

think process!

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WP BAKERYGROUP

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Bakery Technologies

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WP Kemper

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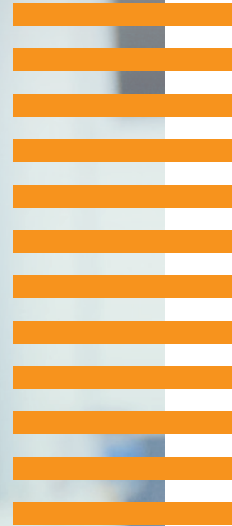
WP PELLADOR

Traditional wood-fired oven baking without compromise



We are **WP**

We are a WPBAKERYGROUP company. We have been developing technical solutions for bakery businesses of any size for over 140 years. We design, produce, install and service baking ovens, machines and systems worldwide for artisan bakeries just as well as for production facilities working on an industrial scale. Our MATADOR® deck oven is a legend. We are the world market leader and the experts for any type of baking oven, loading system, dough processing line, and vacuum conditioning. We thus cover the entire process chain for the production of baked goods from mixing, dividing and molding, preparing, proofing and proofing retarding to baking in deck, rack or tunnel ovens as well as oven loading, fat baking and vacuum conditioning.



Baking trendy wood-fired oven bread economically

Wood-fired oven bread is the trend, as many consumers have discovered a preference for artisan, all-natural and wholesome food. They greatly value the crispy, flavorful crust, the juicy crumb, the special aroma and the extended freshness that traditional wood-fired baking provides, and they are prepared to pay a higher price for it.

The principle of the wood-fired oven revisited

Baking in a wood-fired oven is a cultural tradition that goes back thousands of years. It is based on the principle of heating a baking chamber (decks lined with stone slabs) with wood, and making use of the stored heat to bake bread after the wood has burned down and the ash has been removed. Classic wood-fired ovens, however, show low productivity and the baking result is not always consistent. WP Bakery Technologies has revolutionized wood-fired baking with the development of the PELLADOR.



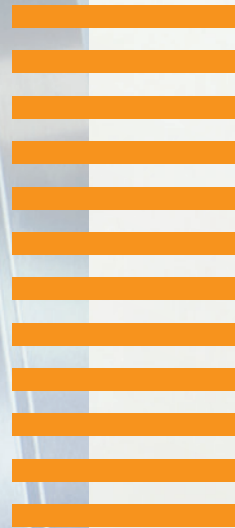
Talk to us! Together, we will find the perfect solution for your success.



WP PELLADOR
Wood-fired oven bread
in perfection

The WP PELLADOR: best-quality, efficiently produced wood-fired oven bread

PELLADOR ovens are fired with pellets instead of wood logs. This ensures that the baking process is exactly what bakeries need for efficient production today: fast, dependable, energy-saving and sustainable, with the plus in quality of traditionally crafted products that appeal to the most demanding consumers.



WP PELLADOR

Efficient baking powered by energy from sustainable sources

With the PELLADOR, WP has developed a series of wood-fired ovens that successfully harmonizes the advantages of a wood-fired baking oven and the demand of continuous production in modern bakeries. The underlying technology involves two pellet burners per deck. The gases produced in the combustion chamber are conducted directly into the baking chamber, where they burn with an open flame and heat up the chamber's stone walls. The interval between baking processes can be significantly reduced, thus ensuring high productivity.

PRECISE BAKING TEMPERATURE CONTROL

In conventional wood-fired ovens, the temperature in the oven can only be controlled to a limited extent. The quality of the firewood is not always consistent, and once lit the wood cannot be stopped from burning down. The PELLADOR offers much more targeted temperature control. Pellets are of consistently good quality. The preferred baking chamber temperature can be worked out from empirical values and the baking chamber's control characteristics. The combustion process can be interrupted by stopping the pellet feed; there will only be a short after-burning. As a result, the baked products are of a controllable, consistently high quality.

SMALLER FOOTPRINT, INCREASED PRODUCTIVITY

Unlike classic wood-fired ovens, the Pellador can have 2 to 3 baking chambers arranged one above the other. It is also possible to combine two Pellador of 3 decks each to form a Pellador tower with 6 decks. A loading system can be used to load and unload the baking chamber to achieve maximum production capacity with minimum floor space.

The PELLADOR oven types at a glance

More variants on request, 5- and 6-deck variants with loading units only

Type	2/12.16	3/12.16	2/18.20	3/18.20	3/18.24	5/18.20	5/18.24	6/18.24
Number of decks	2	3	2	3	3	5	5	6
Deck width mm	1,200	1,200	1,800	1,800	1,800	1,800	1,800	1,800
Deck depth mm	1,600	1,600	2,000	2,000	2,400	2,000	2,400	2,400
Baking area m ²	3.8	5.8	7.2	10.8	12.96	18	21.6	25.9
Heating capacity kW	100	150	165	250	300	420	500	600
Connected load kVA	4.4	6.4	8.4	12.6	12.6	21	21	21
Length ¹ mm	2,295	2,295	2,695	2,695	3,095	2,695	3,095	3,095
Width mm	2,270	2,270	2,770	2,770	2,770	2,860	2,860	2,860
Height ² mm	3,060	3,580	3,060	3,580	3,580	5,010	5,010	5,510
Weight kg	5,100	6,600	10,000	12,000	13,500	21,000	24,000	30,000

