### TurboChef Technologies Inc.

### i1 Ventless Submittal Information

NGO, Sŏta, Panini, Waterless Steamer, El Bandido

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# <sup>THE</sup>Sŏta<sup>™</sup>

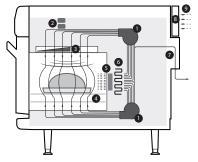


#### **PERFORMANCE**

Utilizing TurboChef's patented technology to rapidly cook food without compromising quality, the Sōta provides superior cooking performance while requiring less space and consuming less energy.

#### **VENTILATION**

- UL (KNLZ) listed for ventless operation.<sup>†</sup>
- EPA 202 test (8 hr):
  - Product: Pepperoni Pizzas
  - Results: 0.64 mg/m<sup>3</sup>
  - Ventless Requirement: <5.00 mg/m<sup>3</sup>
- Internal catalytic filtration to limit smoke, grease, and odor emissions.



- 1. Blower Motors
- 2. Microwave System
- 3. Stirred Impinged Air (Top) and Microwave
- 4. Impinged Air (Bottom)
- 5. Catalytic Converter
- 6. Impingement Heater
- 7. Vent Tube Catalyst
- 8. Air Filter
- 9. Inlet Air for Cooling Electronic Components

Project _	 		
Item No.	 		
Quantity	 	·····	

#### **EXTERIOR CONSTRUCTION**

- Powder coated, corrosion-resistant steel outer wrap and door
- Die-cast aluminum front panels with matte-chrome accents
- Cool-to-touch exterior; all surfaces below 50°C
- Ergonomic matte-chrome door handle
- 4-inch adjustable legs

#### INTERIOR CONSTRUCTION

- 201/304 stainless steel
- Fully welded and insulated cook chamber
- Removable rack and lower jetplate

#### STANDARD FEATURES

- Independently-controlled dual motors for vertically-recirculated air impingement
- Top-launched microwave system
- Stirrer to help ensure even distribution of air and microwave
- Integral recirculating catalytic converter for UL (KNLZ) listed ventless operation
- External air filtration
- Vent catalyst to further limit emissions and odors
- LED timer counts down last 30 seconds of cook time
- Smart menu system capable of storing up to 256 recipes
- Flash firmware updates via smart card
- Single or dual-temperature interface
- Field-configurable for single or multiphase operation (requires service call)
- Self-diagnostics for monitoring oven components and performance
- Smart Voltage Sensor Technology\* (U.S. only)
- Stackable (requires stacking stand)
- Includes plug and cord (6 ft. nominal)
- Warranty 1 year parts and labor

#### **COMES WITH STANDARD ACCESSORIES**

- 1 Bottle Oven Cleaner (103180)
- 1 Bottle Oven Guard (103181)
- 2 Trigger Sprayers (103182)
- 2 Solid Aluminum Pans (i1-9496)
- 1 Aluminum Paddle (i1-9716)









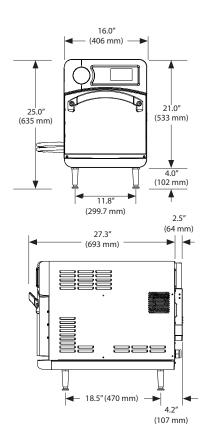
This product conforms to the ventilation recommendations set forth by NFPA96 using EPA202 test method.

- \* Smart Voltage Sensor Technology does not compensate for lack of or over voltage situations. It is the responsibility of the owner to supply voltage to the unit according to the specifications on the back of this sheet.
- † Ventless certification is for all food items except for foods classified as "fatty raw proteins." Such foods include bone-in, skin-on chicken, raw hamburger meat, raw bacon, raw sausage, steaks, etc. If cooking these types of foods, consult local HVAC codes and authorities to ensure compliance with ventilation requirements.

Ultimate ventless allowance is dependent upon AHJ approval, as some jurisdictions may not recognize the UL certification or application. If you have questions regarding ventless certifications or local codes, please email ventless.help@turbochef.com

TurboChef reserves the right to make substitutions of components or change specifications without prior notice.





DIMENSIONS						
Single Units						
Height	25.0"	635 mm				
Width	16.0″	406 mm				
Depth	29.8″	757 mm				
Weight: Standard / Single Mag	170 lb. / 135 lb.	77.1 kg / 61 kg				
Cook Chamber						
Height	7.2"	183 mm				
Width	12.5″	317 mm				
Depth	10.5"	266 mm				
Volume	0.54 cu.ft.	15.4 liters				
Wall Clearance (Oven not intended for built-in installation)						
Тор	5″	102 mm				
Sides	1"	25 mm				
SHIPPING INFORMATION						

U.S.: All ovens shipped within the U.S. are packaged in a double-wall corrugated box banded to a wooden skid.

International: All International ovens shipped via Air or Less than Container Loads are packaged in wooden crates.

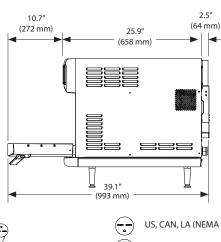
Box size: 37" x 24" x 37" (940 mm x 610 mm x 940 mm) Crate size: 38" x 26" x 38" (965 mm x 660 mm x 965 mm) Item class: 110 NMFC #26710 HS code 8419.81

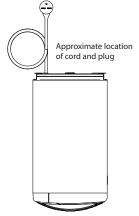
Approximate boxed weight (standard/single mag): 205 lb. (93 kg) / 170 lb. (77.1 kg) Approximate crated weight (standard/single mag): 275 lb. (125 kg) / 240 lb. (109 kg)

Minimum entry clearance required for box: 24.5" (622 mm) Minimum entry clearance required for crate: 26.5" (673 mm)

#### **TurboChef Global Operations**

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US, CAN, LA (NEMA 6-30P)

US, CAN - SINGLE MAG (NEMA 6-20P)

UK, BK (IEC 309, 3-pin)

UK - SINGLE MAG 13 A (BS1363)

EU - SINGLE MAG 16 A (CEE7/7)

JK (NEMA L6-50, PSE, 3-blade)

JD (NEMA L6-50, PSE, 4-blade)

ED, BD, SD (IEC 309, 4-pin) EW, KW (IEC 309, 5-pin)

AU (Clipsal, 5-pin)

ELECTRICAL SPECIFICATIONS					
SINGLE PHASE					
US/Canada	i1-9500-1	208/240 VAC, 60 Hz, 30 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW			
US/Canada – Single Mag 20 A	i1-9500-104	208/240 VAC, 60 Hz, 20 amps Max Input: 4.2/4.8 kW, MW: 1.9 kW, HTR: 4.0/4.2 kW			
Europe (UK)	i1-9500-2-UK	230 VAC, 50 Hz, 27 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW			
Europe (UK) – Single Mag 13 A	i1-9500-105-UK	230 VAC, 50 Hz, 13 amps Max Input: 3 kW, MW: 1.9 kW, HTR: 2.7 kW			
Europe (EU) – Single Mag 16 A	i1-9500-106-UK	230 VAC, 50 Hz, 16 amps Max Input: 3.6 kW, MW: 1.9 kW, HTR: 2.7 kW			
Brazil (BK)	i1-9500-6-BK	220 VAC, 60 Hz, 28 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW			
Latin America (LA)	i1-9500-7-LA	220 VAC, 60 Hz, 28 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW			
Japan (JK)	i1-9500-8-JK	200 VAC, 50 Hz, 30 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW			
Japan (JK)	i1-9500-10-JK	200 VAC, 60 Hz, 30 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW			
MULTIPHASE					
Europe Delta (ED)	i1-9500-3-ED	230 VAC, 50 Hz, 20 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW			
Europe Wye (EW)	i1-9500-4-EW	400 VAC, 50 Hz, 16 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW			
Australia Wye (AU)	i1-9500-5-AU	400 VAC, 50 Hz, 16 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW			
Japan Delta (JD)	i1-9500-9-JD	200 VAC, 50 Hz, 20 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW			
Japan Delta (JD)	i1-9500-11-JD	200 VAC, 60 Hz, 20 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW			
Korea/Middle East Wye (KW)	i1-9500-12-KW	400 VAC, 60 Hz, 16 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW			
Korea/Middle East Delta (SD)	i1-9500-13-SD	230 VAC, 60 Hz, 20 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW			



# THE Sŏta Touch™

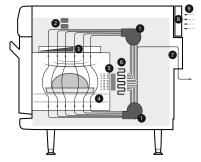


#### **PERFORMANCE**

Utilizing TurboChef's patented technology to rapidly cook food without compromising quality, the Sota Touch provides superior cooking performance while requiring less space and consuming less energy.

#### **VENTILATION**

- UL (KNLZ) listed for ventless operation.†
- EPA 202 test (8 hr):
  - Product: Pepperoni Pizzas
  - Results: 0.64 mg/m<sup>3</sup>
  - Ventless Requirement: <5.00 mg/m<sup>3</sup>
- Internal catalytic filtration to limit smoke, grease, and odor emissions.



