



# STONEROLL

The combination of an annular tube oven and a rack oven



## THE TRADITION OF GOOD BAKING

### ONLY THE BEST OF WHAT IS GOOD:

Every system devised by man, however ingenious, has its disadvantages. Despite their good baking properties and the ease of handling on minimal footprint, rack ovens are not optimum for all products, bread in particular.

Annular tube ovens deliver outstanding bakery products but the handling of the products, by the nature of the system, proves somewhat more difficult for all deck ovens; the capacity makes the loading and unloading more physically demanding. In large installations, it is therefore almost unavoidable to marry the oven with a HEIN SPIDER fully or semi-automatic feed system.

### What could be more obvious than to combine the two systems in a completely new product?

Despite technical „incompatibilities“ between the two systems, the HEIN Engineers have managed to circumvent the disadvantages of the two different types of oven and succeeded in unifying only their advantages in the new „hybrid“ oven.

The small footprint and easy handling of the rack oven are combined with the even radiant heat and enormous heat storage of the annular tube oven:

### THE STONEROLL

With this oven, you can bake „the old way“: crusty on the outside, soft inside, good texture, finely fragmenting crust, good crumb, outstanding lustre and all this batch after batch at the same temperature for all products on rack trolleys and, which is more, with low energy and maintenance costs. The traditional HEIN quality, the craftsmanship and the first-class materials make the StoneRoll an oven that can find its place in every bakery: equally well as a single oven in a family bakery or as part of a bank of ovens in a large bakery.

The best ingredients, worked by the master-baker with care and love into a dough, deserve nothing less than, after perfect proving, to be baked in the finest oven. The StoneRoll is the final link in the preparation of your products and enables you to maintain the artisanal quality with which you will convince your customers.

## ONE FOR EVERYTHING





HEIN UNIVERSAL



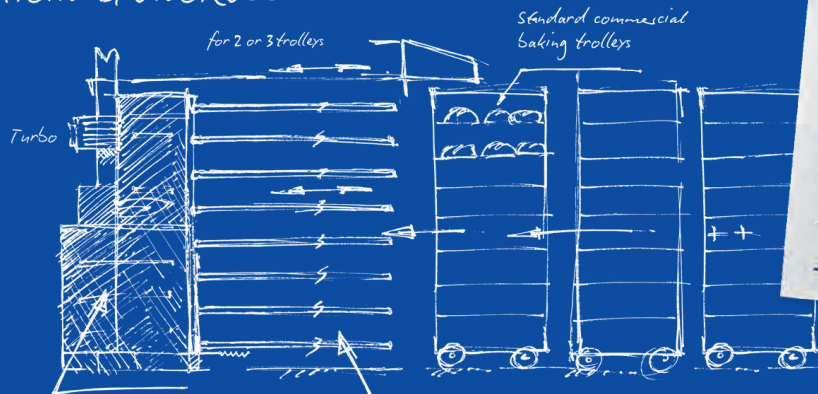
HEIN LUXROTOR



The STONEROLL annular tube rack oven, a heat transfer oven, is the almost perfect synthesis of the known good baking properties of the heat transfer deck oven - e.g. the Hein UNIVERSAL deck oven - and the ergonomic and technical advantages of the Hein LUXROTOR rack oven.

THE VISION ↓ THE IMPLEMENTATION ↑

HEIN STONEROLL



Monoblock thermal stone firing, cast in one piece massive energy store

Proven baking technology as in annular tube oven efficient radiant heat

- REQUIREMENTS
- Excellent value for money
  - Economical baking with the best quality
  - Well-ried radiant heat
  - Simple and disable technology
  - Maximum energy yield
  - Low maintenance costs



## SYSTEM DESCRIPTION

The innovative heating system of the StoneRoll cannot be likened to any existing heating system. In a new kind of casting process, the key component of the firing system is cast from a special, high-quality and fireproof stone mass and, together with the annular tubes, forms the Monoblock Thermalstone Firing (MTF).

