

# PELLADOR

## PELLADOR®

Directly fired wood-burning oven with  
pellet burner for untreated wood pellets

## WP BAKERYGROUP

WP BAKERYGROUP is the company for bakers. Our comprehensive range of high-quality machines and equipment is aimed at the requirements of bakeries worldwide. We provide baking technology for every step in the process – starting with kneading, dividing & moulding, through to proving & refrigerating and finally baking in both production and shop environments.

Our motto is **‘think process!’**. Because only when all the separate processes are perfectly in tune with one another, is it possible to achieve consistently high quality and cost-effectiveness.

- Measurable energy savings
- Less waste
- Higher productivity
- Very simple machine operation
- Reproducible product quality

Day after day

**think process !**

 **Werner & Pfleiderer**  
Bakery Technologies

 **Haton**

 **Werner & Pfleiderer**  
Industrial Bakery Technologies

 **Kemper**

 **Werner & Pfleiderer**  
Bakery Cooling

 **Winkler**

 **Werner & Pfleiderer**  
Instore Baking

 **BackNet**  
Bakery Software

 **Werner & Pfleiderer**  
Bakery Service

## **WP CompetenceCenter**

- \_ Mixing.** Emil Kemper GmbH, Rietberg
- \_ Dividing & moulding Rolls.** Emil Kemper GmbH, Rietberg
- \_ Dividing & moulding Bread.** Werner & Pfleiderer Haton B.V., NL-Panningen
- \_ Baking.** Werner & Pfleiderer Lebensmitteltechnik GmbH, Dinkelsbühl
- \_ In-store baking.** Werner & Pfleiderer Sachsen GmbH, Sohland
- \_ Proofing & Cooling.** Werner & Pfleiderer Koeling Benelux B.V., NL-Panningen
- \_ Laminating.** Werner & Pfleiderer Industrielle Backtechnik GmbH, Tamm
- \_ Engineering.** Werner & Pfleiderer Industrielle Backtechnik GmbH, Tamm
- \_ Bakery software.** BackNet E&S GmbH, Muggensturm

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# PELLADOR





## PELLADOR®

What used to be completely normal, is something quite special these days – bread from a wood-burning oven. Its taste is second to none, many customers love it.

The **PELLADOR®** from the **WP BAKERYGROUP** is a multi deck baking oven fired with wood pellets. The gas is directed straight to the baking chamber and burns CO<sub>2</sub> neutral with an open flame.

The benefits of the oven lie in its extremely favourable energy balance – wood is a renewable, CO<sub>2</sub>-neutral raw material – and in its ‘taste-forming’ design.



**Werner & Pfleiderer** – since 1877 we have been designing, manufacturing and installing machinery and equipment for producing baking products. Today we are one of the leading suppliers of intelligent solutions for dough production and processing in the world. Within the **WP BAKERY-GROUP**, **WP Bakery Technologies** occupies the ‘oven technology’ product segment.

We deliver technical solutions that satisfy the highest standards. Together with our clients, we develop concepts that meet the requirements of the markets and show the way for the future of the industry.

The **PELLADOR®** is a directly fired wood-burning multi deck baking oven. A pellet burner burns untreated wood pellets (DIN 51731) in a burning chamber; the resulting gas is fed into the baking chamber and burns there with an open flame. Each deck has at least one pellet burner.

Firing \_ Heating \_ Inserting \_ Baking



# PELLADOR®



**Wood-burning oven** with a baking area of **4.8 – 12.96 m²** and **2 – 3 decks**.

The **PELLADOR®** is fired with wood pellets as a source of energy. It has an integrated steam generation device and is distinguished by its reasonable energy balance. Baking products with a natural aroma are produced in an environmentally friendly way that conserves resources.

For convenient loading that relieves staff, the **PELLADOR®** can be combined with the loading systems from Werner & Pfleiderer.

## Benefits

- Higher added value in the market – higher bread price
- Use of environmentally friendly, renewable sources of energy creates confidence among customers
- Wood-burning oven-baked bread is all the rage
- New products and environmental awareness automatically attract new customers to the store
- No product comparability with competitors
- Products have intensive wood flavour (aroma)
- No bitter parts from soot on bread/pastry
- Clean floor due to automatic extraction during insertion in loading mode
- Oven can produce consistently high quality of products
- High quality of pellets is guaranteed in contrast to variable quality of firewood

