



**MIWE** thermo-  
rollomat

**A great performer – with modest demands**

A clever baker is not interested in a baking oven's particular features until one point is clear: Can it be used to obtain the quality of baked products he wants?

None of the oven's technical features will even begin to make an impression on him until this all important question has been answered to his complete satisfaction.

Where the MIWE thermo-rollomat is concerned, we can answer this question without hesitation in the form of reports – all issued by bakeries that have been using the MIWE thermo-rollomat for years, and all confirming the excellent quality of products baked with these ovens. In fact, some users were so pleased with the baking results that they have since ordered the second, third or even fourth baking oven of the same type. What better proof of the oven's class.

If we were asked to sum up the MIWE thermo-rollomat in as few words as possible we would call it a "multiple-deck, fully automatic, tunnel-type baking oven with thermal oil heating system for baking in batch or continuous step production". Everything that a baker needs can be found in this recipe: A large baking area on a small footprint. Powerful yet absolutely gentle and uniform baking. Unlimited temperature control of the highest precision. Saturated steam of constant humidity and temperature supplied by an external low-pressure steam boiler. And simple selection of batch mode or continuous step production.

This feature in particular makes the MIWE thermo-rollomat suitable for all products in the conventional temperature range – from deck-set and peel-loaded products to tray and tin goods.

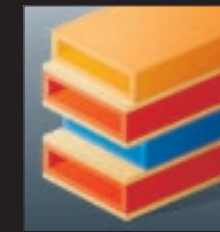
It guarantees the powerful rising of soft, fully fermented dough, supplies exactly reproducible products, and meets a standard of quality better than you could hardly wish to achieve.



Optional loading from the side for pretzels

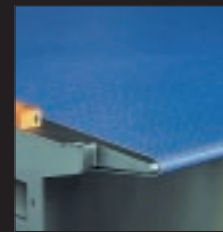


Gentle heat for lasting freshness



Self-contained baking chambers for lower energy consumption and a longer useful life

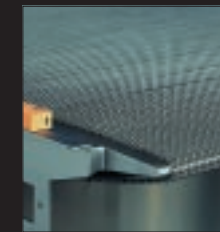
The user-friendly control system guarantees optimum baking processes that can be reproduced whenever required



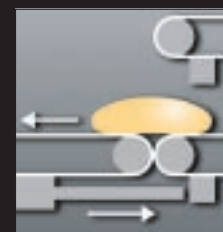
Three types of loading conveyor – the choice is yours



Loading and unloading according to requirements (e.g. with a spraying device)

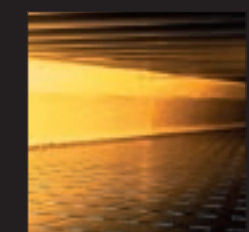
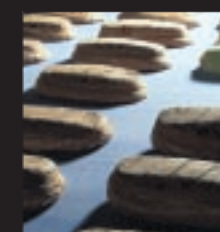


A baking area of up to 294 m<sup>2</sup> for maximum output of top-quality baked products



Synchronous transfer – ideal for soft dough, trays, tins and dough pieces on foil

Better conveyance and longer life thanks to silicon-coated textile belts



The MIWE hinged-plate conveyor brings many benefits



**Design**

The outstanding reputation enjoyed by the MIWE thermo-rollomat is owed to its unique design. To be exact, there are three technical developments which set it apart from all its competitors and have a positive impact on baking results.

The most striking characteristic of the MIWE thermo-rollomat is the arrangement of its baking chambers. It is available with a total baking area of up to 294 m<sup>2</sup>, which is broken down into a maximum of seven separate oven decks with a standard deck width of 2.0 or 2.5 m. Each baking chamber is installed in the housing as a separate, self-contained oven unit, and it is precisely this arrangement which makes the MIWE thermo-rollomat so efficient.

The benefits are felt in two ways: First, a 70 mm intermediate insulating layer between the various decks enables each deck to be operated at a different temperature – using its own top and bottom heating functions – without the heat getting through to the adjacent deck. And second, it is possible to use just one baking deck without fear of thermal stresses due to heat-induced expansion.

For modular design reasons, each deck of a MIWE thermo-rollomat is made of exactly the same components, e.g. pipes, pumps and valves.