As in annular tube ovens, the combustion gases produced by the oil or gas burner heat the tubes. In the StoneRoll, the combustion gases circulate, with the added assistance of powerful fans, through an ingenious and remarkably simple system of channels (combustion gas recirculation system).

Just as in the HEIN deck ovens, only seamlessly drawn, high-quality Mannesmann tubes are used in the StoneRoll. Each individual tube is not only tested by Mannesmann but also, after manufacture, by HEIN at a pressure of 500 bar.

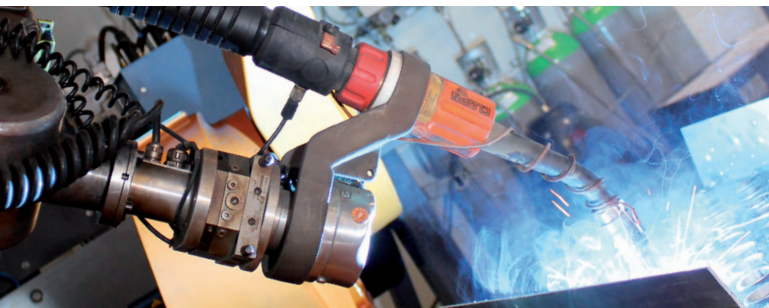
Without pumps and thus without noise, the superheated steam spreads in the tubes, thereby guaranteeing even heating of the oven. The even distribution of the heat is just a matter of the laws of physics.

If desired, for additional, gentle mixing of the oven atmosphere, a turbo-blower can be switched on. The air circulation is so controlled that drying out of the baking product is avoided while crust formation is promoted.

Thanks to the high weight of the Monoblock Thermalstone Firing (MTF), the StoneRoll has an enormous heat storage capacity and can cope with the „batch-after-batch“ baking of all kinds and sizes of loaves, tin and country loaves, fine baking and small baking. All this without a pause and as often as you wish, one after the other.

The newly developed vapour system is heated only by the combustion gases, leading not only to the availability of soft, dense and uniform vapour in the oven cavity but also to an improved energy budget and reduced energy costs.

Apart from the Touchmatic and the burner, you can search the StoneRoll in vain for complicated technical or electronic parts: no positioning motors or valves, no pumps, complicated control components and no moving parts. You run no risk of high maintenance costs.



- |                                     |                              |
|-------------------------------------|------------------------------|
| ① Monoblock thermal stone firing    | ⑦ High-power vapour system   |
| ② Burner                            | ⑧ Steaming extraction system |
| ③ Insulation                        | ⑨ Solid stainless steel door |
| ④ Annular tubes                     | ⑩ Steam extractor hood       |
| ⑤ Combustion gas circulating blower | ⑪ Turbo circulation blower   |
| ⑥ Rack trolley                      |                              |

## THE CONSTRUCTION

The desire was repeatedly expressed to bake with an oven that combines the baking properties of an annular tube oven, with its mild, gentle, radiant heat and good-natured baking behaviour, with the advantageous feed properties of a rack oven, i.e. trolley oven.

From the Luxrotor concept, the greater part of the well-tried oven cavity, delivered in its thousands, was adopted. The moveable, steam-proof oven cavity is built with highly heat resistant materials. The annular tubes, pointing forwards without support, were incorporated in the rear wall as heat transfer modules. For each level, one row of annular tubes (heating from above and below) provides uniform heat transfer.

So that the vapour and heat remain where they belong, in the oven, the oven cavity is closed with our solid, steam-proof door, equipped with a special, reliable lift/lower mechanism.

The best of the annular tube oven was adopted for the StoneRoll: the heavy firing and the annular tubes. The firing located in the bottom part of a deck oven cannot be used in this form in the StoneRoll. In the StoneRoll, the firing is located at the rear and is not built with fire bricks but is cast from a special, high-quality and fire-proof stone mass in a process developed by HEIN.