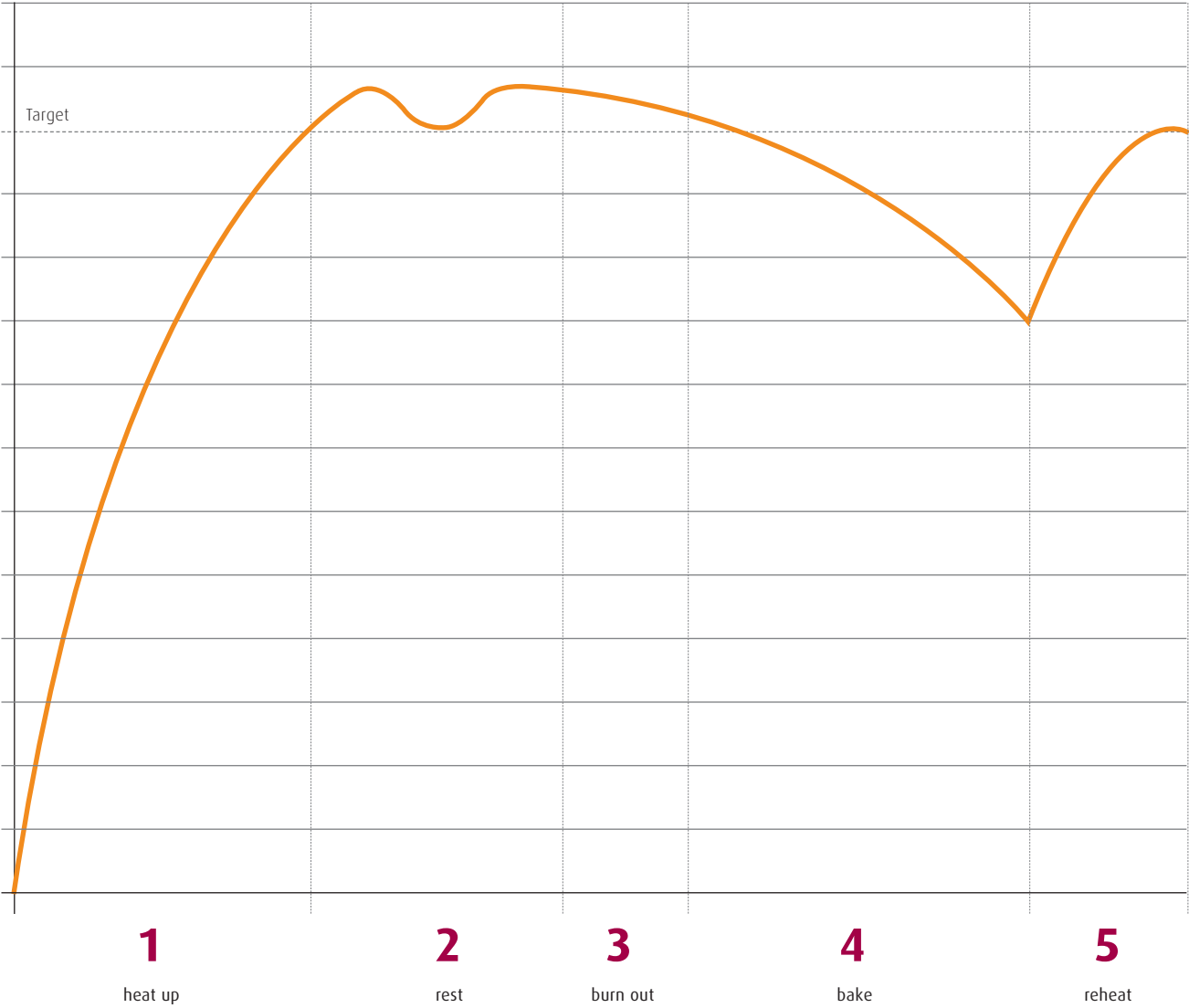


PRODUCTS	Equipment	Specials
Wheat bread Rye bread Ciabatta Baguettes Small pastries Moulded products Pizza Individual pastries Batch pastries	Number of decks 2 – 3 Deck width 1.2 – 1.8 m Deck depth 2.0 – 2.4 m Baking area 4.8 – 12.96 m²	– Fired with wood pellets – Integrated steam generation – Low energy losst



Operating method

- 1 Switch on flame and heat up to target temperature
- 2 Let oven rest at insertion temperature
- 3 Switch off flame
- 4 Insert and bake with falling temperature
- 5 Heat back up to insertion temperature for next batch
- Repeat the baking process as described under 2-4



**Wood-burning oven with a baking area of 4.8 to 12.96 m<sup>2</sup>**

The wood-burning **PELLADOR**® is a directly fired multi-level baking oven. A pellet burner burns untreated wood pellets (DIN 51731) in a burning chamber. The resulting gas is fed into the baking chamber and burns there CO<sub>2</sub> neutral with an open flame. Each deck has at least one pellet burner.











