

ECO ST Ventless Submittal Information

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THE Eco ST

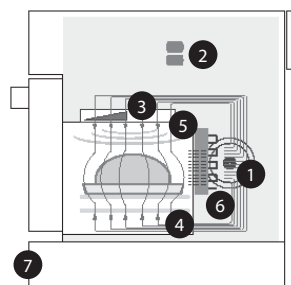


PERFORMANCE

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

VENTILATION

- Ventless certification
- EPA 202 test (8 hr):
 - Product: 237 Pepperoni Pizzas
 - Results: 0.64 mg/m³
 - Ventless Requirement: <5.00 mg/m³
- Internal catalytic filtration to limit smoke, grease, and odor emissions.



1. Blower Motor
2. Top-launched Microwave
3. Stirred Impinged Air (Top) and Microwave
4. Air Impingement (Bottom)
5. Catalytic Converter
6. Heater
7. Air Filter

EXTERIOR CONSTRUCTION

- Corrosion-resistant steel outer wrap and door
- Cool-to-touch exterior; all surfaces below 122°F/50°C
- Ergonomic door handle
- 7-inch capacitive one-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 one-touch controls with icons
- Single motor vertically circulates 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
- Smart menu system capable of storing unlimited recipes
- USB compatible
- Single or dual-temperature interface
- Self-diagnostics for monitoring oven components and performance
- Includes plug and cord (6 ft. nominal)
- Warranty – 1 year parts and labor
- Open Kitchen™ ready

CONNECTIVITY PART NUMBERS

- MDD-1001 - Initial equipment, two-way connectivity bundle
- MDD-1002 - Additional equipment, two-way connectivity bundle
- MDD-1003 - Additional year of subscription (PhD SAAS)



STANDARD ACCESSORIES

- 1 Oven Cleaner and Guard Kit (105701)
- 1 Aluminum Paddle (i1-9716)

CERTIFICATIONS



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

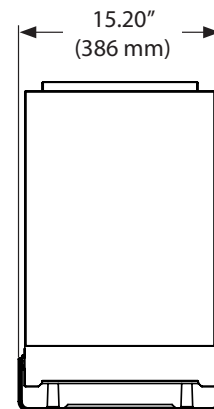
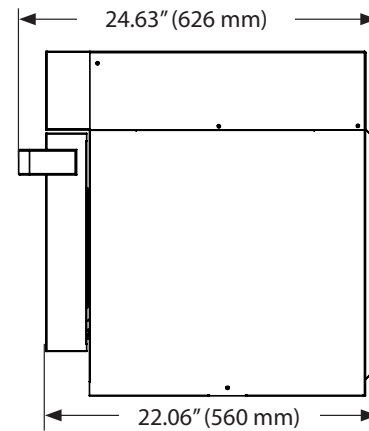
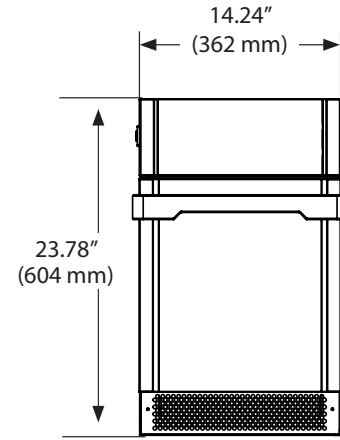
† Ventless certification is for all food items except for foods classified as “fatty raw proteins.” Such foods include bone-in, skin-on chicken, raw hamburger meat, raw bacon, raw sausage, steaks, etc. If cooking these types of foods, consult local HVAC codes and authorities to ensure compliance with ventilation requirements.

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		
Height	23.78	604 mm
Width	14.25"	362 mm
Depth	22.06"	560 mm
Weight	130 lb.	59 kg
Cook Chamber		
Height / Usable Height	7.2" / 5.7"	183 mm / 145 mm
Width	12.5"	318 mm
Depth / Usable Depth	10.5" / 9.3"	267 mm / 236 mm
Volume / Usable Volume	0.54 cu.ft. / 0.38 cu.ft.	15.3 liters / 10.7 liters
Wall Clearance (Oven not intended for built-in installation)		
Top	5"	127 mm
Sides	1"	25 mm
ELECTRICAL SPECIFICATIONS – SINGLE PHASE		
US/CANADA ECS-9500-801: Stainless Steel ECS-9500-805: Jet Black (RAL 9005)	208/240 VAC, 60 Hz, 30 A Max Input: 6.0 kW* MW: 3.2 kW HTR: 6.0 kW Plug: NEMA 6-30P	
EUROPE (UK) ECS-9500-813-UK: Stainless Steel ECS-9500-817-UK: Jet Black (RAL 9005)	230 VAC, 50 Hz, 27 A Max Input: 6.8 kW* MW: 3.2 kW HTR: 6.0 kW Plug: IEC 309, 3-pin	
JAPAN (JK) ECS-9500-825-JK: Stainless Steel ECS-9500-829-JK: Jet Black (RAL 9005)	200 VAC, 50 Hz, 30 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug, NEMA L6-50, PSE, 3-blade	
JAPAN (JK) ECS-9500-831-JK: Stainless Steel ECS-9500-835-JK: Jet Black (RAL 9005)	200 VAC, 60 Hz, 30 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug, NEMA L6-50, PSE, 3-blade	
ELECTRICAL SPECIFICATIONS – SINGLE PHASE		



Continued on next page

* Under normal operation, the oven will not exceed the max input value.