¹ without work space behind the oven ² incl. vapor slider and pellet container

Real wood flame burning directly in the baking chamber

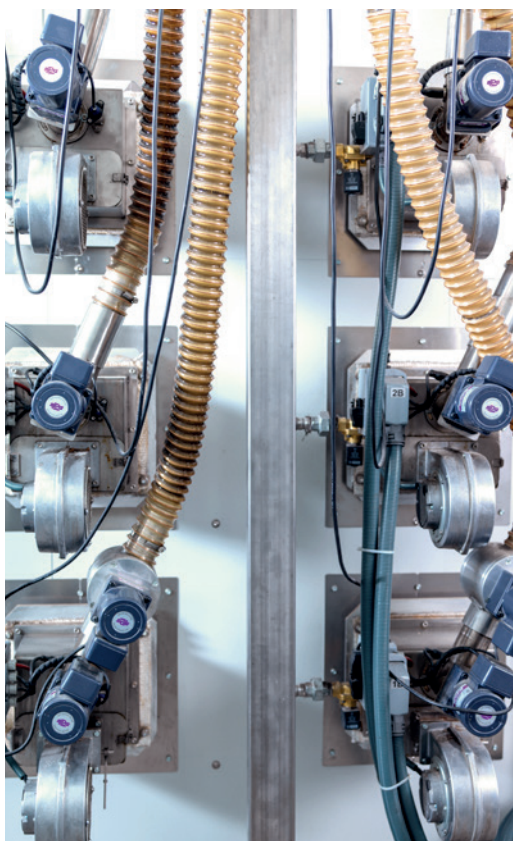


The advantages at a glance

- Directly wood-fired oven for the production of wood-fired oven baked goods
- Products may be labeled wood-fired oven bread/ bread rolls according to the German Federal Ministry of Food and Agriculture (BMEL)
- 2 pellet burners per deck
- 2 direct flames burning in the baking chambers
- Compliance with all applicable emission standards
- Use of Siemens touch control

Green future

Sustainability and carbon neutrality through the use of untreated, renewable raw materials.



PELLADOR with 2 pellet burners per oven deck

WP PELLADOR ZYKLOTHERM®

Increased efficiency through central burner

WP deploys the “Zyklotherm®” principle, already established in the successful MATADOR deck ovens, in its wood-fired baking ovens too, to further significantly boost efficiency and productivity.

ONE BURNER FOR THE ENTIRE OVEN

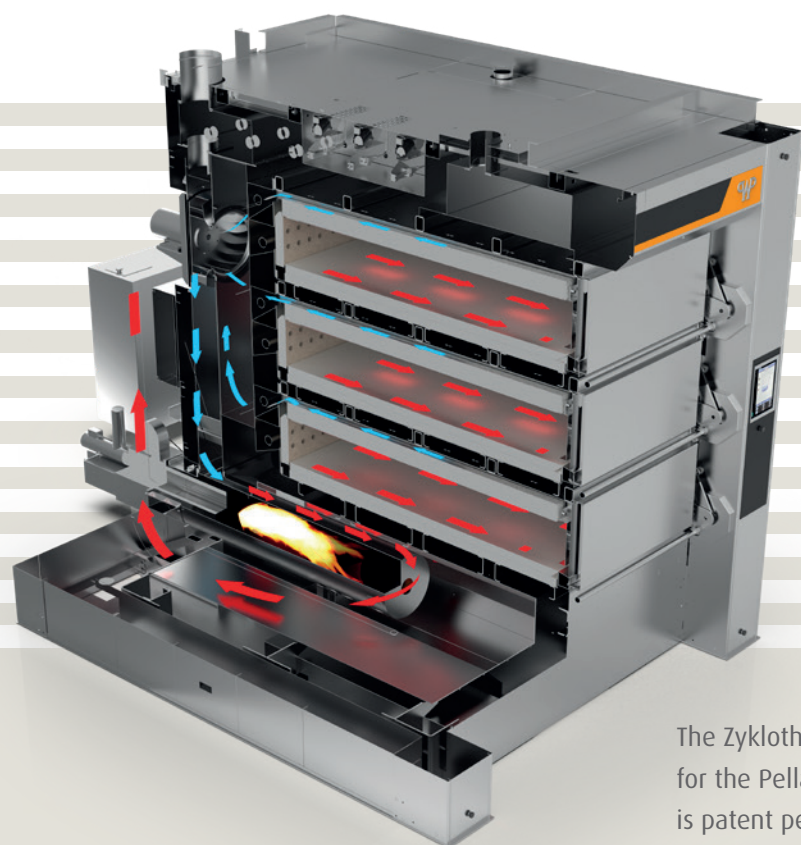
In the PELLADOR Zyklotherm®, a single, centrally arranged pellet burner generates the energy required for heating the baking chambers. Channels distribute the exhaust gases and feed them to the decks. The gases enter the baking chambers without a flame. After heating the stone slabs, the gases are not discharged into the flue but instead fed back to the central combustion chamber. Here they are mixed with fresh exhaust gas and fed back into the heating cycle, thus optimizing the efficiency of heat energy and lowering pellet consumption. Ash no longer accumulates in the ovens thanks to the use of the central burner, and the cleaning effort is significantly reduced.

