

The Stein GCO II - 1000 Oven represents the latest in spiral oven technology. It was re-designed from the ground up, keeping in mind today's products but also providing the tools that will accommodate tomorrow's. Provided within the design of the oven are all the mechanisms required to empower you to extend your processing capabilities with remarkable simplicity. The end result is a new industry benchmark for performance, hygiene and overall operating economy. We have a dedicated team of applications specialists with over 100 years of cumulative cooking experience to provide assistance in the development of new cooking methods.



Cook it with the most efficient oven.

## The right process at the right time.

With the new Stein GYRoCOMPACT® II-1000 Oven we have enhanced the functionality, simplified the operation and increased the effective throughput, thereby boosting the benefits for you:

- Uniform cooking for consistent product quality and higher yields
- Less maintenance, increased up time
- Integrated MultiPhase™ cooking—Right Process At The Right Time—for versatility and performance

### Yield

- Better oven steam containment so as to maintain higher moisture values at higher fan speeds, thereby improving product yield.
- Right Process (heat transfer mechanism) At The Right Time ensures shortest cook time, thereby improving product yields.



### Performance

- True MultiPhase™ cooking with optional impingement module at oven discharge for enhanced and uniform color development at the top and bottom of the product.
- High temperature impingement section is positioned at the discharge end of the oven to facilitate accelerated product finishing and browning without compromising yield.
- Choice of up-flow, down-flow or Dynamic Airflow Control (DAC™) air in the belt stack to suit a variety of product and process requirements. It is automated and may be controlled through the touch screen.
- Smaller cross-belt temperature variation for uniform cook and color development.
- Increase production with optional impingement module for a given number of tiers.



### Reliability

- 30% reduction in maintenance expenses over previous models.
- Improved drive mechanism with redesigned chain and lubrication mechanism to reduce wear on glide strips and provide a three year interval between drive rebuilds.
- Longer drive chain life due to, "Bigfoot" belt design that ensures better balance of belt stack on drive chain.
- Simpler and robust steam control mechanism.
- Redesigned heat exchanger that is manufactured of a higher grade of corrosion resistant stainless steel to withstand the harshest processing conditions.



### Hygiene and Food Safety

- Use of hollow structural members in the product zone is minimized.
- All corners of the oven cabinet interior are rounded to eliminate traps for bacterial growth.
- Oven roof is sloped to prevent standing water and promote ease of cleaning.
- Overlapping surfaces are spaced apart using stand-offs for improved cleanability.



### Versatility

- Pre-plan your future capacity needs, expand your production output and variety without expanding your plant.
- Low or high discharge available to suit your existing or new plant layout.
- 15% Increase in belt speed extends the range of cook times for a given oven tier height.
- Available in a range of tier heights from 8 through 25 to meet any capacity requirement.



## Stein GYRoCOMPACT® II-1000 Oven

With Self Stacking Belt Technology



### Consistent and reliable, every time.

We are experts in providing cooking solutions with nearly 30 years experience in designing, engineering and building cooking equipment. We constantly challenge our abilities to provide our customers with ovens that deliver maximum up time, suit the most stringent hygiene requirements and are exceptionally easy to operate.

We're with you right down the line.™

[www.jbtfoodtech.com](http://www.jbtfoodtech.com)



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# Stein GYRoCOMPACT® II-1000 Oven



## More Reliability, Less Maintenance

Three year interval between drive rebuilds –up to a 30% reduction in maintenance expenses over previous models.

Rail glide strips have a longer life as a result of:

- "Big Foot" belt design for better balance of belt stack on drive chain
- Improved lubrication delivery system – strategic location of lube ports delivers lubrication efficiently where it is most required
- Redesigned drive chain resulting in lower bearing pressure on sliding surfaces

## Sanitation & Cleaning

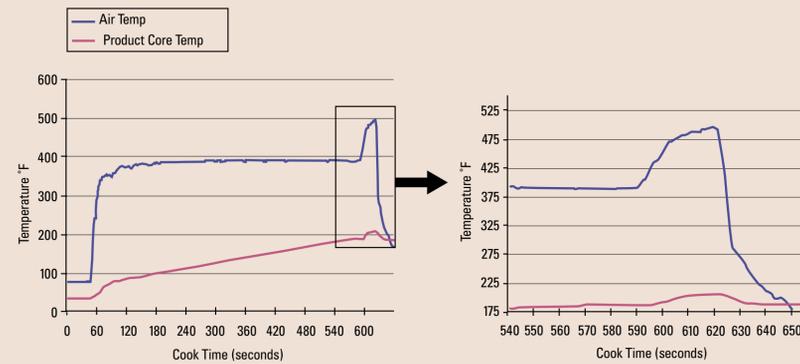
Four zone (five with impingement section) clean-in-place (CIP) system specifically designed for fast, thorough and economical cleaning of the product zone and/or the entire oven as required. Compared to other cleaning systems the advantages of this system are:

