



Stein MultiPhase™ Custom Cooking Solutions



Stein GYRoCOMPACT® GCO II-1000 Oven

JBT FoodTech's GYRoCOMPACT II-1000 Oven represents the latest in spiral oven technology. Re-designed from the ground up, the GCO-II includes all the mechanisms to extend your processing capabilities with remarkable simplicity. The end result is a new industry benchmark for performance, hygiene and overall operating economy.

The GCO II-1000 is the only spiral oven to incorporate the patented interlocking, self-stacking FRIGoBELT® with side-links that form a consistent and well-contained cooking environment at every level of the spiral belt stack. This is well complemented by a predominantly annular or ring-like, vertical and reversible airflow that is circulated through a variable weave mesh belt designed to offset airflow restriction of the collapsing belt on a circular track.

These features allow the GCO II-1000 to provide the best controlled cooking environment which consistently delivers the highest yields, throughput and even browning on both sides of the product. The GCO II-1000 also comes with an optional end of the recipe impingement section to provide deep browning on the most challenging products.



Stein JSO Jet Stream® Oven

There are three different heat source options. Based on product and process specific objectives, each heat source option empowers you to extend your processing capabilities with remarkable simplicity.

JSO IV Thermal Fluid Oven

Is equipped with high velocity impingement with expanded condensation cooking capability to deliver extremely rapid heat transfer to food items.

- Highest possible product yields and throughput
- Versatility for product development
- Centralized heating

JSO-III Indirect Gas Oven

Harnesses Indirect Gas for high-temperature processing while containing the by-products of combustion from the oven cook zone

- High product yield with half the cooking time of conventional ovens
- Accurate temperature and humidity control
- Vertical air is delivered to top and bottom of product for uniform browning
- Temperature controlled floor prevents renderings from burning, reduces cooking vapors and eases cleanup

JSO-III Direct Gas Oven

Employs direct gas, open flame heating to provide the high temperatures required for a true flame broiled flavor.

- Continuous processing, high intensity convection oven for red meat products requiring flavor and good browning
- Dual burner and dual fan allow infeed and discharge temperatures to modulate
- Offers a 48" wide belt for added capacity
- Cooks with steam, heated air or a combination of both for even higher yields
- Impingement fingers run the entire length of the oven to maintain consistent temperatures from end-to-end



Stein ProGrill®

The ProGRILL 1100 operates on the principle of cooking the product continuously from top and bottom through conduction heat delivered to the food items as they travel sandwiched between two independently moving belts.

The conduction heat is provided to each belt as they ride over a series of heated platens from above and below the product. The series of platens above the product are designed to adjust for height to accommodate cooking food items of varying thickness.

The platens are heated by electric heat or circulating hot thermal fluid that is externally heated. The temperatures of the top and bottom platens can be independently controlled up to 500°F.

Heating by conduction (contact) is a very efficient heat transfer method provided the food items have good surface contact. Therefore, food items with flat product surfaces are a good fit for processing on a ProGRILL.

Empirical evidence has shown that a ProGRILL in conjunction with a JSO-IV oven can be used to deliver the optimum combination of:

- Improved product quality
- High product yields
- High product throughput

Stein CM II Charmarker

To add the appetizing look of open flame grill marks to one or both sides of a food product, the Stein CM-II is the answer. The CM-II Charmarker has increased capacity, an improved hygienic frame design, is easier to clean, and is more reliable than ever. With a product clearance of 4½", you can add grill marks to most products (marking speeds up to 40 fpm; belt speeds up to 65 fpm).

Steamer

Processing with steam only is one of the most efficient methods of cooking food items when color development is not required.

All oven offerings from JBT FoodTech include a steam only operation mode. Additionally, we offer both linear and spiral steamers for those customers with dedicated processing needs.

The standard linear steamers are 40" wide and available in variable lengths either as a stand-alone unit or as the infeed section to JSO series ovens. The spiral steam offerings are also available in a variety of belt widths.

RHO Radiant Heat Oven

The Radiant Heat Oven is another MultiPhase cooking option of use with certain food items. It uses gas fired stainless steel emitter tiles to deliver medium wave infrared energy to food items. Infrared energy has wavelengths that match the absorption and transmits the energy through water molecules. Medium wave infrared with emitters in the range of 1400°F to 1800°F works best for cooking.

This type of heating affects food products at the surface layers and therefore the physical make-up of the surface determines how well it absorbs the radiant energy. Gas fired infrared can be used for browning and generating desirable flavor profile attributes on red meat products.



Stein THERMoFIN® Fryer (TFF)

The TFF THERMoFIN fryer is the best large-volume performer for product quality and lowest operating cost. Its single point remote mounted top-submerger adjustment is designed for quick product changeover.