Similarly, each deck is supplied with the same amount of thermal oil at the same flow rate. This guarantees harmonious conditions of heating and hence the absolutely uniform baking characteristics associated with the MIWE thermo-rollomat.

The special hinged-plate conveyor (a MIWE patent), which is designed to run full-face over the slideway, transports the products in the decks and ensures their careful handling. It provides products with optimum full-face support when they are transferred to the loading and unloading conveyors, and unlike a wire belt it leaves no impressions on the products.



The MIWE hinged-plate conveyor leaves none of the marks associated with a wire belt conveyor

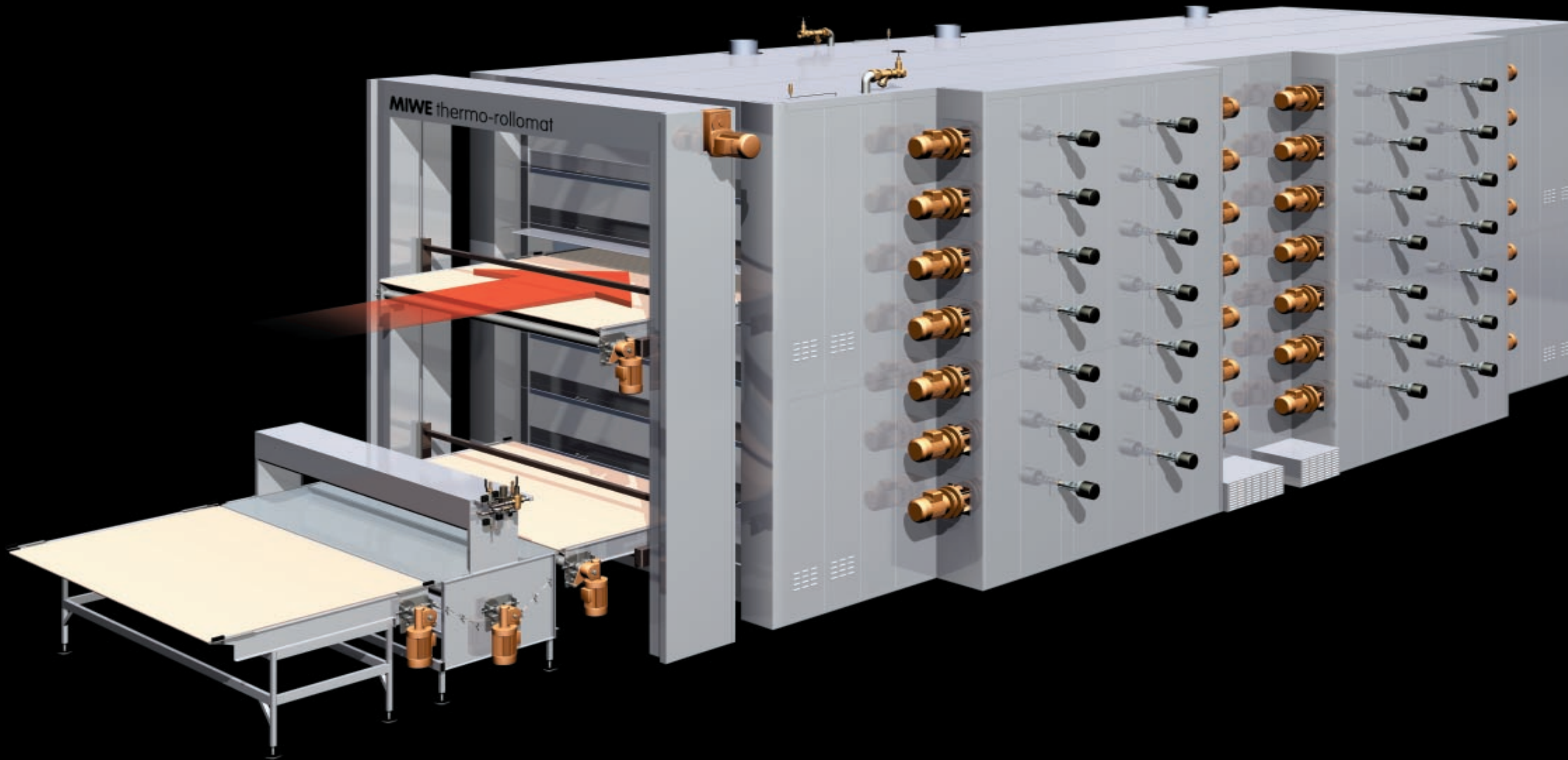


Baking residues are collected in drawers



For each deck there are steam slide valves made of cast iron





**The advantages at a glance:**

- ▶ Large baking area on a small footprint
- ▶ Powerful yet gentle and uniform heat transfer
- ▶ Unlimited temperature control of the highest precision
- ▶ Better guidance
- ▶ Saturated steam of constant humidity and temperature

- ▶ Batch mode and/or continuous step production
- ▶ Each baking chamber is arranged in the housing as a self-contained, separate baking unit
- ▶ Each deck can be operated at different temperatures with its own top and bottom heating functions
- ▶ Identical arrangement of all components in each deck

- ▶ MIWE-patented special hinged-plate conveyor for transporting the products in the decks
- ▶ Easy lubrication with the MIWE SPB
- ▶ Floating heating plates and pipelines
- ▶ Prolonged life



Baking unit with unloading belts



Baking oven without paneling



Base frame with single deck / baking chamber

## The heating medium

The use of thermal oil in today's baking ovens requires no further explanation.