- Consistent cleaning
- Minimal need for removing parts
- Lower manpower requirements
- Lower water and energy consumption
- Lower maintenance requirements

## Accessibility For Easy Inspection

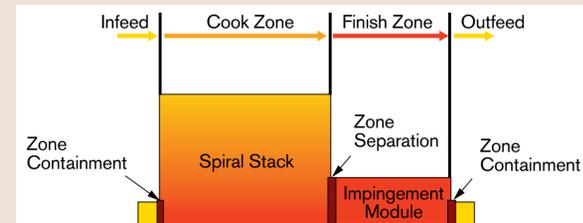
Access around the belt stack area has been improved due to greater clearance (30" [750mm]) between the stack and wall. The main oven cabinet has three doors for easy and convenient access into the critical areas of the oven. The heat exchanger may be inspected through the air handling doors.

All critical components such as CIP and steam valves are located within easy reach of the operator to facilitate ease of inspection.



## Cooking With Impingement Module

Positioning a high air velocity impingement module with high temperature capability as an integral extension (discharge end) of the spiral oven stack speeds up the cooking process. The results are reduced overall cook times and improved yields at any desired color specification. Alternatively, this arrangement provides significant latitude to produce product color together with other sensory product attributes.

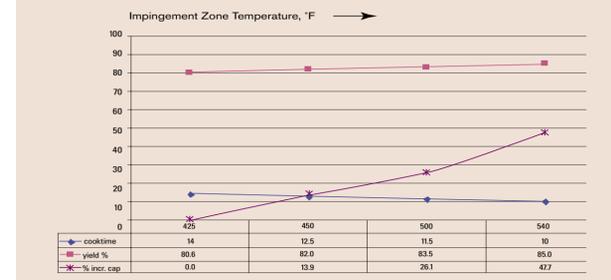
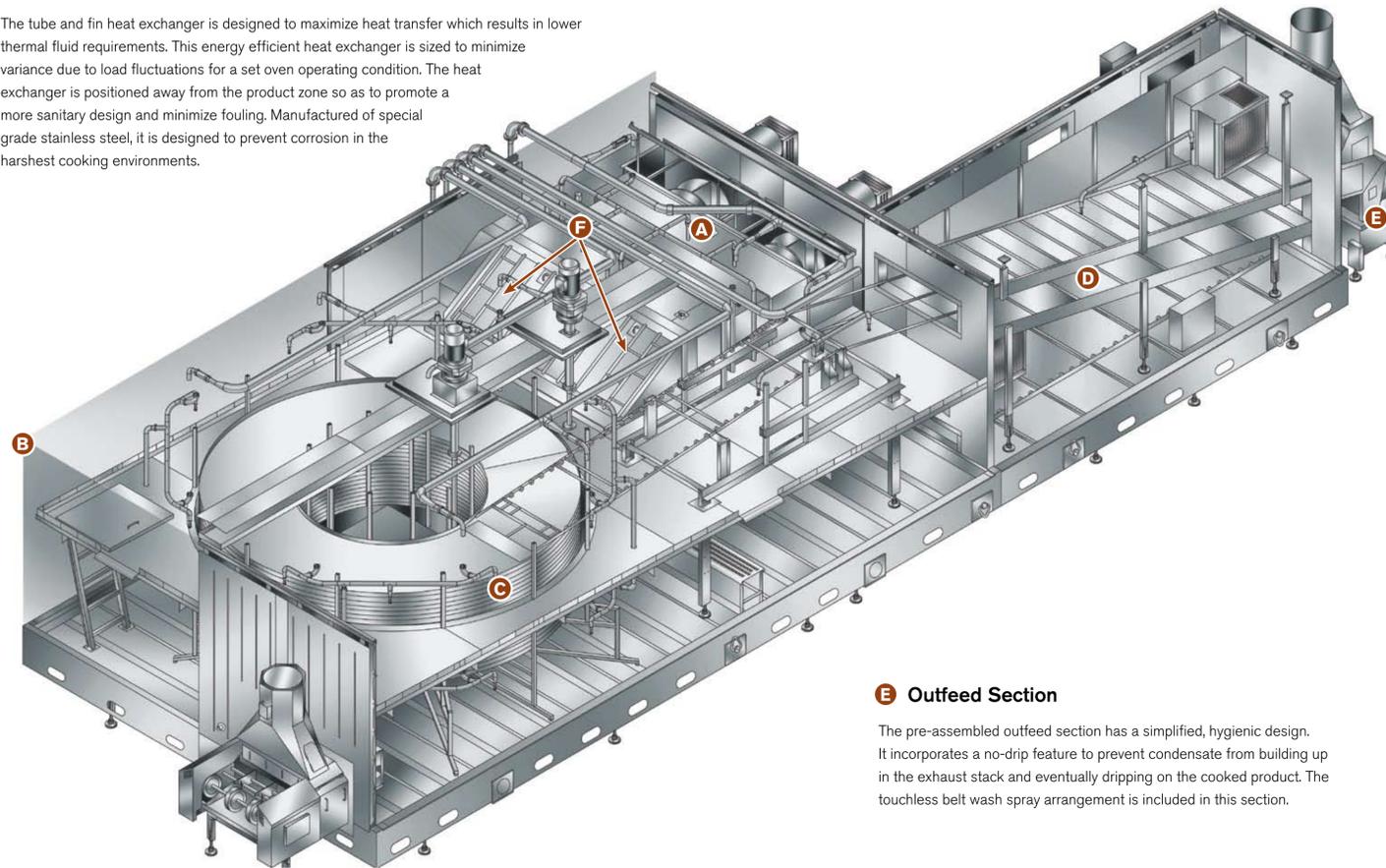


