

WP BAKERYGROUP

# MEGADOR MULTI LAYER OVEN

FLEXIBEL AND  
SPACE SAVING



Werner & Pfleiderer  
Industrial Bakery Technologies



*Step by step output of fresh pretzeln from the MEGADOR oven*



*Excellent quality, even by complicated baking products*

# SIMPLE AND VARIABLE

## **When highest flexibility needs minimum space**

The MEGADOR Multi Layer Oven opens new dimensions for economic production of a wide range of bakery products. Additionally providing high baking quality and optimal usage of space. You can be sure that your requirements for top quality products, rapid amortisation, increasing competence in competitiveness and customer satisfaction will not only be achieved, but will surpass your expectations.

## **MEGADOR Multi Layer Oven – advantages and features in brief:**

- Choice of Zyklotherm- or Thermal-oil-Heating Systems possible
- Ideal for wide range production with frequent batch changing
- For continual or batch production
- Complete modular construction
- Separate controls of top heat and bottom heat radiators for all individual layers
- In time production due to individual baking times for each layer
- Unique steam spray and fresh air systems
- Hinged plate belts, grid belts or a combination of both
- Automatic loading and unloading
- Double safety with dual drive elements (left and right), belt tensioning on both sides

## **Product variation and economy**

Flexible, space saving solutions are pre-requisites for producing a large variety of products under economical circumstances. This is where the MEGADOR Multi Layer Oven presents itself as the ideal solution. The modular construction system offers flexibility, efficiency and tailor-made production for continuous or batch products. Even by frequent product changes and smaller batches, the automatic loading system ensures economic production processing.

## **Layer for layer – high quality products**

Quality is can be measured even in continual processes, this is why care in the choice of raw materials, recipes and dough preparation methods are so important. Therefore the decision that must be made is for a perfect and reliable baking process, which guarantees unmistakable, continuous high quality reproduction of the goods. The MEGADOR Multi Layer Oven combines highest quality production and continual precision, creating a new milestone in baking technologies.

## **Investments for the future**

With the MEGADOR Multi Layer Oven you invest in a baking system which is designed for the future. Whether you want to increase your range, or your baking capacities, the MEGADOR Multi Layer Oven is capable of meeting any challenge. The modular construction system enables the MEGADOR Multi Layer Oven to adapt or be extended to your new requirements. Standardised interfaces and cable connections guarantee a fast, unproblematic extension – so that you can practically build up your lead against competitors without any loss of time or costly delays in production.



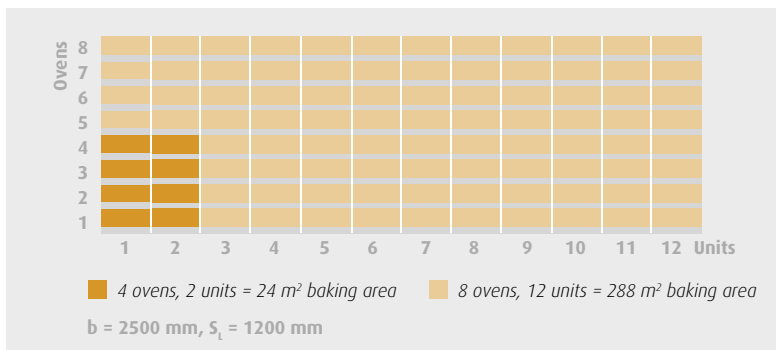
# PERFECT TECHNOLOGY FOR PERFECT PRODUCTS

## The Modules

The MEGADOR Multi Layer Oven consists of a range of modules, which in can be connected and assembled in steps ranging from 2 to 3 metres in width and 900 to 2400 mm in length.