- 1. Blower Motors
- 2. Microwave System
- 3. Stirred Impinged Air (Top) and Microwave
- 4. Impinged Air (Bottom)
- 5. Catalytic Converter
- 6. Impingement Heater
- 7. Vent Tube Catalyst
- 8. Air Filter
- 9. Inlet Air for Cooling Electronic Components

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#### **EXTERIOR CONSTRUCTION**

- Powder coated, corrosion-resistant steel outer wrap and door
- Die-cast aluminum front panels with matte-chrome accents
- Cool-to-touch exterior; all surfaces below 50°C
- Ergonomic matte-chrome door handle
- 4-inch adjustable legs
- 7-inch capacitive touch screen with tempered glass cover

#### INTERIOR CONSTRUCTION

- 201/304 stainless steel
- Fully welded and insulated cook chamber
- Removable rack and lower jetplate

#### STANDARD FEATURES

- Simple and intuitive touch controls
- Independently-controlled dual motors for vertically-recirculated air impingement
- Top-launched microwave system
- Stirrer to help ensure even distribution of air and microwave
- Integral recirculating catalytic converter for UL (KNLZ) listed ventless operation
- External air filtration
- Vent catalyst to further limit emissions and odors
- LED timer counts down last 30 seconds of cook time
- Smart menu system capable of storing up to 256 recipes
- Programmable via USB or smart card
- Ethernet and Wi-Fi compatible
- Flash firmware updates via USB
- Single or dual-temperature interface
- Field-configurable for single or multiphase operation (requires service call)
- Self-diagnostics for monitoring oven components and performance
- Smart Voltage Sensor Technology\* (U.S. only)
- Stackable (requires stacking stand)
- Includes plug and cord (6 ft. nominal)
- Warranty 1 year parts and labor

#### **COMES WITH STANDARD ACCESSORIES**

- 1 Bottle Oven Cleaner (103180)
- 1 Bottle Oven Guard (103181)
- 2 Trigger Sprayers (103182)
- 2 Solid Aluminum Pans (i1-9496)
- 1 Aluminum Paddle (i1-9716)









This product conforms to the ventilation recommendations set forth by NFPA96 using EPA202 test method.

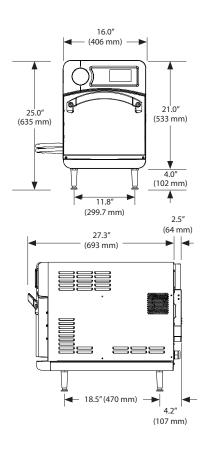
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TurboChef reserves the right to make substitutions of components or change specifications without prior notice.

# TURBOCHEF



	DIMENSIONS				
Single Units					
Height	25.0"	635 mm			
Width	16.0″	406 mm			
Depth	29.8″	757 mm			
Weight: Standard / Single Mag	170 lb. / 135 lb.	77.1 kg / 61 kg			
Cook Chamber					
Height	7.2"	183 mm			
Width	12.5″	317 mm			
Depth	10.5"	266 mm			
Volume	0.54 cu.ft.	15.4 liters			
Wall Clearance (Oven not intended for built-in installation)					
Тор	5″	102 mm			
Sides	1"	25 mm			

#### SHIPPING INFORMATION

U.S.: All ovens shipped within the U.S. are packaged in a double-wall corrugated box banded to a wooden skid.

International: All International ovens shipped via Air or Less than Container Loads are packaged in wooden crates.

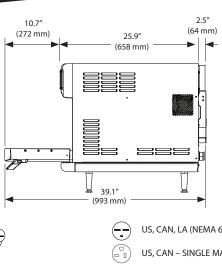
Box size: 37" x 24" x 37" (940 mm x 610 mm x 940 mm) Crate size: 38" x 26" x 38" (965 mm x 660 mm x 965 mm) Item class: 110 NMFC #26710 HS code 8419.81

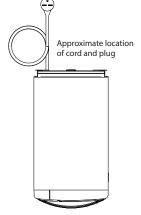
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Minimum entry clearance required for box: 24.5" (622 mm) Minimum entry clearance required for crate: 26.5" (673 mm)

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US, CAN, LA (NEMA 6-30P)

US, CAN - SINGLE MAG (NEMA 6-20P)

UK, BK (IEC 309, 3-pin)

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EU - SINGLE MAG 16 A (CEE7/7)

JK (NEMA L6-50, PSE, 3-blade)

JD (NEMA L6-50, PSE, 4-blade)

ED, BD, SD (IEC 309, 4-pin)

EW, KW (IEC 309, 5-pin)

AU (Clipsal, 5-pin)

	ELECTRICAL SPECIFICATIONS					
SINGLE PHASE						
US/Canada	i1-9500-400	208/240 VAC, 60 Hz, 30 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW				
US/Canada – Single Mag 20 A	i1-9500-435	208/240 VAC, 60 Hz, 20 amps Max Input: 4.2/4.8 kW, MW: 1.9 kW, HTR: 4.0/4.2 kW				
Europe (UK)	i1-9500-401-UK	230 VAC, 50 Hz, 27 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW				
Europe (UK) – Single Mag 13 A	i1-9500-436-UK	230 VAC, 50 Hz, 13 amps Max Input: 3 kW, MW: 1.9 kW, HTR: 2.7 kW				
Europe (EU) – Single Mag 16 A	i1-9500-437-UK	230 VAC, 50 Hz, 16 amps Max Input: 3.6 kW, MW: 1.9 kW, HTR: 2.7 kW				
Brazil (BK)	i1-9500-405-BK	220 VAC, 60 Hz, 28 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW				
Latin America (LA)	i1-9500-406-LA	220 VAC, 60 Hz, 28 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW				
Japan (JK)	i1-9500-407-JK	200 VAC, 50 Hz, 30 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW				
Japan (JK)	i1-9500-409-JK	200 VAC, 60 Hz, 30 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW				
MULTIPHASE						
Europe Delta (ED)	i1-9500-402-ED	230 VAC, 50 Hz, 20 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW				
Europe Wye (EW)	i1-9500-403-EW	400 VAC, 50 Hz, 16 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW				
Australia Wye (AU)	i1-9500-404-AU	400 VAC, 50 Hz, 16 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW				
Japan Delta (JD)	i1-9500-408-JD	200 VAC, 50 Hz, 20 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW				
Japan Delta (JD)	i1-9500-410-JD	200 VAC, 60 Hz, 20 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW				
Korea/Middle East Wye (KW)	i1-9500-411-KW	400 VAC, 60 Hz, 16 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW				
Korea/Middle East Delta (SD)	i1-9500-412-SD	230 VAC, 60 Hz, 20 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW				



# THE Panini



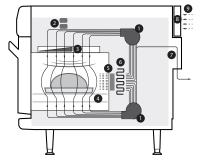


#### **PERFORMANCE**

By combining TurboChef's i-Series technology with the Panini tray, restaurants can rapidly toast, heat, and grill Panini sandwiches.

#### **VENTILATION**

- UL® (KNLZ) listed for ventless operation.†
- EPA 202 test (8 hr):
  - Product: Pepperoni Pizzas
  - Results: 0.64 mg/m<sup>3</sup>
  - Ventless Requirement: <5.00 mg/m<sup>3</sup>
- Internal catalytic filtration to limit smoke, grease, and odor emissions.



- 1. Blower Motors
- 2. Microwave System
- 3. Stirred Impinged Air (Top) and Microwave
- 4. Impinged Air (Bottom)
- 5. Catalytic Converter
- 6. Impingement Heater
- 7. Vent Tube Catalyst
- 8. Air Filter
- 9. Inlet Air for Cooling Electronic Components

Project	 		
Item No	 	 	
Quantity			

#### **EXTERIOR CONSTRUCTION**

- Powder coated (RAL-3020 Traffic Red), corrosion-resistant steel outer wrap and door
- Die-cast aluminum front panels with matte-chrome accents
- Cool-to-touch exterior; all surfaces below 50°C
- Ergonomic matte-chrome door handle
- 4-inch adjustable legs

#### INTERIOR CONSTRUCTION

- 201/304 stainless steel
- Fully welded and insulated cook chamber
- Removable rack and lower jetplate

#### STANDARD FEATURES

- Independently-controlled dual motors for vertically-recirculated air impingement
- Top-launched microwave system
- Stirrer to help ensure even distribution of air and microwave
- Integral recirculating catalytic converter for UL® (KNLZ) listed ventless operation
- External air filtration
- Vent catalyst to further limit emissions and odors
- LED timer counts down last 30 seconds of cook time
- Smart menu system capable of storing up to 256 recipes
- Flash firmware updates via smart card
- Single or dual-temperature interface
- Field-configurable for single or multiphase operation (requires service call)
- Self-diagnostics for monitoring oven components and performance
- Smart Voltage Sensor Technology\* (U.S. only)
- Includes plug and cord (6 ft. nominal)
- Warranty 1 year parts and labor

#### **OPTIONAL FEATURE**

Custom RAL color exterior (standard color: RAL 3020 –Traffic Red)

#### **COMES WITH STANDARD ACCESSORIES**

- 1 Bottle Oven Cleaner (103180)
- 1 Bottle Oven Guard (103181)
- 2 Trigger Sprayers (103182)
- 1 Aluminum Paddle (i1-9716)
- 1 Panini Rack and Tray (i1-3221)









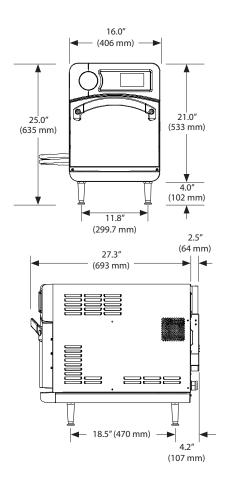
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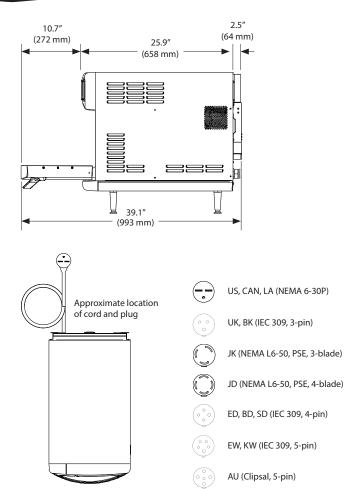
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TurboChef reserves the right to make substitutions of components or change specifications without prior notice







DIMENSIONS				
Single Units				
Height	25.0″	635 mm		
Width	16.0″	406 mm		
Depth	29.8″	757 mm		
Weight	170 lb.	77.1 kg		
Cook Chamber				
Height	7.2"	183 mm		
Width	12.5″	317 mm		
Depth	10.5″	266 mm		
Volume	0.54 cu.ft.	15.4 liters		
Wall Clearance (Oven r	not intended for built-in installation)			
Тор	5″	102 mm		
Sides	1"	25 mm		
SHIPPING INFORMATION				

U.S.: All ovens shipped within the U.S. are packaged in a double-wall corrugated
box banded to a wooden skid.

