



Series 4

Rotating rack oven Fuel-oil / Gas



Designed for confectioners as well as bakers, the hi-tech features of the Series 4 rotating rack ovens guarantee real benefits:

- Extremely compact
- Offers an excellent output
- Environment-friendly
- Ensures an outstanding and consistent baking quality
- Multifunctional (baking and pastry-making)
- Easy to clean and maintain

Technology dedicated to baking quality

Selecting a Series 4 M/G oven is the guarantee of obtaining absolutely consistent baking results, from the very first to the very last tray on your rack.

A Series 4 rotary rack oven will meet the expectations of the most demanding professional:

■ With **Soft Flow technology**, the heat is evenly diffused throughout the entire height and depth of the rack to ensure a uniform baking quality. The smoothness of this air flow allows the baking of confectionery or delicate items that would not withstand a more powerful airflow.

■ A new generation **ESG steam system** gives off sufficient steam for all types of production. It settles evenly on all products.

Thanks to this technological breakthrough, the Series 4 rotary rack ovens can be used for both **bread and pastry products**.

With perfectly development and baked right through, you will offer top quality products to your customers day after day!



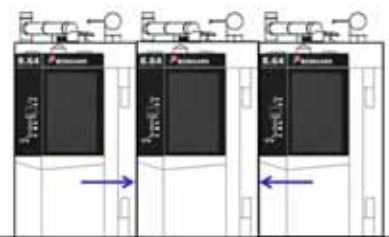
Modularity and productivity

Optimise your floor space

In a situation where every square metre is costly and must be used, Series 4 ovens will allow you to optimise space by providing you with the maximum possible baking area.

The Series 4 fuel oil / gas ovens can be built-in on either side, whether installed in a line or right in the corner of the bakery.

The door handle and the control panel are usually installed on the left hand side. However, this can easily be changed at time of order with no additional charge, regardless of oven configuration.



The most compact rotating rack oven on the market

Taking an 8.64 fuel oil / gas oven as an example:

- 1440 mm width, 1980 mm depth, 2300 mm height
- Baking tray 600 x 800 mm
- 144 to 152 baguettes of 200 g on 18 or 19 levels
- Stainless steel baking chamber. Angles less than 45° for easy and perfect cleaning
- High-performance heat exchanger guaranteed for 3 years
- Retractable access ramp for perfect and long-lasting door tightness
- Ergonomic handle on the left (standard) or on the right (option), oversized hinges, ventilated double glazing guarantees perfect door function (reliability, insulation, safety).
- Steam generator consisting of 36 cast iron ESG modules. An *ESG Plus* option is available at time of order (2 x 36 modules)
- Steam extraction system with 2 electric valves to automatically drain the chamber at the end of the baking cycle.
- High-performance insulation using cross-layered rock wool panels
- Optional hood
- Burner on the right or left (choice to be indicated at time of order)

With the Series 4, you are at the controls



Opticom electronic control (standard)

- Manual mode
- Automatic mode, up to 30 pre-programmable baking recipes
- Optimised pre-heating taking into account the residual temperature of the oven
- Impact-resistant keyboard, sealed and smooth
- Timed, pulsating steam injection
- Adjustable extractor speed
- Delayed start-up timer



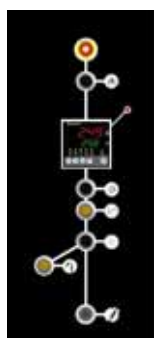
Intuitiv' electronic control (optional)

Clock:

- 2 deferred start times, per day
- 2 stop times, per day
- Possibility of selective start-up modification
- Possibility of extending baking time at the end of the cycle

Baking

- 200 programmable baking recipes (25 characters per name)
- 4 temperature adjustment phases during each baking cycle
- Recipe programming with declining heat cycle possible
- 2 programmable steam cycles
- Automatic or manual steam injection
- 2 programmable steam vent openings
- 1 timer
- 2 extraction speeds
- Setting in degrees °F or °C
- Baking programm shut-down key during all phases
- Alarm history log



Ergocom electromechanical control (optional)

- Visual oven operating information
- Temperature regulator
- Baking timer
- On/Off switch
- Steam injection
- Rack rotation
- Steam vent opening
- Steam injection timer
- Delayed start-up timer



ESG ("Egg" Steam Generator)

The guarantee of a generous and consistent steam supply

The ESG steam generator rises to the challenge of combining extreme compactness with optimum performance.