### Possible unit sizes:

- Width  $w$  [mm]: 2000 / 2500 / 3000
- Length  $S_l$  [mm]: 900 / 1000 / 1200 / 1400 / 2000 / 2400



With MEGADOR, baking areas from 24 m<sup>2</sup> to 288 m<sup>2</sup> are possible (b = 2500 mm,  $S_l$  = 1200 mm)

### Individual Zone Assembly

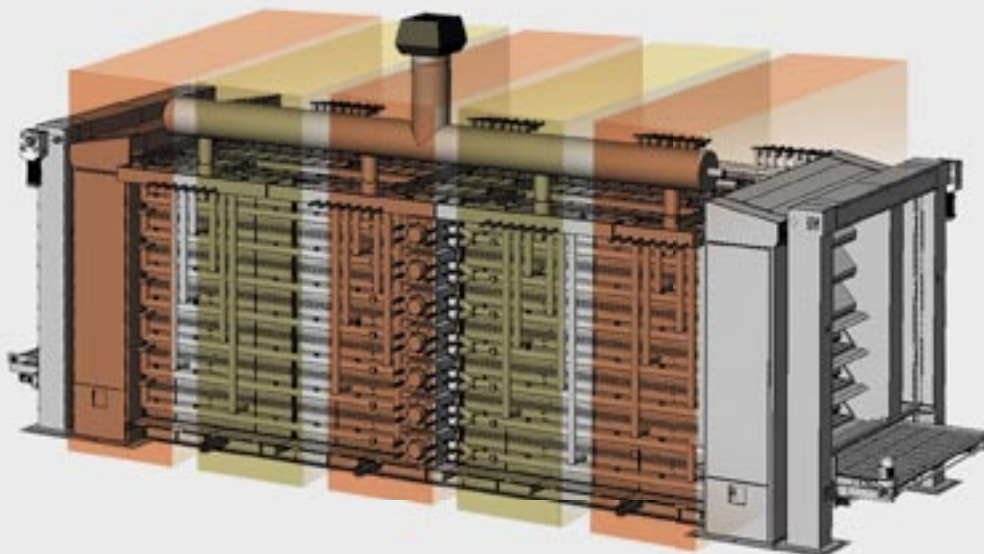
A row of steps can be joined to create baking zones, in which heating, convection, steam input and steam removal can be regulated as you require.

### Loaves and rolls simultaneously

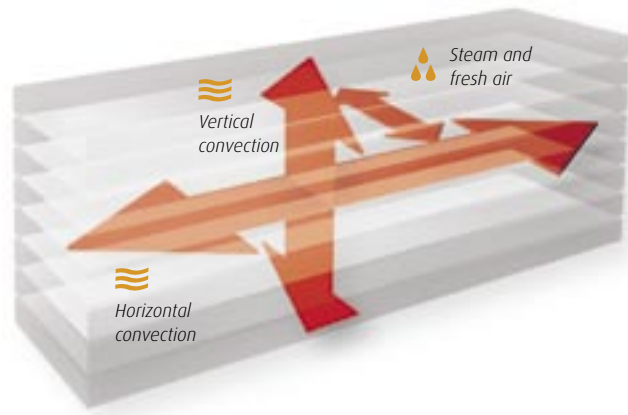
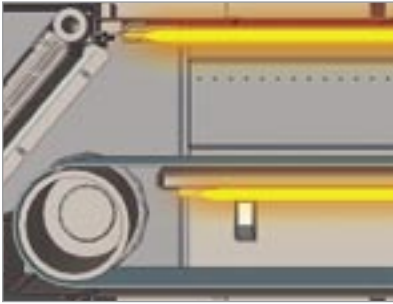
In case of deckwise production the oven compartments in each oven can be used to bake different products. Temperatures and baking times can be programmed accordingly. In continuous processing, the oven can be divided into zones, so as to guarantee a perfectly optimised baking cycle for the required product. Different combinations are also possible (see. p 6\_7).

### Perfect insulation

The separate baking chambers are insulated so as not to influence each other.



