customer well into the future, offering competent after-sales support and a range of specialist services. Our experts can be reached around the clock through our dedicated support helpline. If your problem cannot be resolved through remote support, our service technicians will come to you – wherever you are in the world. Problems can however generally be prevented by having the oven commissioned by our specialist technicians who also train your staff, and by adhering to the recommended maintenance intervals. Heuft customer service gives you peace of mind.

IMPRINT

Published by:

Heuft Thermo-Oel GmbH & Co. KG

Nippesstraße 15

56745 Bell/Eifel

Germany

Phone +49 (0) 2652 9791 0

Fax +49 (0) 2652 9791 31

info@heuft-backofenbau.de

www.heuft-backofenbau.de

Concept and text:

Ruth Einig, Bernd Ludwig, Alexander Onasch,

Heuft Thermo-Oel GmbH & Co. KG

Layout and design: Schwarz Design Consulting, Aachen

Photos: Heuft Thermo-Oel GmbH & Co. KG,

Alexander Onasch, fotolia, shutterstock, pa·picture-alliance

Print: Wolf-Ingelheim

HEUFT THERMO-OEL GMBH & CO. KG

Nippesstraße 15
56745 Bell/Eifel
Germany

Phone +49 (0) 2652 9791 0
Fax +49 (0) 2652 9791 31

info@heuft-backofenbau.de
www.heuft-backofenbau.de