Designed to be housed within the air ducts of the Series 4 ovens, the steam generator consists of modules that interlock forming a column of 36 cast iron elements.

The result of an in-depth study, the performance of these modules was first computer simulated to find the best shape for ensuring a maximum exchange area between the cast iron, when heated to the core, and the water.

The overall dimensions of the Series 4 ovens were taken into account right from the early design stage and gave rise to some clever features.

The ESG steam generator is, for example, directly integrated within the air duct, so the baking chamber is entirely dedicated to receipt of the rack and its rotation (diagram 1). Should increased volume be required, an additional ESG column can be accommodated within the second air duct (diagram 2).



Diagram 1: standard ESG

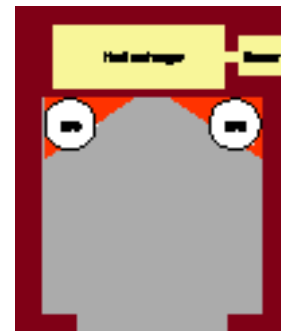
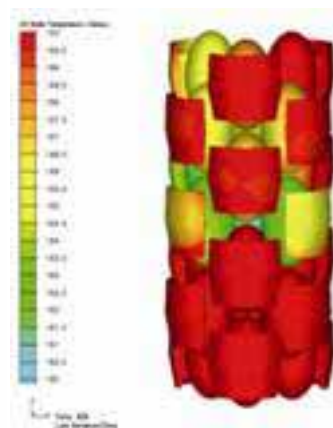


Diagram 2: ESG Plus Option



To function properly, the cast iron of the steam generator must be heated to at least 180°C in order to vaporise the water.

Even the least hot parts of the BONGARD ESG already reach a temperature of 180°C.

This is the guarantee of efficient steam quickly available for baking.