International: All International ovens shipped via Air or Less than Container Loads are packaged in wooden crates.

Box size:  $37" \times 24" \times 37"$  (940 mm x 610 mm x 940 mm) Crate size:  $38" \times 26" \times 38"$  (965 mm x 660 mm x 965 mm) Item class: 110 NMFC #26710 HS code 8419.81

Approximate boxed weight: 205 lb. (93 kg) Approximate crated weight: 275 lb. (125 kg)

Minimum entry clearance required for box: 24.5'' (622 mm) Minimum entry clearance required for crate: 26.5'' (673 mm)

	ELECTRICAL SP	ECIFICATIONS
SINGLE PHASE		
US/Canada	I1-9500-111-US	208/240 VAC, 60 Hz, 30 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW
Europe (UK)	l1-9500-112-UK	230 VAC, 50 Hz, 27 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW
Brazil (BK)	I1-9500-116-BK	220 VAC, 60 Hz, 28 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW
Latin America (LA)	I1-9500-117-LA	220 VAC, 60 Hz, 28 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW
Japan (JK)	I1-9500-118-JK	200 VAC, 50 Hz, 30 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW
Japan (JK)	l1-9500-120-JK	200 VAC, 60 Hz, 30 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW
MULTIPHASE		
Europe Delta (ED)	I1-9500-113-ED	230 VAC, 50 Hz, 20 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW
Europe Wye (EW)	I1-9500-114-EW	400 VAC, 50 Hz, 16 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW
Australia Wye (AU)	I1-9500-115-AU	400 VAC, 50 Hz, 16 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW
Japan Delta (JD)	l1-9500-119-JD	200 VAC, 50 Hz, 20 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW
Japan Delta (JD)	I1-9500-121-JD	200 VAC, 60 Hz, 20 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW
Korea/Middle East Wye (KW)	l1-9500-122-KW	400 VAC, 60 Hz, 16 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW
Korea/Middle East Delta (SD)	I1-9500-123-SD	230 VAC, 60 Hz, 20 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW

TurboChef Global Operations

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# ™ Panini

#### WITH TOUCH CONTROLS





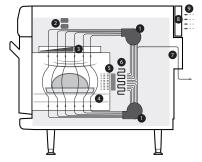
Panini Back

#### **PERFORMANCE**

The Panini with touch controls utilizes the i-Series technology to rapidly toast, heat, and grill Panini sandwiches. Able to withstand back-to-back cooking, the oven heats all the way through in minimal time with perfect grill marks every time.

#### **VENTILATION**

- UL® (KNLZ) listed for ventless operation.<sup>†</sup>
- EPA 202 test (8 hr):
  - Product: Pepperoni Pizzas
  - Results: 0.64 mg/m³
  - Ventless Requirement: <5.00 mg/m<sup>3</sup>
- Internal catalytic filtration to limit smoke, grease, and odor emissions.



- 1. Blower Motors
- 2. Microwave System
- 3. Stirred Impinged Air (Top) and Microwave
- 4. Impinged Air (Bottom)
- 5. Catalytic Converter
- 6. Impingement Heater
- 7. Vent Tube Catalyst
- 8. Air Filter
- 9. Inlet Air for Cooling Electronic Components

Project	 	 	
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#### **EXTERIOR CONSTRUCTION**

- Powder coated (RAL-3020 Traffic Red), corrosion-resistant steel outer wrap and door
- Die-cast aluminum front panels with matte-chrome accents
- Cool-to-touch exterior; all surfaces below 50°C
- Ergonomic matte-chrome door handle
- 4-inch adjustable legs
- 7-inch capacitive touch screen with tempered glass cover

#### INTERIOR CONSTRUCTION

- 201/304 stainless steel
- Fully welded and insulated cook chamber
- Removable rack and lower jetplate

#### **STANDARD FEATURES**

- Simple and intuitive touch controls
- Independently-controlled dual motors for vertically-recirculated air impingement
- Top-launched microwave system
- Stirrer to help ensure even distribution of air and microwave
- Integral recirculating catalytic converter for UL® (KNLZ) listed ventless operation
- External air filtration
- Vent catalyst to further limit emissions and odors
- LED timer counts down last 30 seconds of cook time
- Smart menu system capable of storing up to 256 recipes
- Flash firmware updates via USB
- Single or dual-temperature interface
- Field-configurable for single or multiphase operation (requires service call)
- Self-diagnostics for monitoring oven components and performance
- Smart Voltage Sensor Technology\* (U.S. only)
- Includes plug and cord (6 ft. nominal)
- Warranty 1 year parts and labor

#### **OPTIONAL FEATURE**

Custom RAL color exterior (standard color: RAL 3020 –Traffic Red)

#### **COMES WITH STANDARD ACCESSORIES**

- 1 Bottle Oven Cleaner (103180)
- 1 Bottle Oven Guard (103181)
- 2 Trigger Sprayers (103182)
- 1 Aluminum Paddle (i1-9716)
- 1 Panini Rack and Tray (i1-3221)









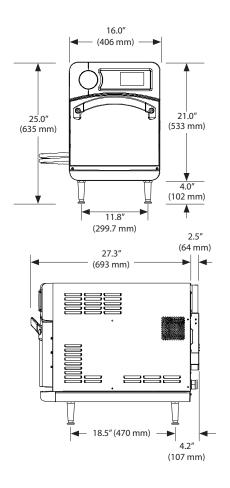
This product conforms to the ventilation recommendations set forth by NFPA96 using EPA202 test method.

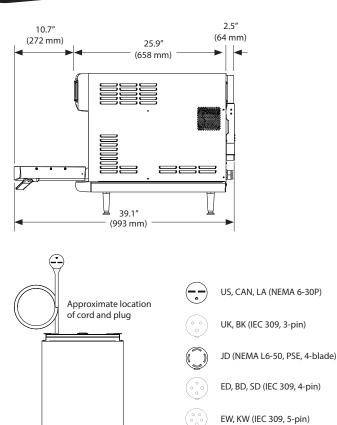
- \* Smart Voltage Sensor Technology does not compensate for lack of or over voltage situations. It is the responsibility of the owner to supply voltage to the unit according to the specifications on the back of this sheet.
- † Ventless certification is for all food items except for foods classified as "fatty raw proteins." Such foods include bone-in, skin-on chicken, raw hamburger meat, raw bacon, raw sausage, steaks, etc. If cooking these types of foods, consult local HVAC codes and authorities to ensure compliance with ventilation requirements.

Ultimate ventless allowance is dependent upon AHJ approval, as some jurisdictions may not recognize the UL certification or application. If you have questions regarding ventless certifications or local codes, please email ventless.help@turbochef.com

TurboChef reserves the right to make substitutions of components or change specifications without prior notice







	DIMENSIONS			
Single Units				
Height	25.0″	635 mm		
Width	16.0″	406 mm		
Depth	29.8″	757 mm		
Weight	170 lb.	77.1 kg		
Cook Chamber				
Height	7.2"	183 mm		
Width	12.5″	317 mm		
Depth	10.5″	266 mm		
Volume	0.54 cu.ft.	15.4 liters		
Wall Clearance (Oven not intended for built-in installation)				
Тор	5″	102 mm		
Sides	1"	25 mm		
SHIPPING INFORMATION				

### U.S.: All ovens shipped within the U.S. are packaged in a double-wall corrugated box banded to a wooden skid.

International: All International ovens shipped via Air or Less than Container Loads are packaged in wooden crates.

Box size:  $37" \times 24" \times 37"$  (940 mm x 610 mm x 940 mm) Crate size:  $38" \times 26" \times 38"$  (965 mm x 660 mm x 965 mm) Item class: 110 NMFC #26710 HS code 8419.81

Approximate boxed weight: 205 lb. (93 kg) Approximate crated weight: 275 lb. (125 kg)

Minimum entry clearance required for box: 24.5'' (622 mm) Minimum entry clearance required for crate: 26.5'' (673 mm)

	ELECTRICAL SP	ECIFICATIONS
SINGLE PHASE		
US/Canada	I1-9500-420-US	208/240 VAC, 60 Hz, 30 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 3.0 kW
Europe (UK)	I1-9500-421-UK	230 VAC, 50 Hz, 27 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 3.0 kW
Brazil (BK)	I1-9500-425-BK	220 VAC, 60 Hz, 28 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 3.0 kW
Latin America (LA)	I1-9500-426-LA	220 VAC, 60 Hz, 28 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 3.0 kW
MULTIPHASE		
Europe Delta (ED)	I1-9500-422-ED	230 VAC, 50 Hz, 20 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 3.0 kW
Europe Wye (EW)	I1-9500-423-EW	400 VAC, 50 Hz, 16 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 3.0 kW
Australia Wye (AU)	I1-9500-424-AU	400 VAC, 50 Hz, 16 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 3.0 kW
Japan Delta (JD)	I1-9500-428-JD	200 VAC, 50 Hz, 20 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 3.0 kW
Japan Delta (JD)	I1-9500-430-JD	200 VAC, 60 Hz, 20 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 3.0 kW
Korea/Middle East Wye (KW)	I1-9500-431-KW	400 VAC, 60 Hz, 16 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 3.0 kW
Korea/Middle East Delta (SD)	I1-9500-432-SD	230 VAC, 60 Hz, 20 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 3.0 kW

AU (Clipsal, 5-pin)

TurboChef recommends installing a type D circuit breaker for European installations.

#### TurboChef Global Operations



#### THF

### Waterless Steamer (WS)

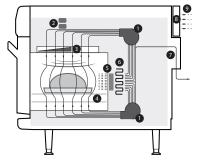


#### **PERFORMANCE**

Utilizing TurboChef's patented technology to rapidly cook food without compromising quality, the WS oven utilizes the i-Series technology packaged in marine-grade stainless, able to withstand high-steam and saline environments. Perfectly steam vegetables, meats, seafood, and more while saving over 300,000 gallons of water per year.