With the solidly anchored annular tubes, it forms the key part of the StoneRoll: the Monoblock Thermalstone Firing (MTF). The volume, the high weight and the novel material of this unique firing guarantee an enormous heat storage capacity. This results in short burner run-times and low exhaust temperatures.

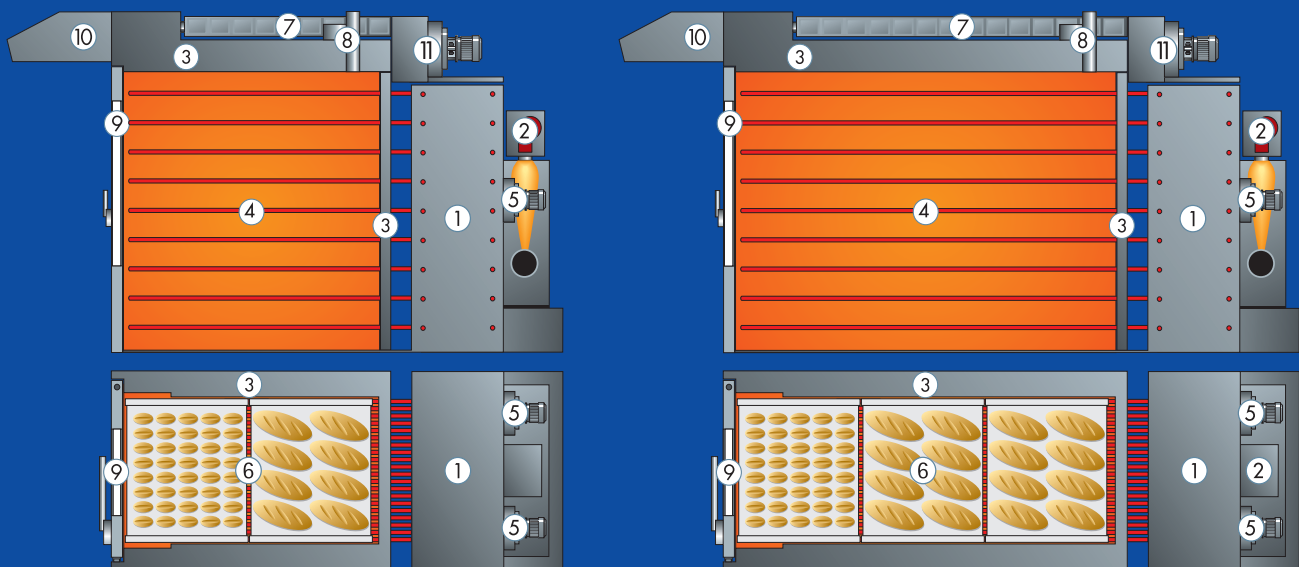
The StoneRoll is equipped with a generously designed, high-power vapour system that really packs punch. The vapour system sits over the oven and is heated only by the exhaust gases, thus extracting the last of the heat from the combustion gases. A high heat reserve to supply sufficient, heavy, wet vapour and low exhaust temperatures with consequently low energy costs are the main properties of this newly developed vapour system.

In the oven cavity, depending on the model, there is room for 2 or 3 rack trolleys with shelf dimensions 80 x 60 cm

(78x58 cm), 2 or 3 rack trolleys with shelf dimensions 100 x 60 cm (98 x 58 cm), with 7 or 8 decks each, one behind the other. An easy to use quick-coupling joins the rack trolleys, thereby permitting rational and speedy loading and unloading of the StoneRoll.

The standard, large extraction hood with its powerful fan immediately draws off the heat and steam when loading and unloading. As a useful additional function, the hood of the StoneRoll can optionally be fitted with high-quality lighting and a large display of the baking temperature and the remaining baking time.