The heart of the frying system is the unique THERMoFIN heat exchanger that is engineered to perform consistently without burning or scorching the cooking oil, even during sudden interruptions or ongoing changes in thermal demand. This unparalleled performance results from a design basis which incorporates a high ratio of surface area to internal volume together with high flow velocities to deliver highest heat transfer coefficients between the heat transfer fluid and the cooking oil. This means a given thermal output can be achieved at a lower temperature of the heat transfer fluid. Typical field data indicates that temperature differentials as low as 100°F can be routinely maintained between the thermal fluid and the cooking oil.

The THERMoFIN heat exchanger was first introduced in the THERMoFIN fryer in 1993. Nearly 600 such fryers later, this heat exchanger is still the industry standard.

- Extremely reliable and requires zero maintenance
- Delivers the most uniform temperatures across the belt width
- Has electro-polished heat exchanger surfaces that are more than 85% open in the vertical direction with virtually no horizontal surfaces for debris build up
- Is robust with ASME certified fabrication and welding



Stein ProBake™

The ProBAKE 1100 operates on the principle of continuously applying heat to the bottom surface of food items through conduction. This is accomplished by moving food items on a teflon-based conveyor riding over a series of heated platens.

The platens are heated by electric heat or circulating hot thermal fluid that is externally heated. The temperatures of the platens can be controlled up to 500°F. Temperature and dwell time are the only operating parameters that determine the desired product surface quality.

Heating by conduction (contact) is a very efficient heat transfer method provided the food items have good surface contact. Therefore, food items with flat surfaces are a good fit for processing on a ProBAKE.

Empirical evidence has shown that the ProBAKE is ideal for preparing the surfaces of bakery items for pan-less transfer to the next step in a given process.

- ProBAKE can deliver rapid heat transfer to set the bottom surface texture without premature internal baking
- ProBAKE provides the right surface conditioning to eliminate dough based products from sticking to the belt or transfer surface
- Using a ProBAKE as a step for processing bakery items can reduce labor



The right equipment in the right sequence delivers the best quality, yield and throughput.

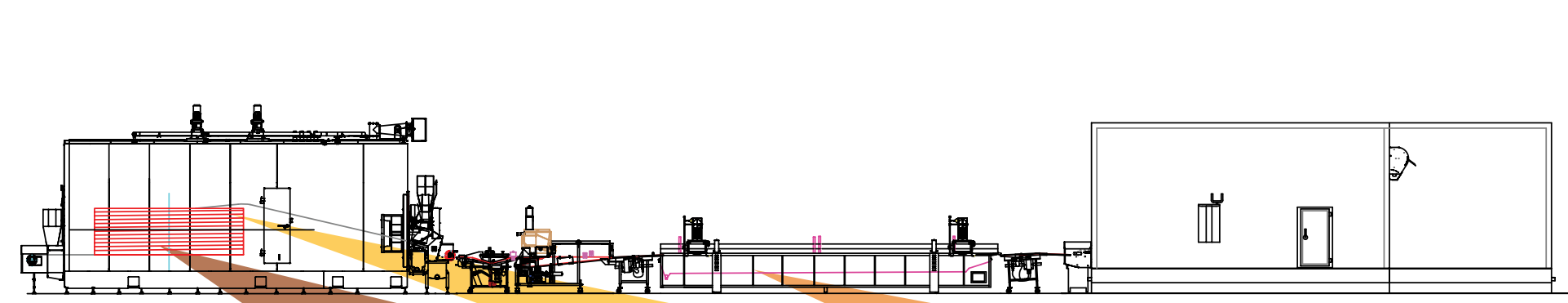
Because your food product is unique, it requires a unique sequence of processing steps to achieve the desired attributes together with the process economics for commercial success. This defines the food processors' quest for product differentiation, which simply means that no one cooking process is the answer until all product criteria are determined and met.

JBT FoodTech offers the industry's leading portfolio of high volume industrial cooking solutions. Our MultiPhase™ cooking approach of delivering the "right heat transfer mechanisms in the right sequence" applies to individual pieces of equipment as well as selected combinations.

With the JBT FoodTech MultiPhase Menu, you can create a one-of-a-kind custom cooking system. Create a unique cooking system for frying, roasting, grilling, broiling/searing, steaming and finishing (baking). Combine a TFF IV fryer with a GCO II oven. Link a ProGRILL® to a JSO IV oven.