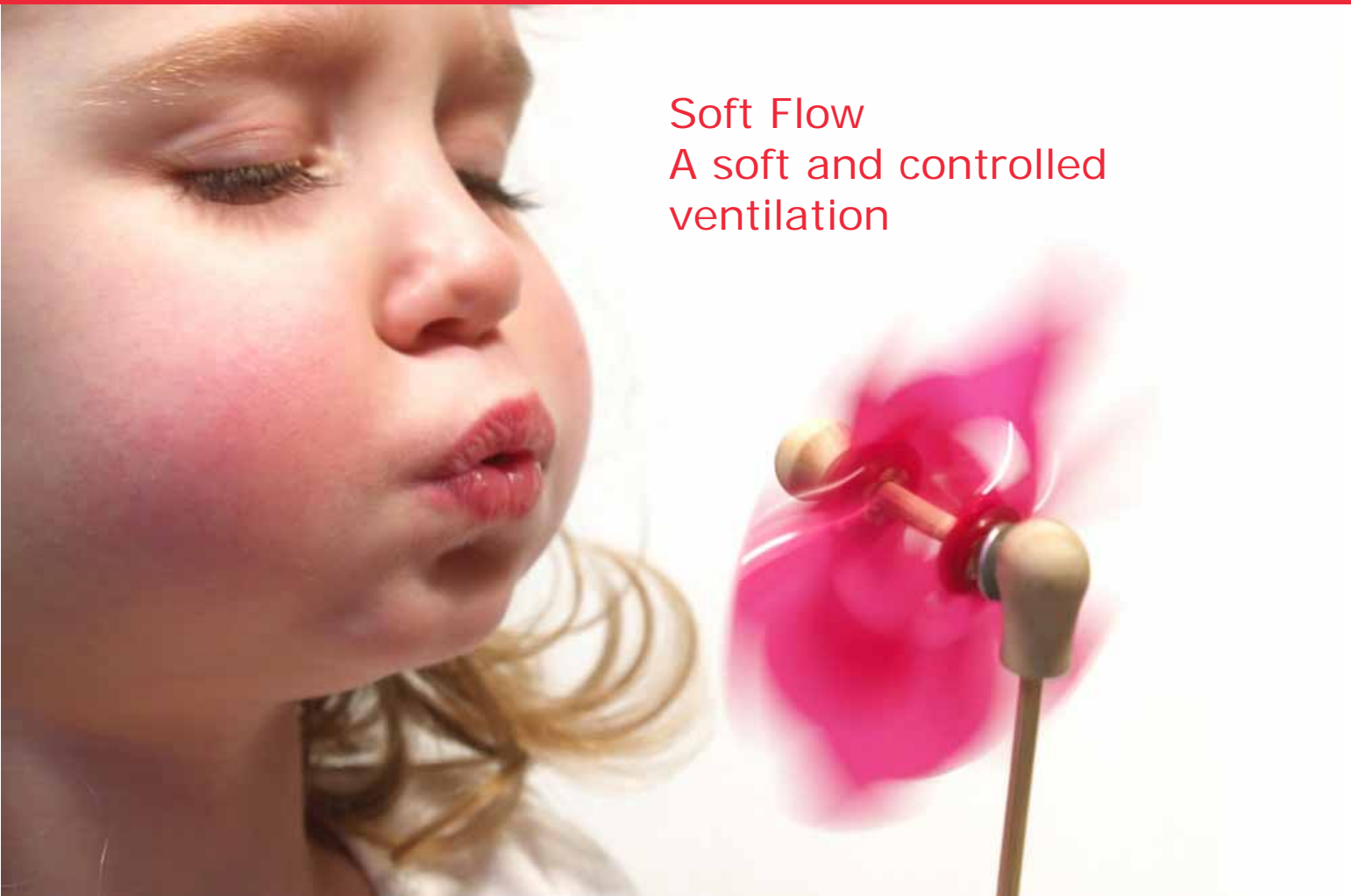
Important information...

Subject of a registered European patent, ESG is an exclusive BONGARD product.

ESG: "Egg" steam generator

A standard ESG steam generator consists of 36 stacked ESG modules, i.e. 100 kg of cast iron.

The ESG Plus option: 72 stacked ESG modules i.e. 200 kg of cast iron.



Soft Flow A soft and controlled ventilation

■ Soft Flow: Adjustable efficiency

The control of the air flow is used to combine **consistency, efficiency and gentle ventilation.**

Special attention was given to the geometric design of the blower system with 3 louvers stretching the entire height of the baking chamber. This special feature allows the diffusion of hot air over the entire height of the rack, leading to a consistent baking quality.

The hot air flows slowly through the inside of the baking chamber, thereby achieving an **outstanding result.** The air actually surrounds each product without drying it out, giving longer shelf life and a more harmonious development.

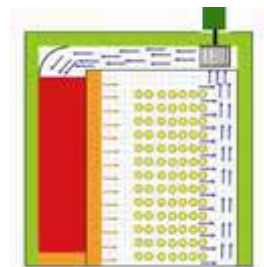
■ Baking light products is no longer a problem

You will no longer hesitate to bake light products: Thanks to soft-flow, meringues, toppings, chouquettes and icing sugar will remain perfectly in place on the baking pan!

Similarly, flour and icing sugar will no longer be blown away inside the baking chamber.



The baking consistency is ensured by the rotation of the rack as well as the presence of 3 blowing louvers.



The air flow passes slowly throughout the chamber (8 metres per second)



Danish, pastry products, bakery products, standard or delicate,...all of your creation will be perfectly baked in a Serie 4 oven.

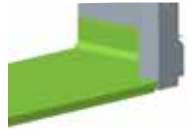
Ergonomics dedicated to hygiene

The baking chamber of the Series 4 ovens was designed to facilitate cleaning and to improve hygiene to comply with the most stringent European standards.