**MEGADOR**  
With different climate zones  
and horizontal convection



#### Upper and lower heating elements

Each zone has its own upper and lower heating circuit. In this way the upper and lower heating can be controlled separately. Different baking temperatures per zone can also be defined. By each oven it is possible to vary the upper and lower heating temperatures, which can differ from the other tiers.

#### Horizontal convection ≡

More crispness by the use of overlapped convection in the oven. The horizontal turbo improves baking results on the sides of the ovens. Turbo convection is possible in both directions and can be controlled individually for each oven.

#### Vertical convection ≡

The vertical turbo is especially recommended for tin baked loaves with short baking times. The forms fill correctly and the sides stay firm.

#### Steam and fresh air ♾

The MEGADOR Multi Layer Oven has a unique system for steam and fresh air intake. Steam can be injected or removed separately from each oven zone. The steam extraction unit is controlled and pressurised centrally. Direction of convection or extraction are at right angles to the running direction of the oven



*Natural formed or tin-baked loaves, small wheat pastries, fine, tray pastries or egg-yolk sprayed specialities - with MEGADOR you always achieve first class results*





Wire belt



Hinged steel plate belt

# MODULAR CONSTRUCTION

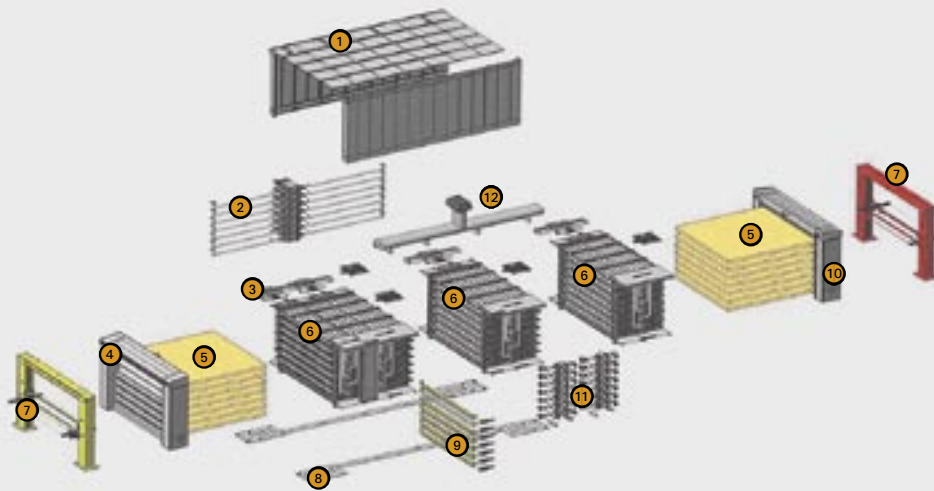
## Innovative Modular Designed Systems

The secret of the MEGADOR Multi Layer Oven lies in its modular design. This enables the installation of a tailor-made oven solution without costly planning. The module system does not restrict your requirements, but is able to adapt to your needs due to the manifold possibilities and variations considered in its planning and design.

The MEGADOR Multi Layer Oven is a system which is adaptable to any future requirements you may have, be it expansion in your range of products, or an increase in capacity. The MEGADOR Multi Layer Oven can take on any challenge, and can be extended or adapted to your every wish.

A good example is an improved automation of the loading system, or with the Zyklotherm version it is no problem to increase the oven's baking area. A combination of pre-baking with Zyklotherm heating and final baking with Thermal-oil is possible.