# Oven types

Type	PELLADOR® 2/12.20	PELLADOR® 2/18.20	PELLADOR® 3/18.20	PELLADOR® 3/18.24
Number of decks	2	2	3	3
Deck width mm	1,200	1,800	1,800	1,800
Deck depth mm	2,000	2,000	2,000	2,400
Baking area m²	4.80	7.20	10.80	12.96
Heat output kW	120	165	250	300
Elec. connection kVA	4.4	8.4	12.6	12.6
Length mm	2,733*	2,733*	2,733*	3,133*
Width mm	1,960	2,560	2,560	2,560
Height mm	2,640	2,640	2,899	2,899

*\*plus 2,000 mm working area behind the oven*

## Technical benefits

- Smaller standing area compared to brick-lined oven
- Oven depth 2,000/2,400 mm (standard oven dimensions same as MATADOR® MD), other depths on request
- Short assembly time on site
- Manual or automatic loading possible
- Short heat-up phase
- Multiple loading each day possible
- Low energy requirement
- Steamer for each deck through newly developed flue gas recovery process (saves energy)
- Oven comes with two decks as standard, three decks as an option (observe permitted floor loads)
- Complies with emission limits
- No or only low environmental impact in comparison to gas-heated ovens, oil-heated ovens and traditional wood-burning ovens
- No energy shortage, as wood is a renewable raw material and CO<sub>2</sub> neutral
- No soot formation in baking chamber as with traditional wood-burning ovens
- Oven can be transported

## Steam system

- 1 Oven door
- 2 Exhaust gas from fire source
- 3 Water supply (cold)
- 4 Steam / steam generator
- 5 Chimney
- 6 Insulation



# Loading systems

The loading systems from Werner & Pfleiderer are ideally suited for automating the production process at the ovens and to relieve members of staff from heavy physical work. The systems are based on a track installation and a moving unit, whose range of movement is safeguarded by barriers and photo sensors. The integrated control system can be used to individually programme the loading and emptying processes and run fully or semi-automatically. This prevents baking times from falling below or exceeding the target time. Loading products when the baking temperature is incorrect is ruled out.

## Fully automatic loading systems

The **OBER® PRO** is designed for a volume of more than 800 kg/hour. It is able to supply up to 8 multi-level ovens or 48 decks. At the same time it is very fast. Its travel times moving sideways can be defined between 0.13 and 2.0 m/sec: vertically it moves at 1.0 m/sec. Loading is completed at 0.5 m/sec, emptying at 0.35 m/sec. It has a free-standing moving device with friction drive.

The **OBER®** is designed for a volume of up to 800 kg/hour. It is able to supply up to 3 multi-level ovens or 24 decks. Its vertical and horizontal travel time is 0.6 m/sec. Loading is completed at 0.5 m/sec, emptying at 0.35 m/sec. It has a free-standing moving device with friction drive.

The **STEWARD®** is designed for a volume of up to 650 kg/hour. It serves up to 3 multi-level ovens with a max. of 18 decks. Its travel time moving vertically is 0.125 m/s, horizontally 0.3 m/s.

## Semi-automatic loading systems

The **PAGE®** has an output of up to 650 kg/hour. It serves up to 3 multi-level ovens with a max. of 18 decks. It moves at 0.125 m/s travelling sideways, 0.3 m/s travelling vertically. Each axis on the loading unit is controlled with a dead-man's control. The movement continues as long as the button is pressed. This system does not require any safety fence to secure the machine's range of movement.





## Products

Bread  
Small pastries from 60 g

## Output

### OBER® PRO

*Dough quantity*

> 800 kg/h

*Loading and emptying*

0,5/0,35 m/sec

### OBER®

*Dough quantity*

< 800 kg/h

*Loading and emptying*

0,5/0,35 m/sec

### STEWARD®

*Dough quantity*

< 650 kg/h

*Loading and emptying*

0,5/0,35 m/sec

### PAGE®

*Dough quantity*

< 650 kg/h

*Loading and emptying*

0,5/0,35 m/sec

## Specials

### OBER® PRO

- Loading/emptying  
up to 8 ovens or 200 m<sup>2</sup> of  
baking area/48 decks max.

### OBER®

- Loading/emptying  
up to 3 ovens or 78 m<sup>2</sup> of  
baking area/24 decks max.

## Interfaces

- Multi deck baking ovens
- Conveyor systems

# CHECK

Pos I	<b>Advice</b>	Planning . Design . Equipment . References . Tests
Pos II	<b>Equipment</b>	Hardware . Software . Mechanics . Options . Baker know-how
Pos III	<b>Modularity</b>	Space required . Retrofitting
Pos IV	<b>Performance</b>	Quantities/hour . Volumes . Weights
Pos V	<b>Quality</b>	TA . Dough quality . Temperature . Taste
Pos VI	<b>Costs</b>	Investment . Running costs . Energy consumption . ROI
Pos VII	<b>WorkFlow</b>	Interfaces . Process management
Pos VIII	<b>System responsibility</b>	Complete system integration . Setting up individual sequences
Pos IX	<b>Service</b>	Self service . Service presence . Remote maintenance
Pos X	<b>Group expertise</b>	Think process . Interface skills . Solutions from one source

- \_ Enquiry
- \_ Production analysis
- \_ Conceptual design
- \_ Planning
- \_ Quotation
- \_ Purchase order
- \_ Production
- \_ Inspection
- \_ Delivery
- \_ Assembly
- \_ Integration
- \_ Commissioning
- \_ Training
- \_ Service











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*The **WP BAKERYGROUP** has subsidiaries in France, Italy, Belgium, Russia and the USA.*

*You will also find dealerships with service stations all over the world.*

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