#### **VENTILATION**

- UL® (KNLZ) listed for ventless operation.†
- EPA 202 test (8 hr):
  - Product: Pepperoni Pizzas
  - Results: 0.64 mg/m<sup>3</sup>
  - Ventless Requirement: <5.00 mg/m<sup>3</sup>
- Internal catalytic filtration to limit smoke, grease, and odor emissions.



- 1. Blower Motors
- 2. Microwave System
- 3. Stirred Impinged Air (Top) and Microwave
- 4. Impinged Air (Bottom)
- 5. Catalytic Converter
- 6. Impingement Heater
- 7. Vent Tube Catalyst
- 8. Air Filter
- 9. Inlet Air for Cooling Electronic Components

Project	 	 	
Item No	 	 	
Quantity			

#### **EXTERIOR CONSTRUCTION**

- Corrosion-resistant (316 stainless steel) outer wrap and door
- Chrome top panel
- Cool-to-touch exterior; all surfaces below 50°C
- 4-inch adjustable legs

#### INTERIOR CONSTRUCTION

- Corrosion-resistant (316 stainless steel) cavity and blower wheels
- Fully welded and insulated cook chamber
- Removable rack and lower jetplate

#### STANDARD FEATURES

- Independently-controlled dual motors for vertically-recirculated air impingement
- Top-launched microwave system
- Stirrer to help ensure even distribution of air and microwave
- Integral recirculating catalytic converter for UL® (KNLZ) listed ventless operation
- External air filtration
- Vent catalyst to further limit emissions and odors
- Cartridge style cavity filter to trap grease
- Lower panel collects light moisture and runoff
- LED timer counts down last 30 seconds of cook time
- Smart menu system capable of storing up to 256 recipes
- Flash firmware updates via smart card
- Single or dual-temperature interface
- Field-configurable for single or multiphase operation (requires
- Self-diagnostics for monitoring oven components and performance
- Smart Voltage Sensor Technology\* (U.S. only)
- Includes plug and cord (6 ft. nominal)
- Warranty 1 year parts and labor

#### **COMES WITH STANDARD ACCESSORIES**

- 1 Bottle Oven Cleaner (103180)
- 1 Bottle Oven Guard (103181)
- 2 Trigger Sprayers (103182)
- 2 Solid Aluminum Pans (i1-9496)
- 1 Aluminum Paddle (i1-9716)









This product conforms to the ventilation recommendations set forth by NFPA96 using EPA202 test method.

- \* Smart Voltage Sensor Technology does not compensate for lack of or over voltage situations. It is the responsibility of the owner to supply voltage to the unit according to the specifications on the back of this sheet.
- † Ventless certification is for all food items except for foods classified as "fatty raw proteins." Such foods include bone-in, skin-on chicken, raw hamburger meat, raw bacon, raw sausage, steaks, etc. If cooking these types of foods, consult local HVAC codes and authorities to ensure compliance with ventilation requirements.

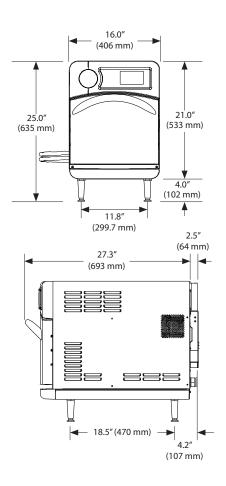
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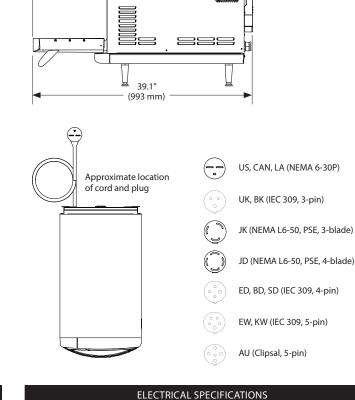
TurboChef reserves the right to make substitutions of components or change specifications without prior notice.

# TURBOCHEF

10.7"

(272 mm)





25.9"

(658 mm)

2.5"

(64 mm)

DIMENSIONS				
Single Units				
Height	25.0″	635 mm		
Width	16.0″	406 mm		
Depth	29.8″	757 mm		
Weight	170 lb.	77.1 kg		
Cook Chamber				
Height	7.2"	183 mm		
Width	12.5″	317 mm		
Depth	10.5″	266 mm		
Volume	0.54 cu.ft.	15.4 liters		
Wall Clearance (Oven not intended for built-in installation)				
Тор	5″	102 mm		
Sides	1"	25 mm		

# SHIPPING INFORMATION U.S.: All ovens shipped within the U.S. are packaged in a double-wall corrugated box banded to a wooden skid.

International: All International ovens shipped via Air or Less than Container Loads are packaged in wooden crates.

Box size: 37" x 24" x 37" (940 mm x 610 mm x 940 mm) Crate size: 38" x 26" x 38" (965 mm x 660 mm x 965 mm) Item class: 110 NMFC #26710 HS code 8419.81

Approximate boxed weight: 205 lb. (93 kg) Approximate crated weight: 275 lb. (125 kg)

Minimum entry clearance required for box: 24.5''(622 mm) Minimum entry clearance required for crate: 26.5''(673 mm)

Chef Global Operations
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SINGLE PHASE			
US/Canada	I1-9500-91-US	208/240 VAC, 60 Hz, 30 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW	
Europe (UK)	I1-9500-92-UK	230 VAC, 50 Hz, 27 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW	
Brazil (BK)	I1-9500-96-BK	220 VAC, 60 Hz, 28 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW	
Latin America (LA)	I1-9500-97-LA	220 VAC, 60 Hz, 28 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW	
Japan (JK)	I1-9500-98-JK	200 VAC, 50 Hz, 30 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW	
Japan (JK)	I1-9500-100-JK	200 VAC, 60 Hz, 30 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW	
MULTIPHASE			
Europe Delta (ED)	I1-9500-93-ED	230 VAC, 50 Hz, 20 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW	
Europe Wye (EW)	I1-9500-94-EW	400 VAC, 50 Hz, 16 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW	
Australia Wye (AU)	I1-9500-95-AU	400 VAC, 50 Hz, 16 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW	
Japan Delta (JD)	I1-9500-99-JD	200 VAC, 50 Hz, 20 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW	
Japan Delta (JD)	I1-9500-101-JD	200 VAC, 60 Hz, 20 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW	
Korea/Middle East Wye (KW)	I1-9500-102-KW	400 VAC, 60 Hz, 16 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW	
Korea/Middle East Delta (SD)	I1-9500-103-SD	230 VAC, 60 Hz, 20 amps Max Input: 6.2 kW / MW: 3.2 kW / HTR: 6.0 kW	



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### El Bandido Panini Press

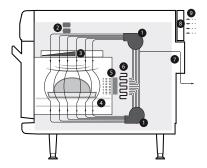


#### **PERFORMANCE**

Using patented technology, the TurboChef El Bandido is the first rapid cook oven that can operate as a high-speed/high-quality panini press with the flexibility to rapidly cook non-pressed foods. The panini press is externally actuated so the operator can choose to press a product.

#### **VENTILATION**

- UL (KNLZ) listed for ventless operation.<sup>†</sup>
- EPA 202 test (8 hr):
  - Product: Pepperoni Pizzas
  - Results: 0.64 mg/m<sup>3</sup>
  - Ventless Requirement: <5.00 mg/m<sup>3</sup>
- Internal catalytic filtration to limit smoke, grease, and odor emissions.



- 1. Blower Motors
- 2. Microwave System
- 3. Stirred Impinged Air (Top) and Microwave
- 4. Impinged Air (Bottom)
- 5. Catalytic Converter
- 6. Impingement Heater
- 7. Vent Tube Catalyst
- 8. Air Filter
- 9. Inlet Air for Cooling Electronic Components

#### **EXTERIOR CONSTRUCTION**

- High-temperature, powder coated, corrosion-resistant steel outer wrap and door (RAL-3020/Traffic Red or RAL-9005/Jet Black)
- Die-cast aluminum front panels with matte-nickel accents
- Cool-to-touch exterior; all surfaces below 50°C
- Ergonomic matte-nickel door handle
- 4-inch adjustable legs

#### INTERIOR CONSTRUCTION

- 201/304 stainless steel
- Fully welded and insulated cook chamber
- Fully removable panini mechanism

#### STANDARD FEATURES

- Panini press mechanism with aluminum anodized upper and lower griddle press plates
- Simple and intuitive touch controls
- Independently-controlled dual motors for vertically-recirculated air impingement
- Top-launched microwave system
- Stirrer to help ensure even distribution of air and microwave
- Integral recirculating catalytic converter for UL® (KNLZ) listed ventless operation
- External cooling air filtration
- Vent catalyst to further limit emissions and odors
- LED timer counts down last 30 seconds of cook time
- Smart menu system capable of storing up to 256 recipes
- Programmable via USB, smart card, or WiFi
- WiFi compatible with Middleby IoT solutions
- Flash firmware updates via USB or WiFi
- Single or dual-temperature interface
- Self-diagnostics for monitoring oven components and performance
- Smart voltage sensor technology\* (U.S. only)
- Stackable (requires stacking stand)
- Includes plug and cord (6 ft. nominal)
- Oven Warranty 1-year parts and labor (NOTE: panini press assembly has separate limited warranty)

#### **COMES WITH STANDARD ACCESSORIES**

- 1 Bottle Oven Cleaner (103180)
- 1 Bottle Oven Guard (103181)
- 2 Trigger Sprayers (103182)
- 1 Aluminum Paddle (i1-9716)
- 1 Heavy Duty Filter (HHD-8422)









This product conforms to the ventilation recommendations set forth by NFPA96 using EPA202 test method.