On the contrary, it is now firmly established as a standard option. This is owed, among other things, to the positive impact made by thermal oil in other high-tech branches of industry, where it has been used as a heating medium for several decades already.

MIWE examined how the merits of thermal oil can benefit the baking process and channeled the findings into the building of baking ovens. What advantages are in it for you becomes particularly apparent with the MIWE thermo-rollomat.

First, heating with thermal oil enables gentle yet powerful baking without scorching.

Overheating between baking runs is thus ruled out. Second, thermal oil has very good temperature regulating characteristics.

Fluctuations in flue draught or central boiler burner performance thus have no influence on the deck temperature. Not only is this essential for constant baking, it also keeps energy costs to a minimum.

Our baking ovens are operated with high-grade, fully synthetic thermal oil that permits inlet temperatures of 350 °C.

The MIWE thermo-rollomat does not require such high temperatures, but is content with a maximum inlet temperature of 320 °C. However, this temperature reserve proves useful when baking special kinds of bread that call for such a high initial temperature.

Our fully synthetic thermal oil is also notable for its long life and MIWE's replace-and-dispose guarantee.



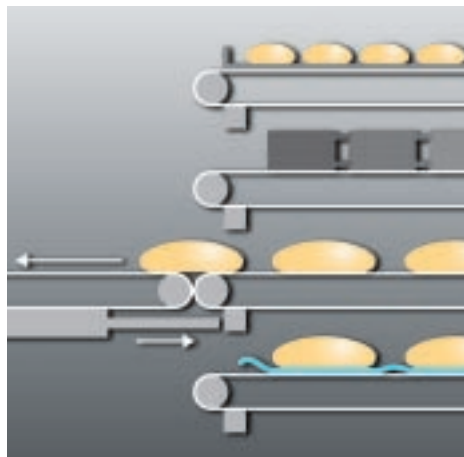


Spraying the baked products with a standard spraying device or pneumatic water atomizer

### Loading and unloading

In a sense, the MIWE loading and unloading systems are the interfaces of the MIWE thermo-rollomat. And like our industrial baking ovens, they meet the highest quality requirements.

Regardless of whether you want to bake, spray or automatically unload the oven of tin or peel-loaded products, the necessary loading, unloading and delivery conveyors can be supplied to meet your specific requirements.