### MEGADOR TH

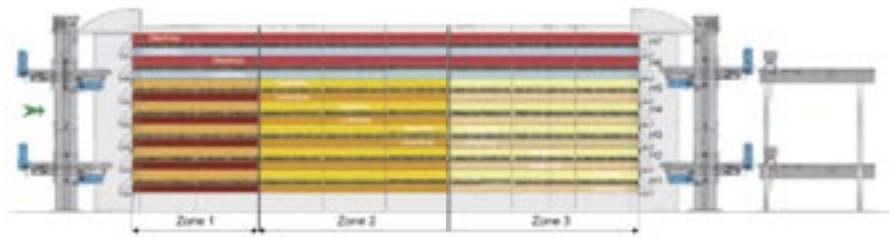


- ① **Oven housings**  
Stainless steel housings with multiple insulation.
- ② **Turbo ventilators with piping**  
Bidirectional turbo ventilators with pipes fitted at the side of the oven (Optional).
- ③ **Steam damper**  
Steam injection and removal controlled for each oven and zone separately.
- ④ **Oven entrance**  
Entrance fitted with insulated doors and integrated belt tension control on both sides.
- ⑤ **Heating radiators**  
Radiators for upper and lower heating elements.

- ⑥ **Oven modules**  
For 1 - 3 baking steps (according to S<sub>1</sub>).
- ⑦ **Loading and emptying**  
Loading and emptying units for free form loaves, baking tins and trays. Stable construction for belt loads of up to 50 kg per m<sup>2</sup>. Can be combined with additional pre or post conveyor equipment.
- ⑧ **Floor fittings**  
Anchored to the ground, so as to allow thermal contraction and expansion of the oven and housing in relation to the baking layers to take place without influencing the system. (The fixed point is at the oven entrance).

- ⑨ **Zone Dividers**  
Motorised raising and lowering of the curtains separating the different climatic and temperature zones.
- ⑩ **Oven outlet**  
The oven outlet has an insulated, hinged door and an integrated conveyor belt drives.
- ⑪ **Thermal-oil secondary heating cycles**  
Different temperatures for upper and lower heating radiators can be regulated in different zones.
- ⑫ **Steam extraction unit**  
Automatic compensation by under-pressure creates a constant oven climate in all units.

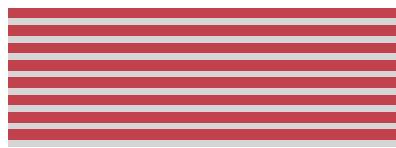
# FLEXIBLE FUNCTIONALITY



## Variation pays off

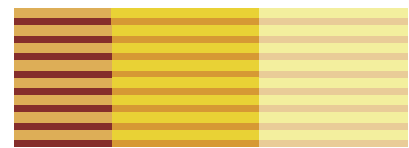
The MEGADOR Multi Layer Oven rationalises the usage of different baking and transporting processes, giving the possibility for varying the fresh products baked. This is possible when baking in tiers, or moving belt baking methods, but also when using a combination of both methods.

Production time and baking area are used rationally and economically.



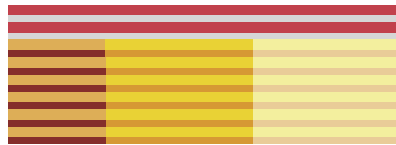
### Baking in tiers

Baking a variety of products at the same time in one single oven. When producing small charges, an ideal solution for a small sized bakery. Each complete deck heats to one temperature value. Baking takes place stationary belt. Available for Zyklotherm and Thermal-oil.



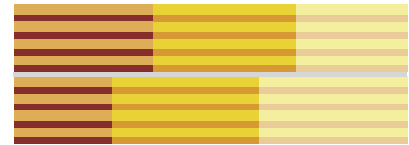
### Continual, moving belt baking

Baking larger batches and using temperature profiles divided into zones. Loading is continuous step by step (vertical loading). This is ideal for higher production amounts and industrial production. Available for Zyklotherm and Thermal-oil.



### Combination

A combination of deckwise baking with small batches and baking of "best sellers" which are baked repeatedly in the continuous mode. Available for Zyklotherm und Thermal-oil.



### Continual baking with a series of deck groups

Varying products are baked continuously, step by step and simultaneously in two groups of decks, even with different zone temperature profiles and step sizes. Industrial baking, automatic flow of a wide variety of baked products. Only available for Thermal-oil.