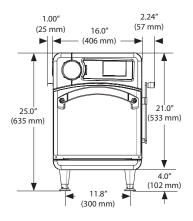
\* Smart voltage sensor technology does not compensate for lack of or over voltage situations. It is the responsibility of

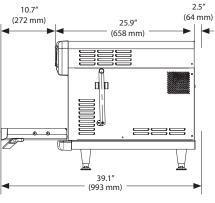
local HVAC codes and authorities to ensure compliance with ventilation requirements.

ventless.help@turbochef.com

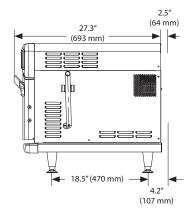
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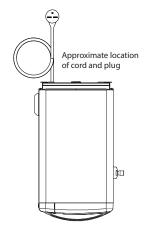
# TURB (CHEF











SINGLE PHASE

Korea/Middle East Delta (SD)

US/Canada

US, CAN, LA (NEMA 6-30P)

UK, BK (IEC 309, 3-pin)

JK (NEMA L6-50, PSE, 3-blade)JD (NEMA L6-50, PSE, 4-blade)

208/240 VAC, 60 Hz, 30 amps

Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW

Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW

ED, BD, SD (IEC 309, 4-pin)

(%) EW, KW (IEC 309, 5-pin)

AU (Clipsal, 5-pin)

**ELECTRICAL SPECIFICATIONS** 

Red: i1-9500-520

Black: i1-9500-537

	DIMENSIONS			
Single Units				
Height	25.0"	635 mm		
Width	16.0″	406 mm		
Overall Width	19.24″	489 mm		
Depth	29.8″	757 mm		
Weight	170 lb.	77.1 kg		
Cook Chamber				
Height	7.2"	183 mm		
Width	12.5″	318 mm		
Depth	10.5"	267 mm		
Volume	0.54 cu.ft.	15.4 liters		
Wall Clearance (Oven not intended for built-in installation)				
Тор	5″	127 mm		
Side without Handle	1"	25 mm		
Side with Handle	6"	152 mm		

#### SHIPPING INFORMATION

U.S.: All ovens shipped within the U.S. are packaged in a double-wall corrugated box banded to a wooden skid.

International: All International ovens shipped via Air or Less than Container Loads are packaged in wooden crates.

Box size: 37" x 24" x 37" (940 mm x 610 mm x 940 mm) Crate size: 38" x 26" x 38" (965 mm x 660 mm x 965 mm) Item class: 110 NMFC #26710 HS code 8419.81

Approximate boxed weight (standard/single mag): 205 lb. (93 kg) / 170 lb. (77.1 kg) Approximate crated weight (standard/single mag): 275 lb. (125 kg) / 240 lb. (109 kg)

Minimum entry clearance required for box: 24.5'' (622 mm) Minimum entry clearance required for crate: 26.5'' (673 mm)

		, , , , , , , , , , , , , , , , , , , ,
Europe (UK)	Red: i1-9500-521-UK Black: i1-9500-538-UK	230 VAC, 50 Hz, 27 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW
Brazil (BK)	Red: i1-9500-525-BK Black: i1-9500-542-BK	220 VAC, 60 Hz, 28 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW
Latin America (LA)	Red: i1-9500-526-LA Black: i1-9500-543-LA	220 VAC, 60 Hz, 28 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW
Japan (JK)	Red: i1-9500-527-JK Black: i1-9500-544-JK	200 VAC, 50 Hz, 30 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW
Japan (JK)	Red: i1-9500-529-JK Black: i1-9500-546-JK	200 VAC, 60 Hz, 30 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW
MULTIPHASE		
Europe Delta (ED)	Red: i1-9500-522-ED Black: i1-9500-539-ED	230 VAC, 50 Hz, 20 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW
Europe Wye (EW)	Red: i1-9500-523-EW Black: i1-9500-540-EW	400 VAC, 50 Hz, 16 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW
Australia Wye (AU)	Red: i1-9500-524-AU Black: i1-9500-541-AU	400 VAC, 50 Hz, 16 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW
Japan Delta (JD)	Red: i1-9500-528-JD Black: i1-9500-545-JD	200 VAC, 50 Hz, 20 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW
Japan Delta (JD)	Red: i1-9500-530-JD Black: i1-9500-547-JD	200 VAC, 60 Hz, 20 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW
Korea/Middle East Wye (KW)	Red: i1-9500-531-KW Black: i1-9500-548-KW	400 VAC, 60 Hz, 16 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW
Korea/Middle East Delta (SD)	Red: i1-9500-532-SD	230 VAC, 60 Hz, 20 amps

Black: i1-9500-549-SD

#### TurboChef Global Operations



# El Bandido with Griddle Plate

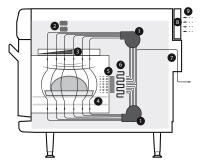


#### **PERFORMANCE**

Using patented technology, the TurboChef El Bandido is the first rapid cook oven that can operate as a high-speed/high-quality panini press with the flexibility to rapidly cook nonpressed foods. The panini press is externally actuated so the operator can choose to press a product.

#### **VENTILATION**

- UL (KNLZ) listed for ventless operation.<sup>†</sup>
- EPA 202 test (8 hr):
  - Product: Pepperoni Pizzas
  - Results: 0.64 mg/m<sup>3</sup>
  - Ventless Requirement: <5.00 mg/m<sup>3</sup>
- Internal catalytic filtration to limit smoke, grease, and odor emissions.



- 1. Blower Motors
- 2. Microwave System
- 3. Stirred Impinged Air (Top) and Microwave
- 4. Impinged Air (Bottom)
- 5. Catalytic Converter
- 6. Impingement Heater
- 7. Vent Tube Catalyst
- 8. Air Filter
- 9. Inlet Air for Cooling Electronic Components

Project	 	 
Item No.		
Quantity	 	 

#### **EXTERIOR CONSTRUCTION**

- High-temperature, powder coated, corrosion-resistant steel outer wrap and door (RAL-3000/Flame Red or RAL-9005/Jet Black)
- Die-cast aluminum front panels with matte-nickel accents
- Cool-to-touch exterior; all surfaces below 50°C
- Ergonomic matte-nickel door handle
- 4-inch adjustable legs

#### INTERIOR CONSTRUCTION

- 201/304 stainless steel
- Fully welded and insulated cook chamber

#### **STANDARD FEATURES**

- Griddle press mechanism with a flat aluminum baseplate with an anodized "easy release" coating and 5 mm NEG-11 top griddle plate (90-day warranty)
- Simple and intuitive touch controls
- Independently-controlled dual motors for vertically-recirculated air impingement
- Top-launched microwave system
- Stirrer to help ensure even distribution of air and microwave
- Integral recirculating catalytic converter for UL (KNLZ) listed ventless operation
- External cooling air filtration
- Vent catalyst to further limit emissions and odors
- LED timer counts down last 30 seconds of cook time
- Smart menu system capable of storing up to 256 recipes
- Programmable via USB or smart card
- Wi-Fi compatible with TurboChef Connect
- Flash firmware updates via USB
- Single or dual-temperature interface
- Self-diagnostics for monitoring oven components and performance
- Smart Voltage Sensor Technology\* (U.S. only)
- Stackable (requires stacking stand)
- Includes plug and cord (6 ft. nominal)
- Oven Warranty 1-year parts and labor

#### COMES WITH STANDARD ACCESSORIES

- 1 Bottle Oven Cleaner (103180)
- 1 Trigger Sprayers (103182)
- 1 Aluminum Paddle (i1-9716)
- 1 Rear Air Filter (i1-9039)
- 1 Spare NEG-11 Top Griddle Plate









This product conforms to the ventilation recommendations set forth by NFPA96 using EPA202 test method.

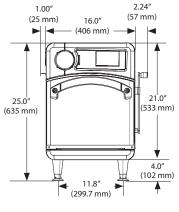
\* Smart Voltage Sensor Technology does not compensate for lack of or over voltage situations. It is the responsibility of

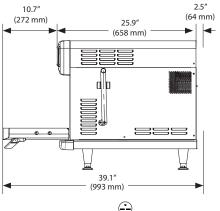
local HVAC codes and authorities to ensure compliance with ventilation requirements.

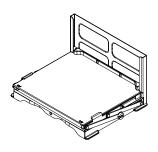
ventless.help@turbochef.com

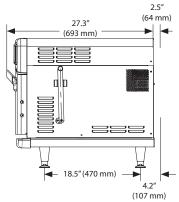
TurboChef reserves the right to make substitutions of components or change specifications without prior notice.

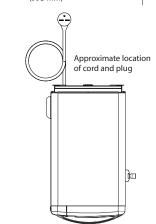
# TURBOCHEF













	DIMENSIONS			
Single Units				
Height	25.0″	635 mm		
Width	16.0″	406 mm		
Depth	29.8″	757 mm		
Weight	170 lb.	77.1 kg		
Cook Chamber				
Height	7.2"	183 mm		
Width	12.5"	317 mm		
Depth	10.5"	266 mm		
Volume	0.54 cu.ft.	15.4 liters		
Wall Clearance (Oven not intended for built-in installation)				
Тор	5″	102 mm		
Side without Handle	1″	25 mm		
Side with Handle	6"	152 mm		

#### SHIPPING INFORMATION

U.S.: All ovens shipped within the U.S. are packaged in a double-wall corrugated box banded to a wooden skid.

International: All International ovens shipped via Air or Less than Container Loads are packaged in wooden crates.