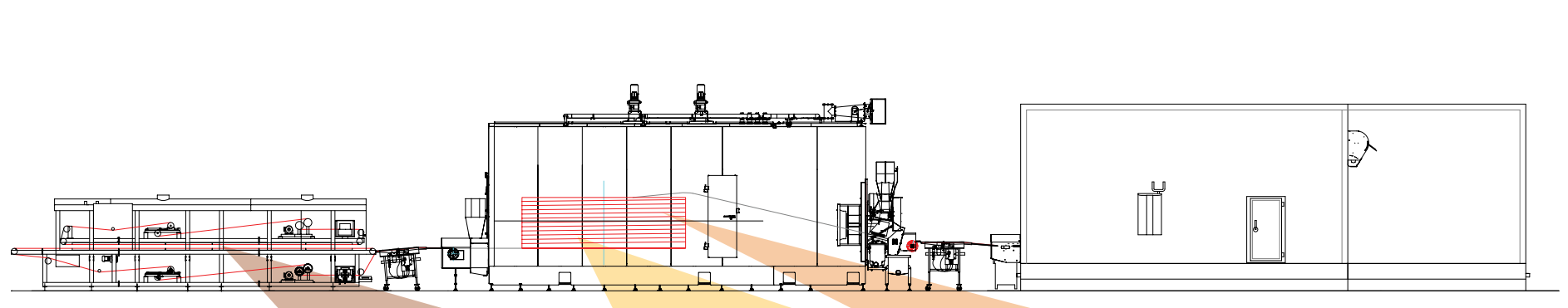
Whatever your end products requires, our MultiPhase Cooking Systems deliver precise, uniform quality, the highest achievable yields, and consistent products attributes with cost effective operating uptimes.

GYRoCOMPACT GCO II-1000 Oven | THERMoFIN Fryer | Frigoscandia M 10 Freezer



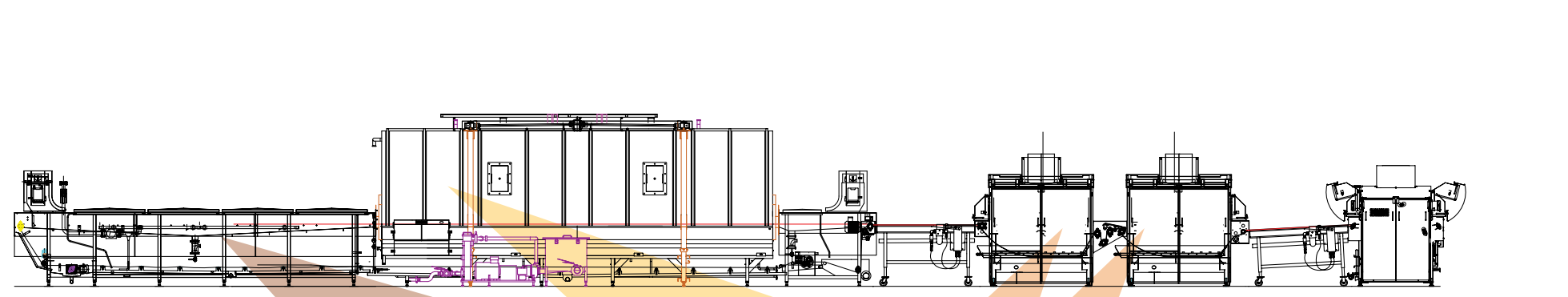
Heat transfer mechanisms	Condensation	Convection	Convection
Product surface condition	Below dew-point*	Above dew-point*	Set coating
Product effect	Rapid heating	Fully cook	Finish cook Crack fat in chicken wing
Typical products	Nuggets (Cook/Coat/Fry process); Uncoated chicken wings		

PRoGRILL | GYRoCOMPACT GCO II-1000 Oven | Frigoscandia M 10 Freezer



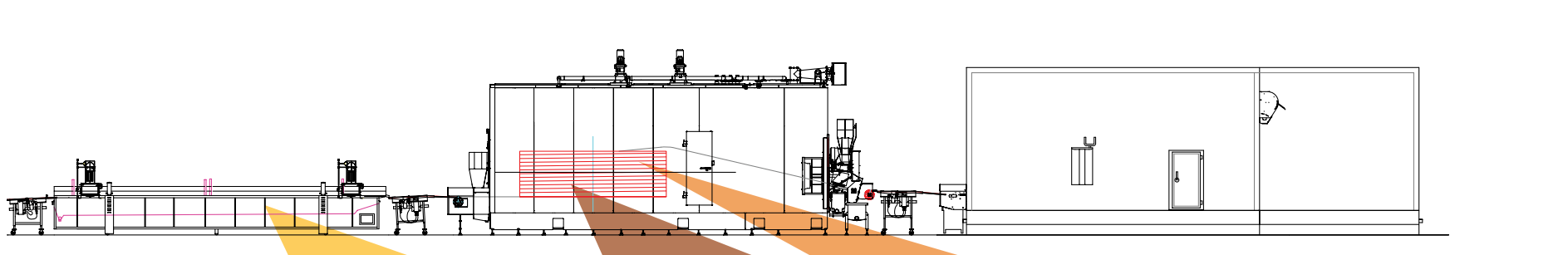
Heat transfer mechanisms	Conduction	Condensation	Convection
Product surface condition	Normalize thickness	Below dew-point*	Above dew-point*
Product effect	Sealing Juices Reduce dwell time	Rapid heating	Final cooking/browning
Typical products	Skinless boneless chicken breast; Sheet meat		