*Zone secondary cycle fittings*



*Boiler with extracted hot air exchange system*

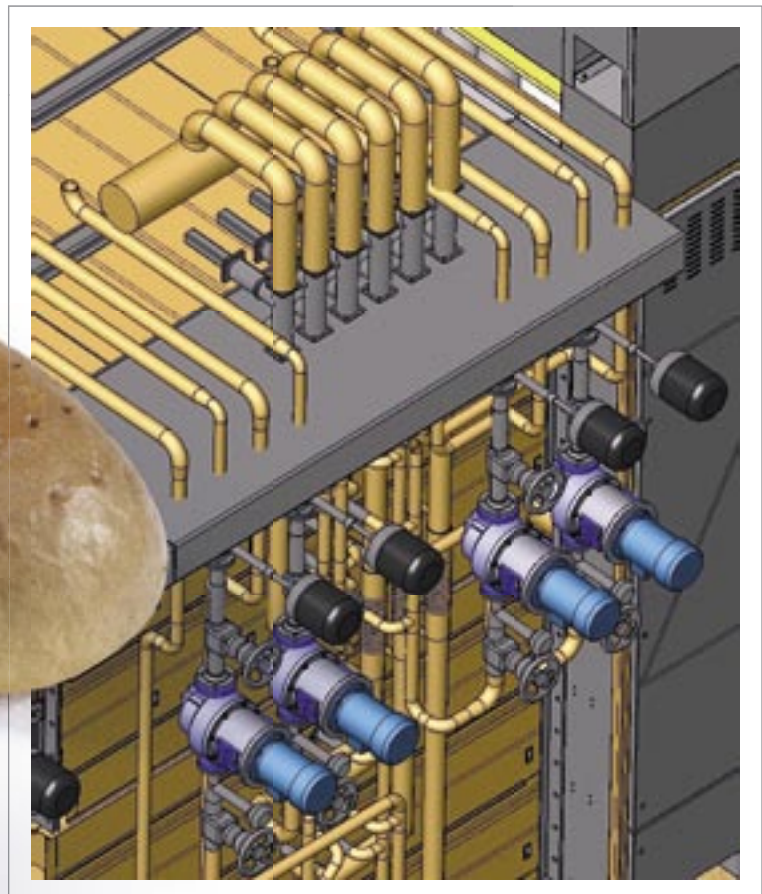
# MEGADOR TH THERMAL-OIL HEATING SYSTEM

## **The MEGADOR Multi Layer Oven with the Thermal-oil heating system**

The MEGADOR TH convinces with its constant uniformity and precise regulating, plus the use of single regulated decks or a connected series of oven zones, but even more convincing is a combination of both of these processes. In this way the MEGADOR TH can be adapted to meet your exact production requirements. And to complete the system we offer reliable loading and unloading modules and an intelligent oven climatic control system.

## **Thermal-oil**

- Excellent constancy by means of large volume heating radiators
- Strong crusts, baking without loss of temperature when loading
- Longer lasting freshness, less loss of humidity through stronger crusts
- Especially recommended for wheat or wheat mixture products and fine baking products needing short baking cycles, i.e. tin baked loaves