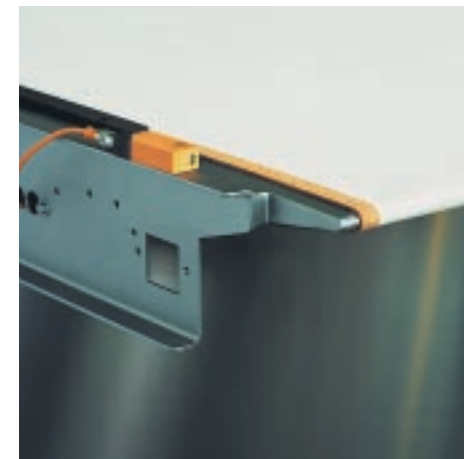


Synchronized transfer ensures troublefree transportation of soft dough, trays, tins and dough pieces on foil

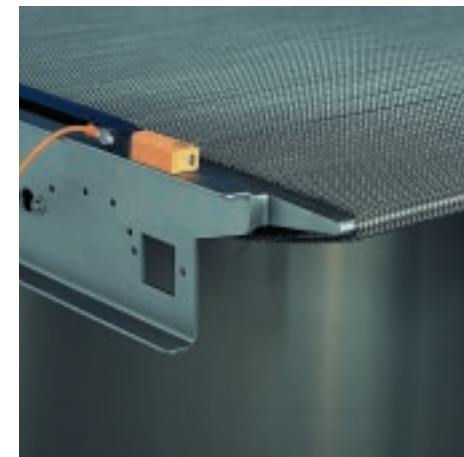


Loading belts are available in three different versions:

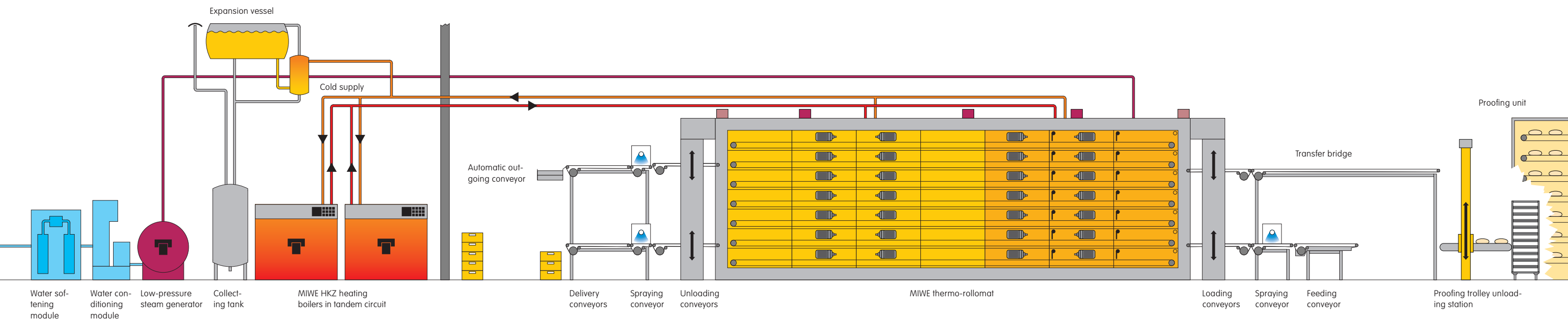
▷ as a silicon-coated belt – dirt-repellent and washable, with anti-stick properties.



▷ as a fabric belt – a popular choice for many years because of its extremely gentle handling of dough pieces.



▷ as a robust, high-grade steel wire belt – notable for its heat resistance and suitable not only for tin products.





Baking oven outlet with chute and cross conveyor belt

The MIWE butler is an automatic proofing trolley unloading station designed specially for the convenient, labor-saving loading of the MIWE thermo-rollomat. It offers clear-cut advantages: Products are transferred synchronously and not just "grabbed". The careful handling of soft and peel-loaded dough is also possible, therefore, in addition to trays, tins and foils. An entire deck can thus be filled from two proofing trolleys, for example. The wide setter can be turned and used for pulling out by hand.



MIWE butler with docking station (can also be loaded by hand)

Products can be transferred to the MIWE thermo-rollomat from a conveyor-type proofing unit, a trough-type proofing unit, or directly from a MIWE VB prebaking oven. The MIWE VB features two burners with top and bottom heating functions that can be controlled fully independently of each other in energy-saving mode.

Products can be fed from all these units to the MIWE thermo-rollomat by means of a transfer bridge and a second loading belt. At the same time other products can be transferred from baskets to a second feeding belt for finishing. These products are then fed into the oven independently of the first loading belt.