Box size: 37" x 24" x 37" Crate size: 38" x 26" x 38 Item class: 110 NMFC #2

Approximate boxed weig Approximate crated weight (standard/single mag): 275 lb. (125 kg) / 240 lb. (109 kg)

Minimum entry clearance required for box: 24.5" (622 mm) Minimum entry clearance required for crate: 26.5" (673 mm)

(940 mm x 610 mm x 940 mm)
3" (965 mm x 660 mm x 965 mm) 26710 HS code 8419.81
ight (standard/single mag): 205 lb. (93 kg) / 170 lb. (77.1 kg)

#### TurboChef Global Operations

	randooner olobar operations			
1				
.9	.9 .	1	1.	9.
	1 1 . 9			

ELECTRICAL SPECIFICATIONS				
SINGLE PHASE				
US/Canada (RAL 3000, Flame Red) 208/240 VAC, 60 Hz, 30 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW				
US/Canada (RAL 9005, Jet Black)	208/240 VAC, 60 Hz, 30 amps Max Input: 6.2 kW, MW: 3.2 kW, HTR: 6.0 kW			

Page 2.1



LISTED

Commercial Cooking Appliance with Integral Systems for Limiting the Emissions of Grease-Laden Air

This Product Conforms to the Ventilation Recommendations Set Forth by NFPA96 Using EPA202 Test Method

# KNLZ.E151487 - COMMERCIAL COOKING APPLIANCES WITH INTEGRAL SYSTEMS FOR LIMITING THE EMISSION OF GREASE-LADEN AIR

# Commercial Cooking Appliances with Integral Systems for Limiting the Emission of Grease-laden Air

See General Information for Commercial Cooking Appliances with Integral Systems for Limiting the Emission of Grease-laden Air

#### **TURBOCHEF TECHNOLOGIES INC**

E151487

2801 Trade Center Drive Carrollton, TX 75007 USA

Commercial microwave/convection ovens, Model(s) C3/C\*, Encore 2, Encore\*, i3\*, i5\*, NGC\*, NGO\*, Eco

Commercial ovens, Model(s) HHB, HHB2, HHD

Conveyor Ovens, Model(s) HCW2620, HHC1618, HHC2020

\* - Indicated complementary listed models.

Trademark and/or Tradename: "BULLET"

Last Updated on 2018-06-07

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# KNLZ.GuideInfo - COMMERCIAL COOKING APPLIANCES WITH INTEGRAL SYSTEMS FOR LIMITING THE EMISSION OF GREASE-LADEN AIR

# [Heaters and Heating Equipment] (Heaters, Cooking Appliances) Commercial Cooking Appliances with Integral Systems for Limiting the Emission of Grease-laden Air

See General Information for Heaters, Cooking Appliances

#### **USE AND INSTALLATION**

This category covers cooking equipment intended for commercial use, such as pressurized deep fat fryers and other appliances for use in commercial kitchens, restaurants or other business establishments where food is prepared. Each appliance covered under this category is manufactured with an integral system feature to limit the emission of grease-laden air from the cooking process to the room ambient.

These appliances have been investigated for the limit of 5 mg/m<sup>3</sup> for the emission of grease-laden air to the room ambient in accordance with the recommendations of ANSI/NFPA 96, "Ventilation Control and Fire Protection of Commercial Cooking Operations," using the EPA-202 test method prescribed for cooking appliances provided with integral recirculating air systems.

These products are not intended for connection to a ducted exhaust system.

Appliances in this category are not provided with an integral fire extinguishing system. Authorities having jurisdiction should be consulted as to the requirements for this equipment with respect to fire extinguishing systems, such as the need for field installed systems in accordance with ANSI/NFPA 96.

In cases where the nature or construction of equipment is such that special precautions beyond the requirements of ANSI/NFPA 70, "National Electrical Code," must be observed in installations or use, suitable warning or special instructions are marked on the equipment.

Appliances covered under this category are suitable for wiring with either copper or aluminum power-supply conductors unless marked "Use Copper Wire Only For Power Supply Connections."

Commercial cooking appliances of certain types are designed for permanent connections to water supply and sewer lines at the point of installation. Authorities having jurisdiction should be consulted as to the requirements for this equipment with respect to sanitation and connection to water supply and waste disposal lines.

#### **FACTORS NOT INVESTIGATED**

Neither the toxicity of coatings nor the physiological effects on persons consuming food products prepared by use of these appliances has been investigated.

#### PRODUCT IDENTITY

One of the following product identities appears on the product:

Commercial Cooking Appliance with Integral System for Limiting the Emission of Grease-laden Air

Cooking Appliance with Integral System for Limiting the Emission of Grease-laden Air

Other product identities may be used as shown in the individual certifications, followed by the words "with Integral System for Limiting the Emission of Grease-laden Air."

#### **RELATED PRODUCTS**

For products with integral recirculating systems including fire extinguishing systems, see Commercial, with Integral Recirculating Systems (KNKG).

For cooking oil filters that are not an integral part of another appliance, see Commercial Filters for Cooking Oil (KNRF).

#### **ADDITIONAL INFORMATION**

For additional information, see Electrical Equipment for Use in Ordinary Locations (AALZ) and Heating, Cooling, Ventilating and Cooking Equipment (AAHC).

#### REQUIREMENTS

The basic standard used to investigate products in this category is ANSI/UL 197, "Commercial Electric Cooking Appliances."

Appliances covered under this category with an integral cooking oil filter have been additionally investigated to ANSI/UL 1889, "Commercial Filters for Cooking Oil."

#### **UL MARK**

The Certification Mark of UL on the product is the only method provided by UL to identify products manufactured under its Certification and Follow-Up Service. The Certification Mark for these products includes the UL symbol, the words "CERTIFIED" and "SAFETY," the geographic identifier(s), and a file number.

#### **Alternate UL Mark**

The Listing Mark of UL on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number, and the product name "Commercial Cooking Appliance" or "Cooking Appliance," or other appropriate product name as shown in the individual Listings, together with the words "with integral system for limiting the emission of grease-laden air."

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Last Updated on 2013-05-16

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File: E151487

Project: 09NK11970

Date: 9/23/2009

Client:

**TurboChef Technologies** 

Model: Product Tested

NGO

9 in. Pepperoni Pizza

Project No. 09NK11970 File: E151487 Page 5.2

#### **TurboChef Technologies**

Model: NGO

#### Calculations needed for Nozzle Size

 $\Delta H_{@}$  = 40.281 This number is calculated when device is calibrated

% Oxygen = 21.04 %O<sub>2</sub> Oxygen inside stack during operation

% Carbon = 0.01 %CO2 Carbon Dioxide inside stack during operation

Stack
Temperature = 28.6 °C Temperature inside stack during operation

Barametric
Pressure = 744 mmHg Barametric pressure at location of meter

Stack Static

Pressure = -2.032 mm H<sub>2</sub>O Static Pressure inside of duct

Average Square Enter pressure differential at each transvers point in mm root  $\Delta P$  = 1.867  $\Delta P$  mm H<sub>2</sub>O H<sub>2</sub>O, the take square root of  $\Delta P$ .

	Pressure	CFM		Pressure	CFM
1	3.556	496	5	2.794	510
2	3.81	530	6	3.556	515
3	3.81	520	7	3.302	510
4	3.556	520	8	3.556	499
				Average	512.5

# Travers Points 8

Meter
Temperature = 22 °C

Pitot Tube
Coefficient = 0.84

% Moisture = 49.7

Sample Rate = 21.24 Lpm

Ideal Nozzle
Size
When numbers are entered into calculator, ideal nozzle
size will be displayed. Enter number here

0.444803 in

Actual Nozzle
Size Used

If ideal nozzle size is not available, locate nearest number. Enter what nozzle size was used for testing

Project No. 09NK11970 File: E151487 Page 5.3

### TurboChef Technologies

Model: NGO

Start Time: 9:15 Product Tested: 9 in. Pepperoni Pizza Cook Time: 100sec

End Time: 5:30 Barometric Pressure: 744 mmHg Recovery Time: 0sec

Test Date: 09/23/09 Room Ambient: 23C

## **IMPINGER WEIGHT**

Filter Paper Start of Test: 0.6488 g Frit

Filter Paper End of Test: 0.6494 g

Impinger	Start Volume/Weight	Start Weight (lbs)	End Volume/Weight	End Weight (lbs)
1 (ml)	100	1.336/1.556	30	1.404
2 (ml)	100	1.284/1.504	165	1.648
3 (ml)	0	1.344	35	1.422
4 (g)	200	1.328/1.770	222	1.924

## **Timed Meter Readings**

Traverse Point Number	Sampling Time Hr/Sec	Gas Meter Reading (m³)	Orafice Pressure Differential ΔH	Velocity Head ΔP	Pump Vaccum In.hg	Stack Temp °C	Probe Temp °C	Box Temp °C	Impinger Temp °C	Gas Meter Outlet °C
Initial	-	154.402	42	1.4	0.0	27	121	122	8	25
1	:10	154.633	42	1.4	0.0	28	121	122	10	27
1	:20	154.841	42	1.4	0.0	28	121	121	11	29
1	:30	155.047	42	1.4	0.0	28	121	122	14	31
1	:40	155.253	42	1.4	0.0	28	121	121	15	32
1	:50	155.459	41	1.4	0.0	28	121	121	16	33
1	1hr	155.665	41	1.4	0.0	29	121	121	13	34
2	:10	155.872	42	1.5	0.0	32	121	122	11	35
2	:20	156.079	42	1.5	0.0	31	121	121	12	36
2	:30	156.286	41	1.4	0.0	32	121	122	14	36
2	:40	156.491	40	1.2	0.0	31	121	121	16	
2	:50	156.698	42	1.2	0.0	32	121	122	17	36
2	2hr	156.906	42	1.2	0.0	32	121	121	13	37