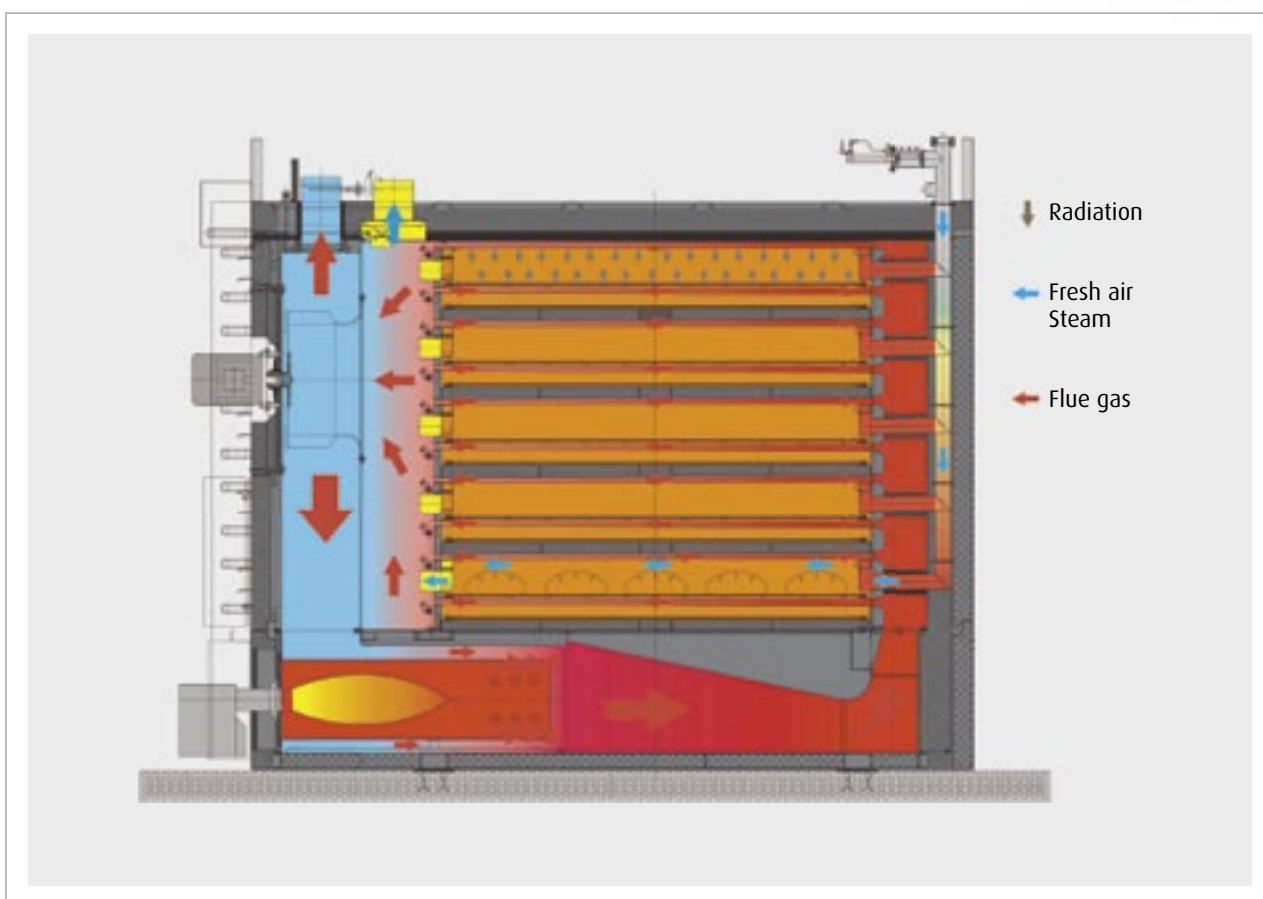
# MEGADOR CYCLO ZYKLOTHERM HEATING SYSTEM

## The MEGADOR Multi Layer Oven with the Zyklotherm heating system

The already proven Zyklotherm heating system of the famous MATADOR deck oven is now available for multi layer ovens connected in series. The oven's advantages are its high starting temperatures and the thereby produced high oven spring. The advantage over the Thermal-oil ovens is the versatility when temperature changes are required, which guarantees a crisp, but soft splitting crust. Loading and unloading technic and steam input or extraction are the same as in the MEGADOR TH.