## Right Process (heat transfer mechanism) At The Right Time

Independent control over cook (spiral stack) and finish (impingement) zone environments provides maximum cooking flexibility. Positive zone separation prevents infiltration of atmosphere from one zone to another, providing the right process at the right time.

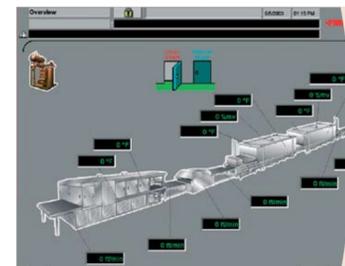
## A Heat Exchanger

The tube and fin heat exchanger is designed to maximize heat transfer which results in lower thermal fluid requirements. This energy efficient heat exchanger is sized to minimize variance due to load fluctuations for a set oven operating condition. The heat exchanger is positioned away from the product zone so as to promote a more sanitary design and minimize fouling. Manufactured of special grade stainless steel, it is designed to prevent corrosion in the harshest cooking environments.



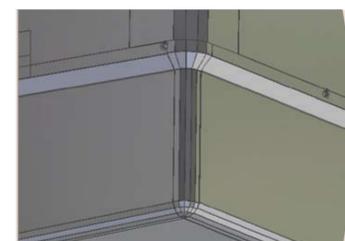
## Effect of Impingement Module on Product Attributes

An increase in impingement temperature results in shorter cook times leading to higher throughputs for a given number of tiers. The increase in product yield is due to the reduction in cook time required to reach the target internal temperature.



## LINK® Enabled

Process automation is vital to success. JBT FoodTech's comprehensive process automation and control suite gives you the tools to simplify production so as to improve day-to-day product and process uniformity to maximize yield.



## B Rounded Corners

The oven floor and ceiling are fully welded to the walls on the inside with rounded corners to minimize the buildup of cooking debris. The roof is sloped to prevent standing water and promote ease of cleaning.

## Greater Cooking Performance

Based on 14 tier oven



Product	Chicken Drum Sticks	Chicken Breasts	Breaded Chicken
Cook Time	21 Minutes	13 Minutes	7 Minutes
Hourly Capacity	8,000 lb (3,600 kg)	9,500 lb (4,300 kg)	8,000 lb (3,600 kg)

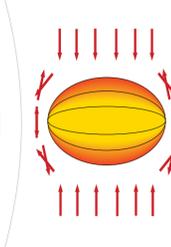
## F Automated Airflow Control System

By using the touch screen, external motor driven actuators position the internal air dampers depending on selected airflow pattern. Actuators are equipped with an external mechanical hand crank to facilitate manual operation, if required. Mechanical linkage ties the various dampers together ensuring synchronized movement thereby eliminating positional errors. Instantaneous changeover between various airflow modes is executed without waiting for the oven to cool down.



## C Frigoscandia Self-Stacking Variable Mesh Belt

The re-designed self stacking conveyor provides less than +/-5°F (3°C) cross-belt temperature variation. The new conveyor has a different belt pitch from the inside to the outside so as to balance the airflow equally across the belt width by maintaining sufficient open area, even when the inside of the belt collapses while turning.



## F Dynamic Airflow Control (DAC™)

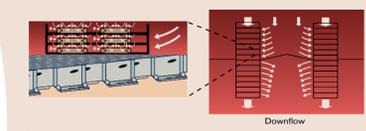
Cooking from both sides of the product ensures more uniform heat transfer, resulting in higher product yields and a lower standard deviation of the product's internal temperature. DAC also ensures more uniform color development at the top and bottom of product.

## D Optional Impingement Module

Impingement nozzles are located on the top and bottom of the product path to ensure improved cooking and overall product color development. Dedicated and independently controllable fans for top and bottom impingement provide greater cooking flexibility and complements cooking that occurs within the spiral stack. The dedicated CIP loop has 13 spray heads for fast and thorough cleaning.

## Enhanced Product Finishing and Color Development

Better and more uniform top and bottom color development even on products marinated with salt and water only



## F Controlled Vertical Airflow

To ensure uniform product cooking and even product color development, the airflow must quickly reach all surfaces of the food product. The self stacking conveyor guides airflow vertically through the belt mesh and at the same time the air moves laterally through the side links.