Made entirely of stainless steel, the baking chamber is assembled without any apparent welding, presenting a smooth and safe structure. The use of plain non-perforated sheets and a steam generator retracted into the air ducts also reduces the accumulation of residue.

This same concern has directed our work on the chamber floor, with the edges raised at an angle of 45° to allow easy access to dirty areas.



This also led us to select as standard a rack lifting system that enables us to create a perfectly flat and easy to maintain floor. The turntable system is still available as an option.



At BONGARD, there is no question of creating a design just for the sake of it!

The "signature" of the Series 4, its glass fronted oven, was designed from the start to unite the concepts of hygiene and cleanability.

We have made the space between the two front windows easily accessible to allow you to easily carry out cleaning whenever necessary and to maintain perfect visibility.



Magnets allow the external window to open easily



Thanks to its slanting sills, the space between the two windows helps reduce the accumulation of residue and allows perfect cleaning.



When elegance meets working comfort

- **Acting as a bumper**, the handle of the Series 4 oven includes an accessory holder to keep cloths, gloves and hooks handy (①).
- **Designed as a command station**, the control panel is situated **right next to the glass surface**: This makes it possible to simultaneously monitor the baking progress of products and to modify the parameters (②).
- **The oversized hinges** ensure the integrity of the door (③).



The ergonomic handle secures the door

What could be more normal than pulling a handle towards you to open a door? **This natural movement is also the most comfortable one for your joints: This is why we chose this configuration for the Series 4 rotary rack ovens.**

The door is closed by pushing the handle: A mechanical system reduces the effort required when closing the door to ensure the rack is raised. Locking is achieved within the same movement by pressing on the handle.



When savings
rime with ecology
everyone wins

Avoid excessive exhaust fume output!

The exchanger of the Series 4 rotating rack oven was created with the concept of optimum dimensions and efficiency.

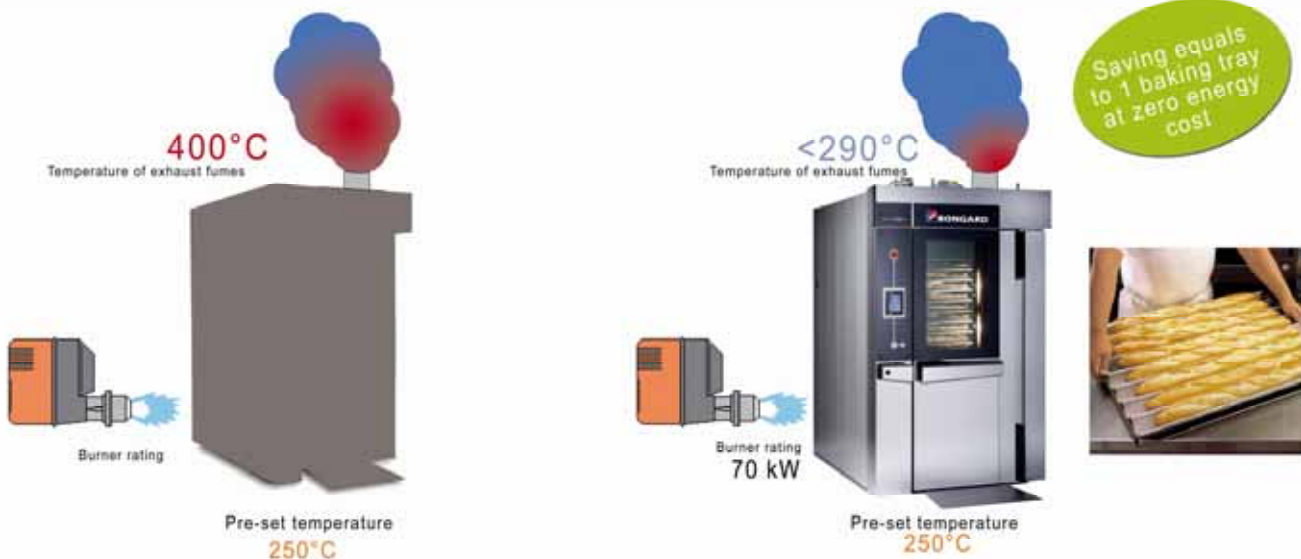
This key element considerably lowers the temperature of extracted exhaust fume by improving the heat exchange performance and the recovery of released energy for reintroduction into the baking process.