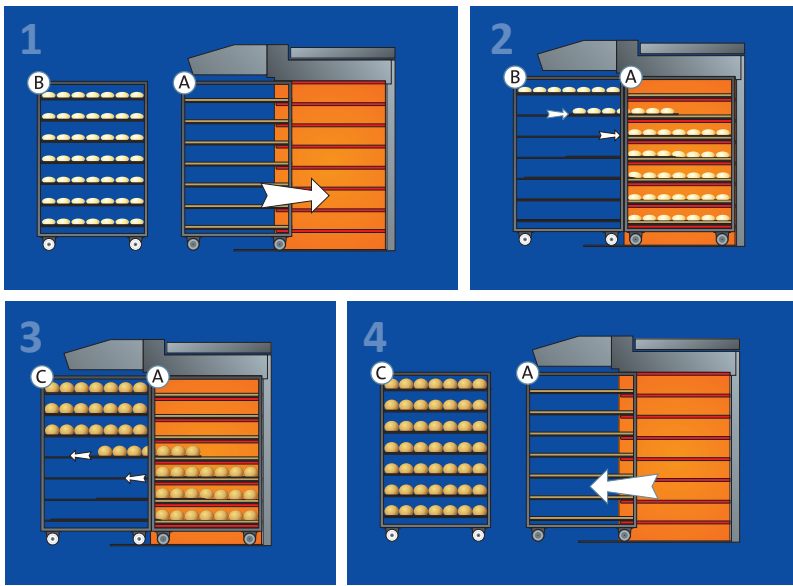
The StoneRoll was uncompromisingly tested to guarantee that, for the whole product range, from the bread roll assortment, fine bakeries, bread, sensitive rye breads, to heavy tin loaves, a perfect baking result is achieved.



## TECHNICAL DATA

HEIN STONEROLL	SR 86-2		SR 86-3		SR 106-2		SR 106-3	
Dimensions width x length (mm)	2 x 800 x 600		3 x 800 x 600		2 x 1.000 x 600		3 x 1.000 x 600	
Levels (number)	7	8	7	8	7	8	7	8
Baking trays (maximum size mm)	800 x 600		800 x 600		1.000 x 600		1.000 x 600	
Baking tray (number)	14	16	21	24	14	16	21	24
Useful baking area (m <sup>2</sup> )	6,7	7,7	10	11,5	8,4	9,6	12,6	14,4
Spacing (mm)	250	218,75	250	218,75	250	218,75	250	218,75
Useful height (approx. per level mm) <i>(depends on rack levels)</i>	210	178,75	210	178,75	210	178,75	210	178,75
Width of oven + controls (mm)	1.400 + 300		1.400 + 300		1.600 + 300		1.600 + 300	
Oven depth (mm)	2.870		3.530		2.870		3.530	
Oven height (mm)	2.500		2.500		2.500		2.500	

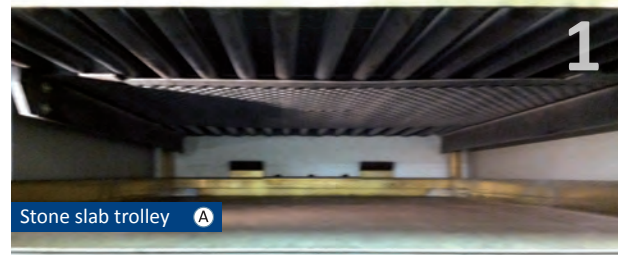
## BAKING ON STONE LIKE A DECK OVEN? NO PROBLEM...



- 1** The empty double or triple depth stone slab trolley\* (A) is preheated in the StoneRoll (about 30 minutes)
- 2** The dough pats are set down on the stone slabs with the trolley (B) equipped with pull-off devices.
- 3** The trolley equipped with crawler (C) enables all 7 or 8 levels\* to be fully baked at the same time.
- 4** If the next bake is to be with racks and shelves, the stone slab trolley is taken out (A) of the oven. Production can continue without transition time.