Traverse Point	Sampling Time	Gas Meter Reading (m³)	Orafice Pressure Differential	Velocity Head ΔP	Pump Vaccum In.hg	Stack Temp °C	Probe Temp °C	Box Temp °C	Impinger Temp °C	Gas Meter Outlet °C
Number	Hr/Sec	` ′	ΔΗ	4.4	0.0	20	404	101	12	27
3	:10 :20	157.114 157.323	42 42	1.4 1.3	0.0	32 32	121 121	121 121	13	37 37
3	:30	157.529	42	1.3	0.0	32	121	121	15	37
3	:40	157.529	42	1.2	0.0	32	121	121	12	37
3	:50	157.737	42	1.3	0.0	32	121	121	12	37
3	3hr	158.153	42	1.4	0.0	32	121	122	13	37
4	:10	158.361	42	1.4	0.0	29	121	122	11	37
4	:20	158.569	42	1.4	0.0	29	121	121	13	37
4	:30	158.777	42	1.4	0.0	30	121	122	14	37
4	:40	158.985	41	1.4	0.0	30	121	122	16	38
4	:50	159.191	42	1.4	0.0	29	121	121	12	37
4	4hr	159.399	42	1.2	0.0	30	121	122	12	37
5	:10	159.606	42	1.2	0.0	31	121	121	11	37
5	:20	159.815	42	1.3	0.0	30	121	122	12	37
5	:30	160.024	42	1.5	0.0	30	121	122	14	38
5	:40	160.232	42	1.5	0.0	30	121	121	15	38
5	:50	160.442	42	1.0	0.0	30	121	122	12	38
5	5hr	160.651	42	0.9	0.0	31	121	122	12	38
6	:10	160.861	42	0.0	0.0	35	121	122	12	38
6	:20	161.318	42	1.4	0.0	32	121	122	15	38
6	:30	161.528	42	1.6	0.0	32	121	122	16	38
6	:40	161.735	42	1.6	0.0	32	121	122	17	38
6	:50	161.945	42	1.6	0.0	32	122	122	17	38
6	6hr	162.153	42	1.6	0.0	32	121	122	13	38
7	:10	162.363	42	1.4	0.0	32	121	122	11	38
7	:20	162.575	42	1.4	0.0	32	121	122	11	38
7	:30	162.782	42	1.4	0.0	32	121	122	13	38
7	:40	162.990	42	1.4	0.0	31	121	122	14	38
7	:50	163.220	42	1.4	0.0	32	121	122	16	38
7	7hr	163.408	42	1.4	0.0	32	122	122	16	38
8	:10	163.617	42	1.6	0.0	28	122	122	13	38
8	:20	163.826	42	1.8	0.0	28	121	122	13	38
8	:30	164.035	42	1.8	0.0	28	121	122	14	38
8	:40	164.244	42	1.8	0.0	28	121	122	14	38
8	:50	164.452	42	1.8	1.0	28	121	122	15	38
8	8hr	164.661	42	1.4	1.0	30	122	122	16	38

Average Gas Meter Outlet Temperature: 36.36735 °C

Average Gas Meter Outlet Temperature: 97.46122 °F

 $\Delta H = 41.875 \text{ mm H}_2\text{O}$  Tm = 557.46 R

 $\Delta H = 1.648622 \text{ in H}_2\text{O}$ 

Project No. 09NK11970 File: E151487 Page 5.5

**TurboChef Technologies**Model: NGO

Start Time: 9:15 End Time: 5:30 Test Date: 09/23/09

Cook Time: 100sec Product Tested: 9 in. Pepperoni Pizza

Recovery Time: <u>0sec</u> Barometric Pressure: <u>744</u>

Post-Test Data

Gas Meter Gas Meter Reading

Reading initial 154.40 m<sup>3</sup> End 164.66 m<sup>3</sup>

Vm 10.26 m<sup>3</sup> 362.29 ft<sup>3</sup>

Y- Constant 0.949 This data is obtained during device calibration. Verify

number with most recent calibration certification on LEM
Tstd constant 528.0 R

Tm 557.5 R Number obtained from Datasheet

Barometric

Water Blank

Pressure 744 mmHg Barometric Pressure on day of Test

29.29134 inHg

Pstd 30.42 inHg

Δ H 1.648622 in H<sub>2</sub>O

Vmstd 314.86 ft3 8.915878 m3

Post-Filter Data

Filter paper 649.40 mg Weight at End of Test

0.1 mg

Filter AR 648.80 mg Weight at Begining of Test

delta H 0.60 mg Change of Weight at End of Test

Post-Acid Used

Acetone Wash Acetone Blank 3.1 mg Bottle 2 Mc 5.1 mg

Acetone Blank 0 mg Bottle 3

Acetone Blank
Impinger Contents

0 mg
Bottle 3
Bottle 4
Mn
5.7 mg
MeCl Wash
MeCl Blank

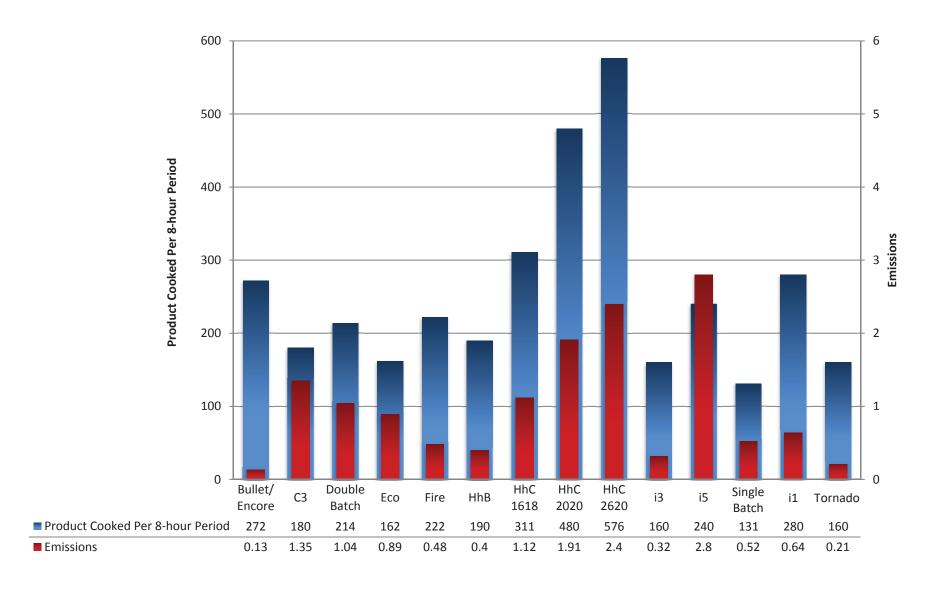
0 mg
Bottle 5
Bottle 6

Total Grease Emisions

Bottle 7

UL® (KNLZ) Emissions by Product

Ventless Requirement: <5.00 mg/m³





October 18, 2004

Mr. Mike Denny Building Services, 224 West Knight St. City of Sioux Falls, South Dakota, 57102 Ph: 605-367-8252

Re: Fire and smoke containment

Dear Mr. Denny:

The TurboChef ovens have been extensively tested and conform to UL 923 and UL KNLZ standards. The UL 923 standard is the electrical/product safety standard and the KNLZ is the low particulate matter emissions standard to which we conform. While both standards address difference aspects of the oven, they both have inherent overlap as it relates to grease/smoke/fire handling.

As it relates specifically to fire safety, UL 923 specifies:

Section 57 Cavity Fire Containment Test:

The performance of an appliance subjected to this test shall be considered acceptable if all of the following conditions are met:

- a) There is no emission of fire, flame, or molten metal outside the appliance nor glowing or ignition of the cheesecloth, tissue paper, or wood surface:
- b) The fuse rated 3 A does not open;
- c) Following the test, the appliance complies with the requirements of Leakage Current, Section 33, and Dielectric Voltage-Withstand Test, Section 39, as applicable to primary circuits; and
- d) Following the test and following 10 c of operation (opening and closing the door), the appliance complies with the requirements in 57.12. The radiation emission shall not xceed 5mW/cm2.

#### Test Method:

Section 57.2 requires that 4 potatoes each weighing between 150g and 200g be placed inside the oven under test and cooked using full microwave power and hot air (if applicable) until the potatoes catch fire. Note: The test must be repeated until it catches fire. During this test, pieces of tissue paper and cheesecloth are placed above, below and around the product to ensure that the fire and/or excessive heat generated is safely contained within the confines of the appliance.

As it relates to grease handling, UL KNLZ specifies:

UL KNLZ Guide Information Excerpt:

"These appliances have been evaluated for the limit of 5 mg/m³ for the emission of grease-laden air to the room ambient in accordance with the recommendations of the National Fire Protection Association Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, NFPA 96, using the EPA-202 test method prescribed for cooking appliances provided with integral recirculating air systems."

#### Test Method:

The UL KNLZ category requires that products must have less than 5.0 mg/m3 of particulate matter emissions during 8 continuous hours of cooking a "worst case" food product as measured by EPA 202. Note: Our products were tested using full-fat pepperoni pizzas.

As it pertains specifically to smoke: Smoke typically consists of visible grease particulate that escapes from a product during operation. Our ovens utilize a recirculating airpath that is catalytic scrubbed, thus the airborne grease is combusted as it crosses our catalyst. Given this, under typical/normal operating conditions, our product does not emit smoke.

If you have any issues or specific questions regarding the above, please contact me directly.

Best regards,

James K. Pool III

James K. Pool III Vice President Engineering, TurboChef Technologies, Inc., Ph: 214.379.6020

Email: james.pool@turbochef.com

### **TurboChef Energy Calculator**

#### **User Inputs**

Total Operation Time per Day (hours)	12	hours
Cook Cycle Time (seconds)	45	seconds
Number of Cooks per Day	100	total
Energy Cost/kWhr (\$)	0.11	\$/kWhr

	i1 (Sota, Panini,
Constants	ws)
Power Warm-up (watts)	3,900
Power Cooking (watts)	2,800
Power Idle (watts)	750
Time Warm-up (seconds)	900

Energy = (Power x time), where power is in watts and time is in seconds

Etotal=Eidle+Ecooking+Ewarmup

Ave Power = Etotal/total time per day

Calculated Times	i1 (Sota, Panini, WS)
Time (cooking, sec)	4,500
Time (idle, sec)	37,800
Time Check	12
Eidle (kJ)	28,350
Ewarm-up (kJ)	3,510
Ecooking (kJ)	12,600
Etotal (kJ)	44,460
Etotal (kWHr)	12.35
Avg Power/Day (kW)	1.03
Tons of Cooling	0.29
Cost/Day (\$)	\$1.36
Cost/Month (\$)	\$40.80
Cost/Year (\$)	\$496.40

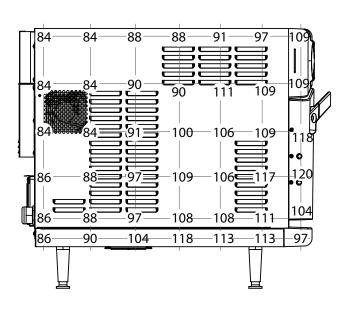
### TURBOCHEF

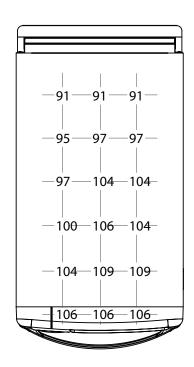
### i1 Oven Surface Temperatures

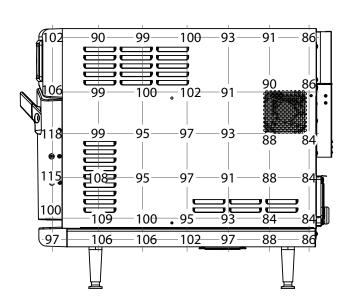
NGO, Sota, Panini, Waterless Steamer, El Bandido

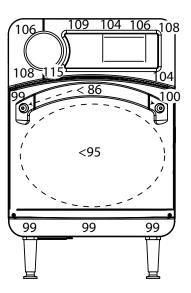
The illustrations in this document represent the surface testing data reported for TurboChef i1 ovens (model NGO) during cooking after two and a half hours of idle at 520°F (271°C), simulating the highest temperature condition.

