

GYRoCOMPACT II-1000 Specifications



Stein GYRoCOMPACT® II-1000 Oven

Specifications

Model		GCO-II			
		Oven Cabinet	Impingement Module (Optional)		
Heater Requirement	Heat Exchanger capacity at 590°F (310°C) Thermal Fluid temperature	4,600,000 Btu/Hr 1,348 kW	1,200,000 Btu/Hr 352 kW		
	Thermal Fluid Flow rate	250 GPM 945 l/min	150 GPM 567 l/min		
Number of Tiers	100 mm link Short Box	8 to 12 Tiers	-		
	100 mm link Tall Box	8 to 20 Tiers	-		
	80 mm link Short Box	8 to 15 Tiers	-		
	80 mm link Tall Box	8 to 25 Tiers	-		
Max Usable Product Height	100 mm link	3.65" (85 mm)	3.65" (85 mm)		
	80 mm link	2.56" (65 mm)	2.56" (65 mm)		
Belt Specification	Variable Mesh 80 or 100 mm Link Ht.	M9/M13 w/ Big Foot FrigoBELT	M9/M13 w/ Big Foot FrigoBELT		
Max Usable Belt Width		40" (1,015 mm)	40" (1,015 mm)		
Belt Length		32.8 ft (10 m) per tier	16 ft (4.9 m)		
Maximum Air Velocity		600 fpm (3 m/s)	4,000 fpm (20 m/s)		
Cooking Modes		Upflow Downflow Dynamic Airflow Control (DAC)	Independently Variable Top and Bottom Impingement		
Belt Speed		6.5-75 ft/min (2-23 meters/min.)	6.5-75 ft/min (2-23 meters/min.)		
Maximum Air Temperature		450°F (232°C)	450°F (232°C), Optional 540° F (282°C)		
Humidity Range		20% to 85% MV	-		
Electrical Service • Main Oven Cabinet		380-415V@50 Hz	380V@60 Hz	460V@60 Hz	575V@60 Hz
CIP Pump	40 HP (30 kW)	51.0A	51.0A	45.0A	36.0A
Belt Wash Pump	25 HP (18.75 kW)	40.0A	33.0A	33.0A	26.0A
Circulation Fan (2 required)	40 HP (30 kW)	62.0A	62.0A	52.0A	42.0A
Conveyor Drive inner	2 HP (1.5 kW)	3.7A	3.7A	3.1A	2.5A
Conveyor Drive outer	5 HP (3.7 kW)	9.0A	7.0A	7.0A	5.6A
Electrical Service • Impingement/Discharge/Infeed					
Exhaust Fan 3000CFM (5,100 m3/hr) (2 required)	3 HP (2.25 kW)	4.6A	4.1A	4.1A	5.0A
Take-off Conveyor Motor	.50 HP (.375 kW)	1.5A	1.5A	1.2A	1.0A
Circulation Fan (2 required)	20 HP (15 kW)	30.0	30.0	25.0A	20.0A
		220V Controls	220V Controls	110V Controls	110V Controls
Actuator DAC Discharge	1/4 turn	0.9A	0.9A	2.5A	2.5A
Actuator DAC Inlet	1/4 turn	0.9A	0.9A	2.5A	2.5A
Actuator DAC Center Stack	1/2 turn	2.5A	2.5A	4.3A	4.3A

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Stein GYRoCOMPACT® II-1000 Oven

The Stein GYRoCOMPACT II Oven represents a new generation of spiral ovens. It has been redesigned from the ground up, keeping in mind the products of today while providing the tools that will accommodate those of tomorrow.

Improved Product Yield

- Better oven steam containment at high circulation fan speeds to maintain higher moisture content in spiral stack
- Right Process (heat transfer mechanism) At the Right Time ensures shortest cook time, thereby improving product yields

Enhanced and Uniform Color Development

- True MultiPhase™ cooking with optional impingement module
- Automatically selectable up-flow, down-flow or Dynamic Airflow Control (DAC™) airflow patterns in the belt stack
- Variable mesh belt to ensure uniform cook and color development

Reliability

- Up to 30% reduction in maintenance expenses over previous models
- Improved drive mechanism with redesigned chain and lubrication mechanism
- Longer glide strips and rail life
- Simpler and robust steam control mechanism with new Humitrol® III
- Redesigned heat exchanger withstands the harshest of processing conditions