### Zyklotherm

- Larger baking volume by optimal steam condensation
- Soft splitting but crisper crusts through temperature flexibility
- Proofing time tolerance through excellent oven spring
- Especially recommended for dark bread mixtures with high baking temperatures





*Multi layer belt fermentation channels*



*Cutting and slicing*



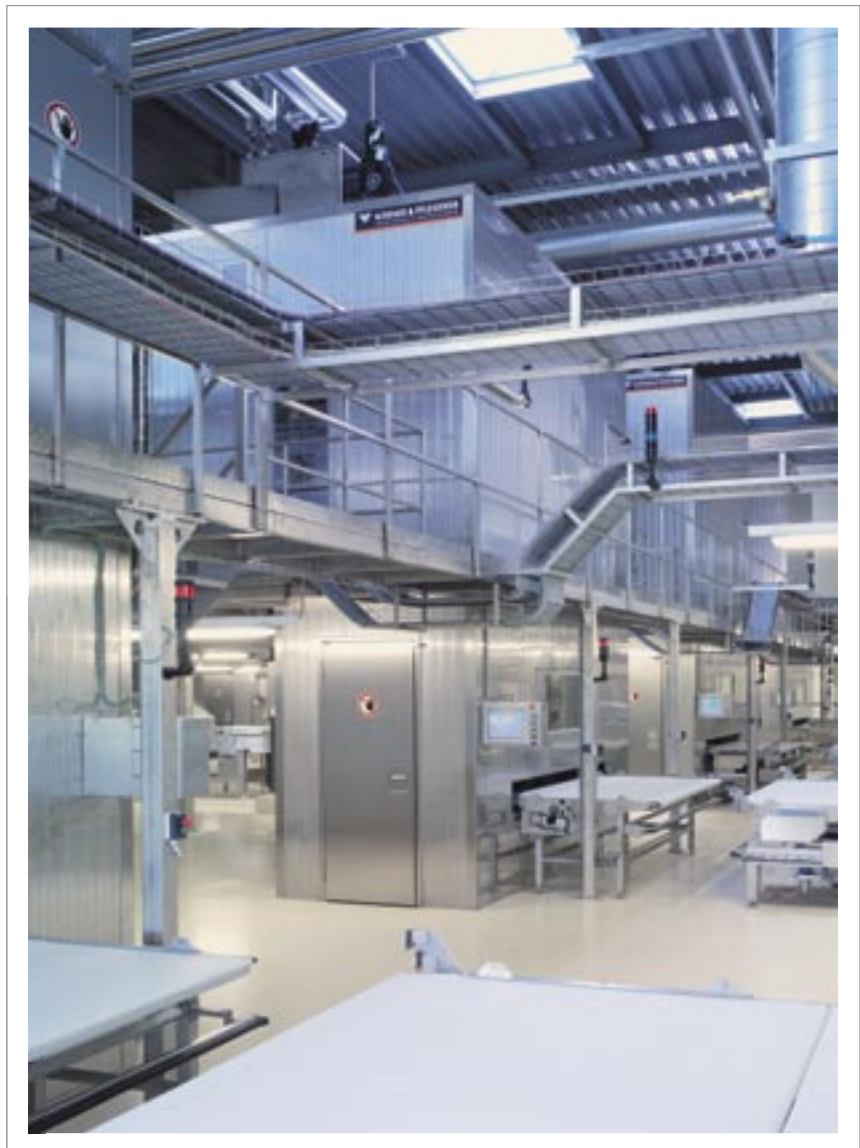
*Cloth transportation*

# LOADING AND UNLOADING

Loading and unloading the MEGADOR Multi Layer Oven is fully automatic, and carried out by robots. To meet your requirements, single or double loaders can be fitted, which in turn can be connected to different conveyor belts. The choice stretches from reinforced cloth band to plastic grids or even weaved cloth belts. Enabling you to adapt the equipment to your individual requirements.

MEGADOR can be combined with fermentation layer channel systems, so that the same loading and transportation tables can be used to safely transport the products to the oven. The transport module system is rounded off with an automatic cloth removal station, trolley-unloader, oven-wide spraying stations as well as cutting and slicing stations (length, breadth or diagonal cutting).