#### **Fahrenheit Measurements**

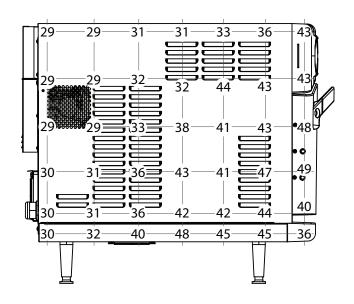


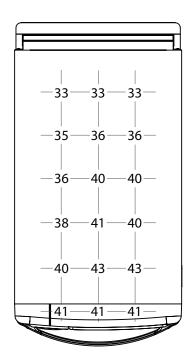


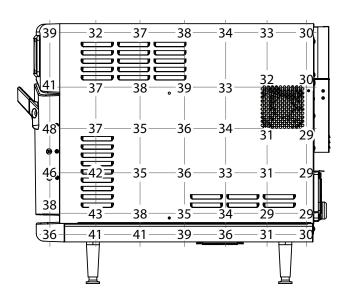


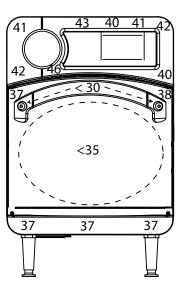


### **Celsius Measurements**









#### TURBOCHEF TECHNOLOGIES, INC.

### Installation Recommendations

TurboChef ventless ovens have internal systems for destroying grease laden vapor prior to the grease escaping the oven; therefore, the ovens are certified as non-grease emitting appliances. When following our recommendations, TurboChef ovens can be installed without the aid of a Type I or Type II hood per International Mechanical Code (2006, 2009, and 2012), NFPA 96, NFPA 101 (Life Safety Code), EPA 202, and Underwriter's Laboratory (UL KNLZ).

The following guide is intended to give relevant information for the ventless installation, operation, and maintenance of TurboChef ovens. It is important that these guidelines are followed and that the oven and surrounding areas be maintained regularly for optimal performance.

#### Certifications

Safety – cULus, TUV (CE) Sanitation – NSF\*, UL EPH\* Ventless – UL (KNLZ)











#### **Electrical Requirements**

TurboChef ovens must be installed on a circuit equal to the ratings listed below, per NEC sec 210.23, permissable loads.

-	-		
Oven	Voltage	Current	Phase
Bullet	208/240 VAC	30 amp	1 Ph
C3	208/240 VAC	50 amp	1 Ph
Double Batch	208/240 VAC 208/240 VAC	50 amp 30 amp	1 Ph 3 Ph
ECO	208/240 VAC	20 amp	1 Ph
ECO ST	208/240 VAC	30 amp	1 Ph
Encore/Encore 2	208/240 VAC	30 amp	1 Ph
Fire	208/240 VAC	30 amp	1 Ph
HhB 2	208/240 VAC	30 amp	1 Ph
HhC 1618	208/240 VAC 208/240 VAC	30 amp 50 amp	3 Ph 1 Ph
HhC 2020	208/240 VAC	50 amp	3 Ph
HhC 2620	208/240 VAC	50 amp	3 Ph
i1 (Panini, Sŏta / Sŏta Single Mag, El Bandido, Waterless Steamer)	208/240 VAC	30 amp	1 Ph
i1 Sŏta Single Mag	208/240 VAC	20 amp	1 Ph
i3	208/240 VAC 208/240 VAC	40 amp 30 amp	1 Ph 3 Ph
i5	208/240 VAC 208/240 VAC	50 amp 30 amp	1 Ph 3 Ph
Single Batch	208/240 VAC	30 amp	1 Ph
Tornado	208/240 VAC	30 amp	1 Ph

<sup>\*</sup> NSF certification applies to the Tornado, C3, and HhB 2 ovens only. UL EPH certification applies to all ovens except the Ca

#### Menu Requirements

TurboChef ovens have been approved by Underwriter's Laboratory for ventless operation (UL KNLZ listing) for all food items EXCEPT for foods classified as "fatty raw proteins." Such foods include bone-in, skin-on chicken, raw hamburger meat, raw bacon, raw sausage, steaks, etc.

The TurboChef certification includes precooked food items such as pizza toppings, sandwich meats, frozen appetizers, and cheeses. Additionally, raw, lean meats such as boneless, skinless chicken breasts and fish fall within the certification.

#### Cleaning Requirements

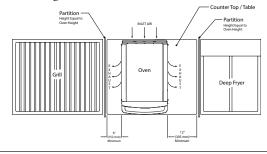
To ensure continued compliance with all health, building, and fire codes, users are required to:

- Use only TurboChef-approved cleaning chemicals.
- ☐ Follow monthly and quarterly cleaning instructions provided in the manual. Post cleaning instructions near the oven.
- Ventless installation requires that the areas around the oven (walls, ceilings, kitchen equipment, etc.) be cleaned as needed but no less than once every other month.

#### Installation Near Open Heat Source

When placing a TurboChef oven near an open heat source (see illustration below), strictly adhere to the following:

- If the oven is being placed near a grill or stove, a divider must exist between the oven and the open heat source, with a minimum of 6" (152 mm) between the oven and the divider.
- If the oven is being placed near a fryer, a divider must exist between the oven and fryer, with a minimum of 12" (305 mm) between the oven and the divider.
- The height of the divider must be greater than or equal to the height of the oven.





#### **Oven Clearances**

Verify the oven location has the following clearances on the top and each side. TurboChef ovens have built-in back bumpers that allow for the necessary spacing from the oven to the back wall.

Oven	Тор	Sides
Bullet	5" (127 mm)	2" (51 mm)
C3	4" (102 mm)	2" (51 mm)
Double Batch	2" (51 mm)	2" (51 mm)
ECO	5" (127 mm)	1" (25 mm)
ECO ST	5" (127 mm)	1" (25 mm)
Encore/Encore 2	5" (127 mm)	2" (51 mm)
Fire	2" (51 mm)	2" (51 mm)
HhB 2	2" (51 mm)	2" (51 mm)
HhC 1618	10" (254 mm)	0" (0 mm)
HhC 2020	10" (254 mm)	0" (0 mm)
HhC 2620	10" (254 mm)	0" (0 mm)
i1 (Panini, Sŏta / Sŏta Single Mag, El Bandido, Waterless Steamer)	5" (127 mm)	1" (25 mm)
i3	19" (483 mm)	2" (51 mm)
i5	19" (483 mm)	2" (51 mm)
Single Batch	2" (51 mm)	2" (51 mm)
Tornado	4" (102 mm)	2" (51 mm)

#### Ventilation

TurboChef ovens must be installed in a well-ventilated space. The space should have an exhaust rate of .70 cfm per square foot of kitchen space and an additional 100 sq. ft. (9.3 m²) of virtual space per ventless cooking appliance (TurboChef or any other).

If the air inlet is for general exhaust, pursuant to requirements for 507.2.2, paragraph 2, locate the air inlet above the center point of each oven.

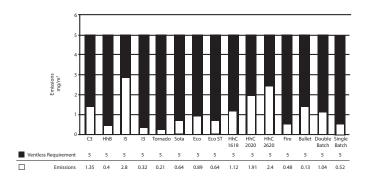
The heat load from TurboChef ovens is mostly sensible. The only latent heat present is due to evaporation during the cooking process. When installing a TurboChef oven, the space must have the following tons of AC per oven installed.

Oven	Tons of AC
Bullet	0.5
C3	0.63
Double Batch	1.15
ECO	0.89
ECO ST	0.28
Encore/Encore 2	0.45
Fire	0.55
HhB 2	0.84
HhC 1618	1.00
HhC 2020	1.47
HhC 2620	1.82
i1 (Panini, Sŏta / Sŏta Single Mag, El Bandido, Waterless Steamer)	0.3
i3	0.9
i5	1.3
Single Batch	0.75
Tornado	0.58

#### How the Ovens are Tested

TurboChef ovens are evaluated according to UL. The evaluation entails placing the test oven in an environmental chamber built to capture all emissions escaping during idle, cooking, and door-open conditions. During the eight-hour test period, a typical worst-case food item is cooked continuously, and 100% of condensable and noncondensable emissions from the product are collected and analyzed according to the EPA 202 Test Method. At the conclusion of the test, the total concentration of particulate matter (emissions) must be less than 5.0 mg/m³ for the oven to be certified for ventless operation. Cooking devices that measure above the 5.0 mg/m³ threshold are considered to produce grease and must be installed under Type I ventilation, according to International Mechanical Code.

TurboChef ovens are well below the 5.0 mg/m³ threshold as shown below.



#### **Contact Information**

For questions regarding a ventless installation, email ventless.help@turbochef.com. For questions or concerns regarding an existing installation, contact Customer Service at 1.800.908.8726, Option 1.