■ **Significant energy saving:**

For a baking temperature of 250°C, the exhaust fume temperature is only about 300°C.

■ **An obvious benefit for the environment:**

Lowering the exhaust fume combustion temperature minimises the production of polluting gases and irritants such as nitrogen oxides (heavily implicated in acid rain and the depletion of the ozone layer).



Model	8.64 E	8.64 MG	8.84 E	8.84 MG
Reference	56200011	56200001	56300011	56300001
Drive system				
Mechanical rack lifting system	■	■	■	■
Turntable	□	□	□	□
Burner				
Gas burner	-	■	-	■
Fuel-oil burner	-	□	-	□
Access burner on the left	-	■	-	■
Access burner on the right	-	□	-	□
Door handle and control panel				
Left	■	■	■	■
Right	□	□	□	□
Controls				
Electronic controls Opticom	■	■	■	■
Computerized controls Intuitiv	□€	□€	□€	□€
Electromechanical controls Ergocom	□	□	□	□
Headband - Hood - Exhaust fan				
Headband	■	■	■	■
Hood with exhaust fan	□€	□€	□€	□€
Additional options				
Steam pulsed injection	■	■	■	■
Reinforced steam generator	□€	□€	■	■
Brass water solenoid valve	■	■	■	■
Water filter to prevent scale deposits	□€	□€	□€	□€
Arrivée d'air frais sur brûleur	■	■	■	■
Pressure reducing valve kit	■	■	■	■
Electrical supply				
400 V TRI + N 50/60 Hz	■	-	■	-
230 V MONO + N 50/60 Hz	-	■	-	■

■ Standard / □ Option / □ € Option against extra charge

Power features	8.64 E	8.64 MG	8.84 E	8.84 MG
Electric power				
Total connecting power	59 kW	2,1 kW	67 kW	2,1 kW
Exhaust fan connecting power	0,18 kW	0,18 kW	0,18 kW	0,18 kW
Heating power	57 kW	70 kW	65 kW	100 kW
Average gradient of temperature rise	8 - 10°C/min	8 - 10°C/min	8 - 10°C/min	8 - 10°C/min
Maximum baking temperature of the oven	280°C	280°C	280°C	280°C

Caractéristiques dimensionnelles	8.64 E	8.64 MG	8.84 E	8.84 MG
Oven dimensions				
Depth with hood	2240 mm	2430 mm	2440 mm	2630 mm
Depth with headband	1800 mm	1990 mm	2000 mm	2190 mm
Depth on the floor	1800 mm	1990 mm	2000 mm	2190 mm
Depth (door opened)	2610 mm	2800 mm	3000 mm	3200 mm
Width on the floor	1440 mm	1440 mm	1640 mm	1640 mm
Total height, overall	2565 mm	2615 mm	2565 mm	2615 mm
Total height, oven front	2300 mm	2300 mm	2300 mm	2300 mm
Floor area	2,59 m ²	2,86 m ²	3,28 m ²	3,59 m ²
Total weight	1250 kg	1350 kg	1550 kg	1650 kg
Baking chamber				
Maximum rack height	1900 mm	1900 mm	1900 mm	1900 mm
Maximum rack width	680 mm	680 mm	880 mm	880 mm
Maximum rotation Ø	1120 mm	1120 mm	1320 mm	1320 mm
Total acceptable payload	300 kg	300 kg	350 kg	350 kg
Space required to access building site				
Minimum door clearance	830 mm	830 mm	930 mm	930 mm



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Oven complies to CE standards