Hygiene and Food Safety

- Minimal use of hollow structural members in the product zone
- Sloped oven roof prevents standing water
- Self-stacking belt eliminates need for supporting structural members thereby ensuring comprehensive CIP without manual intervention

Versatility

- Pre-plan your future capacity needs, expand your production output and variety without expanding your plant
- 15% increased belt speed extends range of cook times for a given number of tiers
- Low or high discharge available
- Available in a range of tier heights from 8 to 20

GYRoCOMPACT II-1000 Specifications

Model				GCO-II			
Maximum Steam in Oven Box							
All oven modes		3,000 lb/hr (1,360 kg/hr)					
Cold Water Requirement							
Operational	Door Cooling	6 Doors	Min. 1 GPM (3.8 l/min)				
	Belt Cooler (Optional)						Min. 1 GPM (3.8 l/min)
CIP	Cool down bar for heat exchanger						Min. 2 GPM (7.6 l/min) for 30 minutes
	Main Oven Cabinet	2 fills at min. 875 Gallon (3,308 liter) ea.	1,750 Gallon (6,615 liter)				
	Ball Rinse						3-5 GPM (11.4-19 l/min) for 1 hour during CIP
Hot Water Requirement							
Intermittent		Belt wash: 900 psi (62 bar) touchless system				30 GPM (113 l/min)	
Utility Piping Requirements							
Thermal Fluid Conn. Oven		3" ips sch 40 supply 3" ips sch 40 return					
Thermal Fluid Conn. Imping.		3" ips sch 40 supply 3" ips sch 40 return					
Oven Box Steam Line		3" ips drop		80 PSI (5.5 bar)			
Water Line Pressure (Main Oven Cabinet)		1" ips drop		Cold Water		40 PSI (2.8 bar)	
Water Line Pressure (Impingement Module)		1" ips drop		Cold Water		40 PSI (2.8 bar)	
Water Line (Belt Wash)		2" ips drop		Hot Water		40 PSI (2.8 bar)	
Water Line (CIP Fill)		2" ips drop		Cold Water		40 PSI (2.8 bar)	
Water Line (Ball Rinse)		1" ips drop		Hot Water		40 PSI (2.8 bar)	
Air Supply (Oiler)		1/2" supply to 1/4" connections		Filtered Air Req'd		80 PSI (5.5 bar)	
Air Supply (Steam Valve)		1/2" supply to 1/4" connections		Filtered Air Req'd		80 PSI (5.5 bar)	
Air Supply (Thermal Valves)		1/2" supply to 1/4" connections		Filtered Air Req'd		80 PSI (5.5 bar)	
Exhaust Vent Requirements							
Exhaust Duct Size Infeed		18" (457.2 mm)					
Exhaust Duct Size Discharge		18" (457.2 mm)					
Exhaust Fan Inlet Connection (Infeed)		Ø 13.50 (342.9 mm)					
Exhaust Fan Discharge Connection (Infeed)		13.63 (346.2 mm) X 9.38 (238.3 mm) Rectangle					
Exhaust Fan Inlet Connection (Discharge)		Ø 13.50 (342.9 mm)					
Exhaust Fan Discharge Connection (Discharge)		13.63 (346.2 mm) X 9.38 (238.3 mm) Rectangle					

GYRoCOMPACT II-1000 Specifications

Model			GCO-II		
External Dimensions	Short Box	Tall Box			
Enclosure Height (C)	10'-10" (3,305 mm)	13'-7.5" (4,157 mm)			
Enclosure Width (B)	18' (5,486 mm)	18' (5,486 mm)			
Enclosure Height Installed	14' (4,242 mm)	16'-6.5" (5,037 mm)			
Enclosure Width w/ Door Swing	23'-8" (7,216 mm)	23'-8" (7,216 mm)			
Oven Length (A)	57'-3" (17,450 mm)				
Product Infeed Height	3'-7" (1,091 mm)				
Product Discharge Height	3'-7" (1,091 mm)				
Make Up Air Requirement	5,000 CFM (8,500 m³/hr)				
Noise Level	max 90 dbA				