Steamer | JSO Jet Stream Oven | RHO Radiant Heat Oven | CM II Charmarker



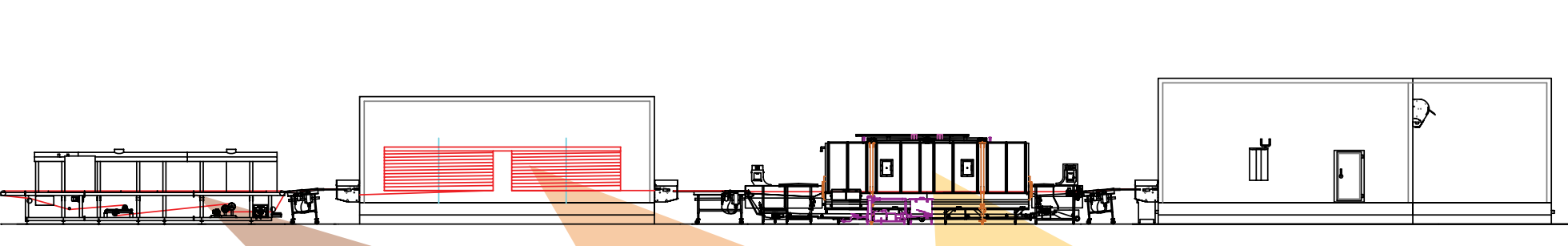
Heat transfer mechanisms	Condensation	Convection	Radiation	Crust conduction	Searing temps.
Product surface condition	Below dew-point*	Above dew-point*	High entering temp.		
Product effect	Rapid heating	Finish cook	Additional browning/texture		
Typical products	Beef and Pork products; Specialty poultry products				

THERMoFIN Fryer | GYRoCOMPACT GCO II-1000 Oven | Frigoscandia M 10 Freezer



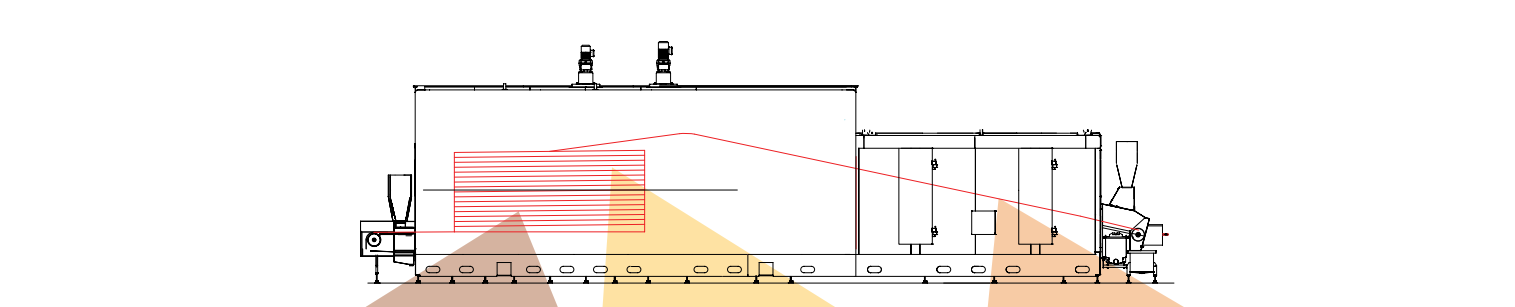
Heat transfer mechanisms	Convection	Condensation	Convection
Product surface condition	Set coating	Below dew-point*	Above dew-point*
Product effect	Develop product color	Rapid heating	Finish cook/browning
Typical products	All coated products; nuggets, patties, and bone-in chicken.		

PRoBAKE | Proofer | JSO Jet Stream Oven | Frigoscandia M 10 Freezer



Heat transfer mechanisms	Conduction	Very low temperature convection	Convection
Product surface condition	Proofed product surfaces of various compositions*	Exposed to 90-100°F 75-95% RH	Give product surface various color and texture
Product effect	Prepares bottom surface of dough based food items for the next step in the process (for pan-less processing)	Allow dough to rise Yeast allowed to leaven the dough	Internal product structure and final bake
Typical products	Dough based products of various composition		

GYRoCOMPACT GCO II-1000 Oven



Heat transfer mechanisms	Condensation	Convection	Impingement
Product surface condition	Below dew-point*	Above dew-point*	Highest entering temperature
Product effect	Rapid heating	Finish cooking	Additional browning
Typical products	Skinless boneless chicken breast; Beef and Pork products		

*The dew-point above refers to the dew-point temperature within the oven atmosphere.