*Extremely short timing cycles with the triple loader.*

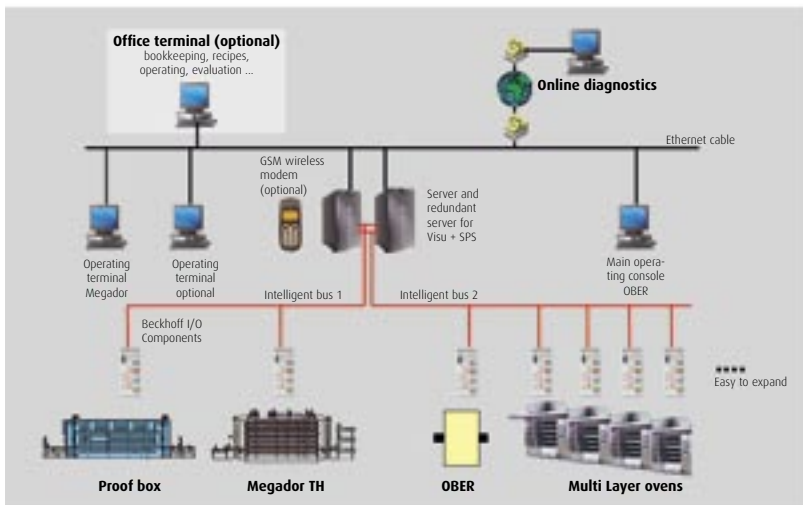




Easy to read touch screen console

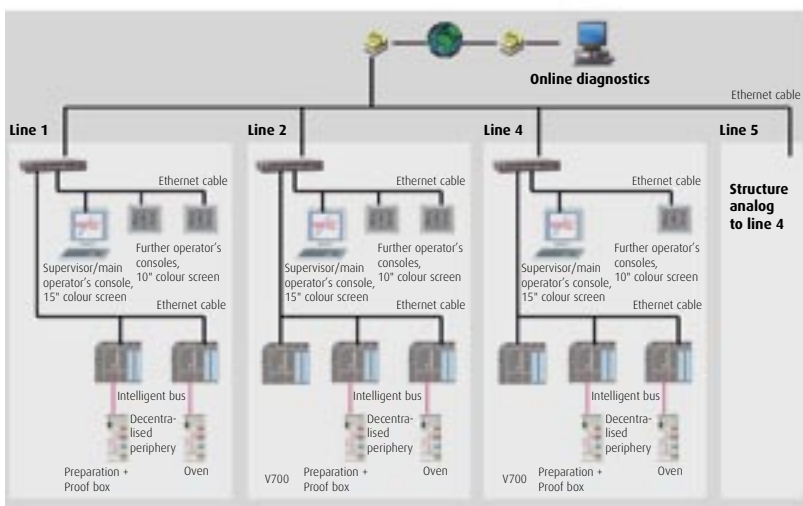
# CONTROL SYSTEMS

For the control of the MEGADOR Oven up to the whole production range, it is possible to use both PLC control systems or PC-Client-Server architectures. Both alternatives are in the standard version equipped with process visualisation monitors and a range of touch screen units to operate the systems. For PC environments the standard application is automationX®. The PLC Version's operation is via Siemens-Hard- and -Software (others on request). An interface to a customer's personal ERP-System is also possible, as is an online connection to our service departments.



All relevant processing parameters of the production line or single oven are stored on the basis of recipes and can be changed or edited on the touch screen monitor. Changes can even be made during running processes. Here the authorised operator is asked to decide whether the changes are valid only for this batch, or if they are to be saved as permanent changes to the data file in the recipe storage system.

PC based operating. Software: automationX®



SPS based operating. Siemens hard and software.

## SALES

**WERNER & PFLEIDERER**  
**Industrielle Backtechnik GmbH**  
Frankfurter Strasse 17  
D-71732 Tamm  
Germany  
Fon + 49 (0) 7141-202-0  
Fax + 49 (0) 7141-202-111  
info@wpib.de  
www.wpib.de

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