Manual cutting and peel-loading of pretzels from the side

Standard features of the MIWE thermo-rollomat include automatic stamping and spraying devices as well as matching proofing cabinets. For pretzels and similar items the oven can be equipped with a drawer on the side and a separate outgoing conveyor at the oven outlet. You are thus able to place products directly on the hinged-plate conveyor in an optimum arrangement and bake them independently of the loading and unloading equipment.

MIWE butler with docking station and proofing trolley



Illustrations on the right:  
Two central heating boilers in a tandem circuit (above) provide the highest possible operating reliability (top)  
Steam generator with water service module and water softener (bottom)

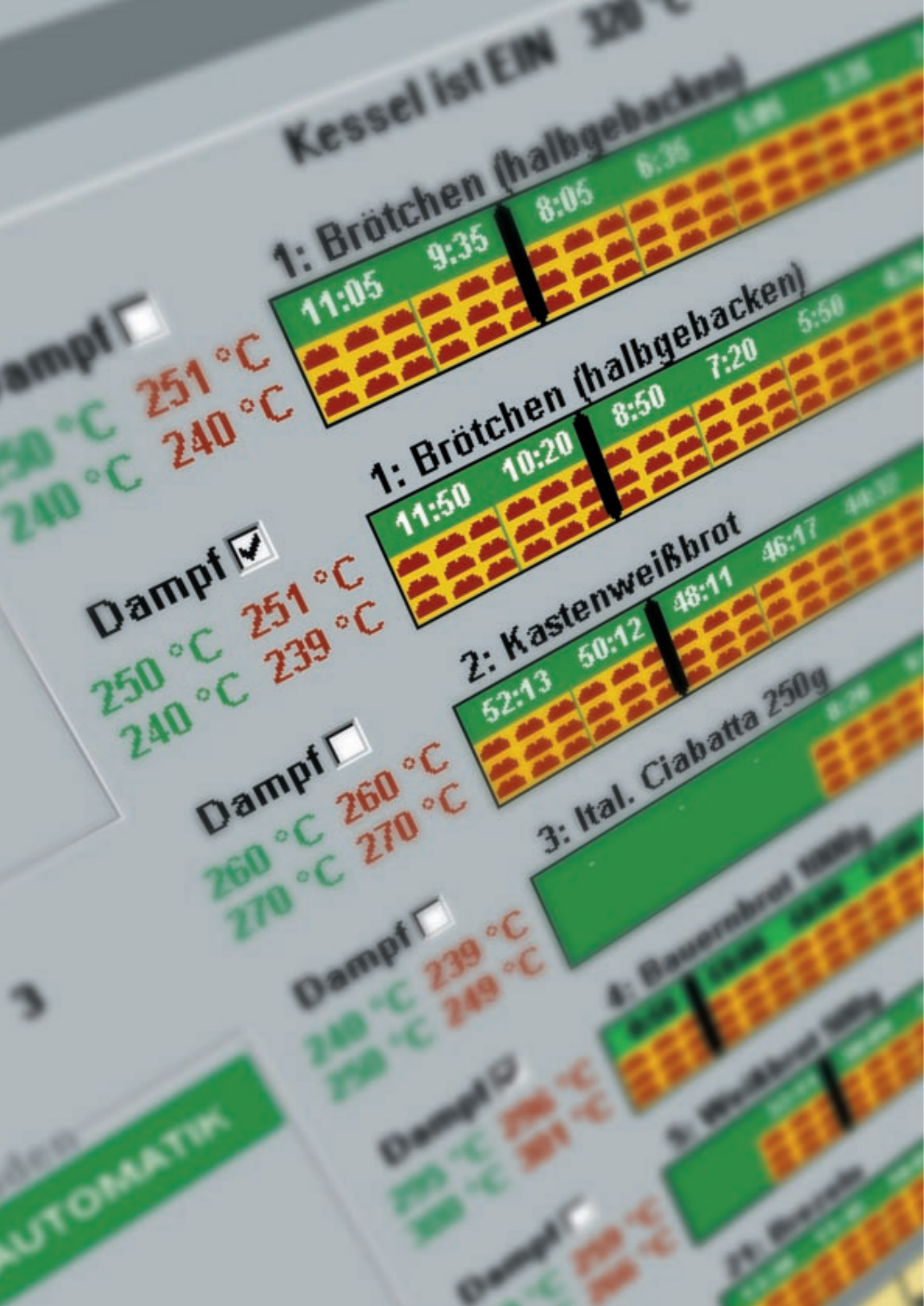
### The MIWE central boiler

The MIWE central boiler heats the entire baking unit to optimum effect. A tandem system with two parallel boilers is preferred for the MIWE thermo-rollomat.