INDIVIDUALLY CONTROLLABLE DECK OVENS

Each baking chamber can be separately controlled. As soon as the desired baking temperature has been reached, the inlet and outlet valves are closed to interrupt the supply of exhaust gas, and the baking process can start.

CONTINUOUS COMBUSTION

Thanks to the controllable exhaust gas supply via channels and valves, there is no longer any need to interrupt the combustion process. The time-consuming start-up phase and the burn-off phase after the pellet supply has ended are eliminated. In addition, heating the ceiling slabs from both sides further accelerates the energy input into the baking chamber lining, which significantly cuts heating times.



The Zyklotherm® functional principle for the Pellador is unique and is patent pending.



The advantages at a glance

- Directly wood-fired oven for the production of wood-fired oven baked goods
- Products may be labeled wood-fired oven bread/bread rolls according to the German Federal Ministry of Food and Agriculture (BMEL)
- One central pellet burner for the entire oven and the Zyklotherm® heating system
- Compliance with all applicable emission standards
- Use of Siemens touch control

Increased productivity

Reduced heating times and short recovery times boost output.

Greater efficiency

Low pellet consumption thanks to improved utilization of exhaust gas energy.

Precise control characteristics

Simple and precise temperature regulation due to inlet and outlet valves for the exhaust gases.

Easier cleaning

No ash residue in the combustion chambers.

Green future

Sustainability and carbon neutrality through the use of untreated, renewable raw materials.

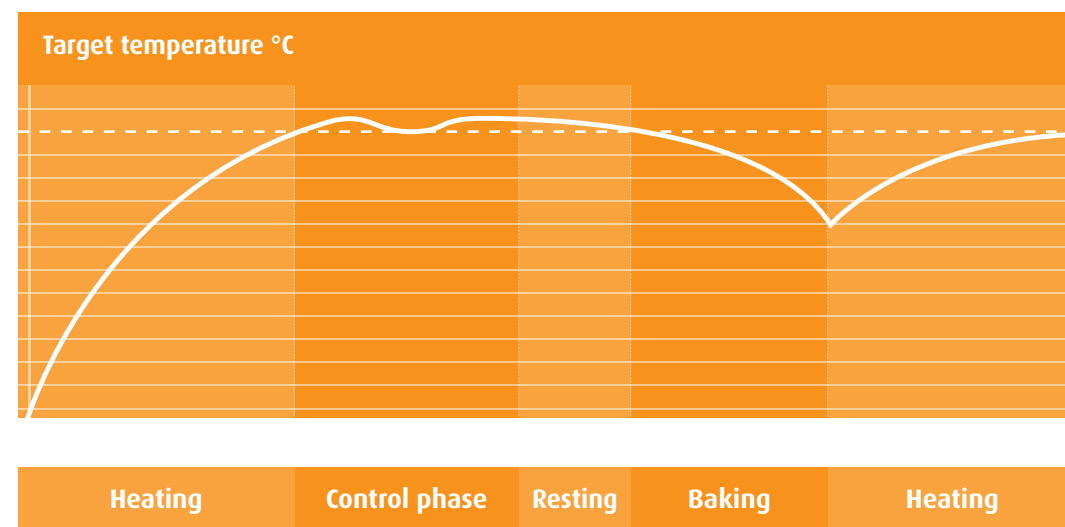
WP PELLADOR ZYKLOTHERM®

Technology and details

- Directly wood-fired oven
- Pellet burner for untreated wood pellets
- Smaller footprint compared to brick-built wood-fired oven
- Deck oven depth 2,000 or 2,400 mm, other depths on request
- Manual, semi-automatic or fully automatic loading using, for example, the STEWARD or OBER series loading systems
- Short heating phase and recovery times
- Low energy consumption
- PELLADOR with Zyklotherm® system (patent pending)
- Compliance with all applicable emission limits
- Newly developed exhaust gas recovery to cut energy consumption
- No soot build-up in the baking chamber

Baking with the PELLADOR Zyklotherm® – step by step

- 1 Switch on the burner.
- 2 Heat up the oven to loading temperature.
- 3 Switch off the burner or close the inlet and outlet valves when the desired temperature has been reached.
- 4 Load and bake the products at decreasing temperature.
- 5 Unload the baked goods, and heat up to loading temperature again for the next baking cycle. Switch on the burner or open the inlet and outlet valves.
- 6 Repeat steps 2 to 4 of the baking cycle.



Layout of a PELLADOR Zyklotherm® deck oven

Oven types and specifications on request

- | | |
|------------------------------------|--------------------------|
| 1 Oven door | 4 Vapor/vapor generation |
| 2 Exhaust gases from firing source | 5 Flue |
| 3 Water supply (cold) | 6 Insulation |