\*depending on oven model

Annular tubes (heating from above and below)



Stone slab trolley (A)

Annular tubes (heating from above and below)



Trolley equipped with pull-off devices (B)



Trolley equipped with crawler (C)

## THE MATERIAL

It goes without saying that the front, door and extractor hood, as well as all assemblies where it is useful and required from thermal and hygiene points of view are made from NIRO material. All electrical and electronic components are supplied exclusively by reputable manufacturers and are subject to continuous quality control.

A refined ventilation system and ingenious insulation systems protect the electronics and electrical parts from the influence of heat, dust and humidity.



## THE HEAT INSULATION

The minimal overall dimensions of the oven with the largest possible oven cavity that customers demand leave little room for heat insulation. HEIN, in close collaboration with the best manufacturers of the latest, high-quality thermal insulation, has therefore developed a new, sandwich structured insulation. Not only was a good level of thermal insulation achieved but ecological considerations were also taken into account.

As before, for the newly developed insulation systems, only materials that are harmless to health were used. This is advantageous if the oven is to be moved if, for example, the bakery is enlarged, for removal or if it is sold on as a used oven.

When it comes down to it, an outstanding heat insulation not only keeps the bakery temperature down, it also cuts the outgoings for primary energy.

## THE TOUCH SCREEN CONTROL



On request from the customer and for an additional price, the StoneRoll can also be operated with touch screen control. This controller, built into hundreds of ovens since 2005, has shown itself to be robust and reliable. It is not for nothing that this novel and pioneering HEIN development was awarded the DBZ-TROPHY INNOVATION PRIZE at the SÜDBACK Exhibition 2005.

In addition to overnight start time, temperature curve, baking time, vapour delivery and vapour extraction, the HEIN Touchmatic can record all relevant oven data (Logbook). In addition, according to the defined program steps, it switches on the circulation blower, which complements the mild and gentle radiant heat of the annular tubes with increased air circulation in the oven. This gives greater flexibility in production.

A number of ovens can exchange data in a network or be individually controlled and monitored (e.g. via PC or an oven configured as "Master"). Established baking processes can also be conveniently transferred from one oven to another without network connection by means of a USB stick.

The regular service intervals are automatically displayed.



## YOUR ADVANTAGES IN SUMMARY:

- + Outstanding baking quality for your whole product range
- + Universal in application
- + Bake batch after batch with the same baking quality
- + No burning, even if partly shut down or after long down time
- + Super-vapour, as much as you like, always properly dense and wet
- + Top finish of high-quality goods and materials

- + Steam-proof oven door with the proven, reliable lift/lower mechanism
- + Low exhaust temperature with consequent economical use of primary energy
- + Low heat losses with the latest insulation systems
- + Customer service 24 hours a day, 365 days a year and spare parts at extremely reasonable prices
- + With uncomplicated technology, fewer wearing parts

## Overview of our ovens, cooling and fermentation chambers and automated production technology

- HEIN UNIVERSAL :** Annular tube deck ovens,  
with an all-masonry thermal stone hearth and 22 mm thick oven plates
- HEIN LUXROTOR  
& ECOSTONE® :** Rotary rack ovens, for 1, 2 or 4 rotary baking racks  
(ECOSTONE® - with built-in heat recovery and heat release inwards via insulated stone walls)
- HEIN STONEROLL :** Annular tube rack oven with massive “single block baking chamber” cast with thermal stone
- HEIN EUROLUX :** Cyclothermic deck ovens
- HEIN ELECTRO :** Electric deck ovens
- HEIN BAKELUX  
& CONDILUX :** The visible baking system: Convection and/or deck ovens for shops
- HEIN TOPLUX :** Cooling technology from A to Z (cooling and fermentation chambers)
- HEIN SPIDER :** Automatic loading and unloading system
- HEIN HUBILUX :** Semi-automatic loading and unloading system



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