This guarantees not only the highest possible operational reliability but also a low level of energy input. And everything is already prepared to allow additional ovens and other heat consumers to be connected if required.

Ideally the central boiler is installed in a separate heating room away from the MIWE thermo-rollomat. Such an arrangement provides optimum conditions for the unit as a whole: Flour dust from the baking room thus stays on one side of the door (flour dust could damage the boiler!), while noise from the burner is contained on the other side.





### The control system

The MIWE thermo-rollomat meets the demand for optimal, reproducible baking operations by providing a control system that is both flexible and easy to use.

A touchscreen monitor that visualizes working sequences and prompts you to enter program parameters through a Windows® desktop enables the fully automatic operation of all the unit's components: loading and unloading functions, deck doors and steaming curtains, steam input, steam extraction, baking time and baking chamber temperature. The control system also monitors the central boiler. Additional monitors can be installed on the delivery side of the baking oven or in the dispatch department.

Up to 1,000 baking programs can be called up through the control system. The system creates production logs and records all messages and irregularities. It provides detailed information – with graphic support – to locate the source of any faults and facilitate their elimination.

Remote servicing via modem enables the quickest possible help and support to be provided by our specialists, without them leaving their office.

The control system can also be incorporated in an existing production line network.

- ▶ Touchscreen monitor for work sequence visualization
- ▶ Windows® desktop programming
- ▶ Fully automatic unit components
- ▶ Additional monitors, e.g. at the oven outlet, in the dispatch department or in the bakery manager's office
- ▶ Up to 300 baking programs
- ▶ Production process logs
- ▶ Records of any irregularities
- ▶ Graphic support for the location and elimination of faults
- ▶ Remote servicing by modem
- ▶ Control system integration in an existing production line network

### 24-hour service

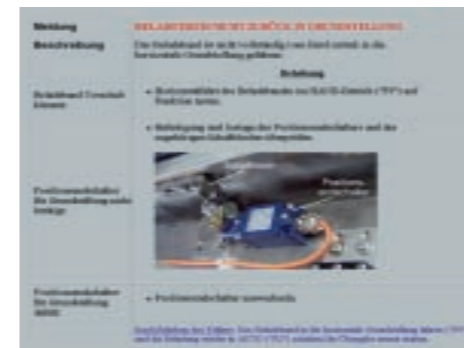
The technical safety features of a baking oven are one thing. The reassurance of being able to reach one of our specialists in an emergency is another. This is what our 24-hour service stands for: Help from one of our equipment specialists whenever you need it. And by the way: The telephone numbers applicable for your region can be found on stickers fastened to the oven where they are easy to see.

Generally, our service fitters can make repairs immediately because they have a large assortment of all the usual wear parts with them.

And in those cases requiring special spare parts, fast availability is assured by our regional spare parts depot.

We recommend bakers to sign a service contract to cover this service. The contract, which covers the regular maintenance and servicing of your baking oven as well as any visits made by our service fitters, has a positive impact on your costs by turning the incalculable expenses of maintenance and servicing jobs into a fixed-cost item.

### Monitor-supported troubleshooting



### User-friendly generation and management of baking programs



**MIWE makes baking simple:**

With a range of classical baking ovens that includes not only efficient in-store ovens and reliable oven solutions for smaller bakers, but also fully automatic large-scale baking units.

With a complete range of bakery refrigeration equipment that simplifies and ensures the quality of your baking preparations.

With loading systems that make hard physical work a thing of the past.

With a wide selection of control options – from “single-button operation” for unskilled workers to sophisticated monitoring and documentation systems.

And ... with customer support that you can always rely on.

**MIWE** Michael Wenz GmbH D-97448 Arnstein

Phone +49 (93 63) 68-0 · Fax +49 (93 63) 68-400

[www.miwe.com](http://www.miwe.com)