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

BRAZIL (BK) ECS-9500-837-BK: Stainless Steel ECS-9500-841-BK: Jet Black (RAL 9005)	220 VAC, 60 Hz, 28 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug: IEC 309, 3-pin	
LATIN AMERICA (LA) - includes cleaner and guard ECS-9500-849-LA: Stainless Steel ECS-9500-853-LA: Jet Black (RAL 9005)	220 VAC, 60 Hz, 28 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW	
LATIN AMERICA (LA) - without cleaner and guard ECS-9500-855-LA: Stainless Steel ECS-9500-859-LA: Jet Black (RAL 9005)	Plug: NEMA 6-30P	
ELECTRICAL SPECIFICATIONS – MULTIPHASE		
EUROPE DELTA (ED) ECS-9500-867-ED: Stainless Steel ECS-9500-871-ED: Jet Black (RAL 9005)	230 VAC, 50 Hz, 20 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug: IEC 309, 4-pin	
EUROPE WYE (EW) ECS-9500-807-EW: Stainless Steel ECS-9500-811-EW: Jet Black (RAL 9005)	400 VAC, 50 Hz, 16 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug: IEC 309, 5-pin	
AUSTRALIA (AU) ECS-9500-819-AU: Stainless Steel ECS-9500-823-AU: Jet Black (RAL 9005)	400 VAC, 50 Hz, 16 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug: Clipsal, 5-pin	
JAPAN (JD) ECS-9500-873-JD: Stainless Steel ECS-9500-877-JD: Jet Black (RAL 9005)	200 VAC, 50 Hz, 20 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug: NEMA L6-50, PSE, 4-blade	
JAPAN (JD) ECS-9500-901-JD : Stainless Steel ECS-9500-905-JD : Jet Black (RAL 9005)	200 VAC, 60 Hz, 20 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug: NEMA L6-50, PSE, 4-blade	
KOREA/MIDDLE EAST WYE (KW) ECS-9500-861-KW: Stainless Steel ECS-9500-865-KW: Jet Black (RAL 9005)	400 VAC, 60 Hz, 16 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug: IEC 309, 5-pin	

KOREA/MIDDLE EAST WYE (SD) ECS-9500-843-SD: Stainless Steel ECS-9500-847-SD: Jet Black (RAL 9005)	230 VAC, 60 Hz, 20 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug: IEC 309, 4-pin	
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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: 33" x 24" x 34" (838 mm x 610 mm x 864 mm) Crate size: 33" x 24" x 34" (838 mm x 610 mm x 864 mm) Item class: 110 NMFC #26710 HS code 8419.81
Approximate boxed weight: 163 lb. (74 kg) / Approximate crated weight: 191 lb. (87 kg)
Minimum entry clearance required for box: 34.5" (876 mm) Minimum entry clearance required for crate: 34.5" (876 mm)

* Under normal operation, the oven will not exceed the max input value.

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

The Eco ST El Bandido

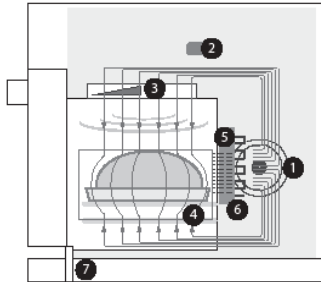


PERFORMANCE

Using patented TurboChef's technology, the Eco ST El Bandido is a rapid cook oven that can operate as a high-speed/high-quality panini press with the flexibility to rapidly cook non pressed foods while requiring less space and consuming less energy.

VENTILATION

- Ventless certification
- EPA 202 test (8 hr):
 - Product: 162 Pepperoni Pizzas
 - Results: 0.89 mg/m³
 - Ventless Requirement: <5.00 mg/m³
- Internal catalytic filtration to limit smoke, grease, and odor emissions.



1. Blower Motor
2. Top-launched Microwave
3. Stirred Impinged Air (Top) and Microwave
4. Air Impingement (Bottom)
5. Catalytic Converter
6. Heater
7. Air Filter

EXTERIOR CONSTRUCTION

- Corrosion-resistant steel outer wrap and door
- Cool-to-touch exterior; all surfaces below 122°F/50°C
- Ergonomic door handle

INTERIOR CONSTRUCTION

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

STANDARD FEATURES

- Simple and intuitive one-touch controls
- Panini press mechanism with anodized aluminum upper and lower griddle press plates
- Single motor vertically circulates 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
- Unlimited recipe storage
- Customizable menu settings via Wi-Fi (additional fees apply), USB or manual entry
- USB compatible
- Self-diagnostics for monitoring oven components and performance
- Includes plug and cord (6 ft. nominal)
- Warranty – 1 year parts and labor
- Open Kitchen ready

CONNECTIVITY PART NUMBERS

- MDD-1001 - Initial equipment, two-way connectivity bundle
- MDD-1002 - Additional equipment, two-way connectivity bundle
- MDD-1003 - Additional year of subscription (PhD SAAS)



STANDARD ACCESSORIES

- 1 Oven Cleaner and Guard Kit (105701)
- 1 Aluminum Paddle (i1-9716)
- 2 Solid PTFE Basket (i1-9166)

CERTIFICATIONS



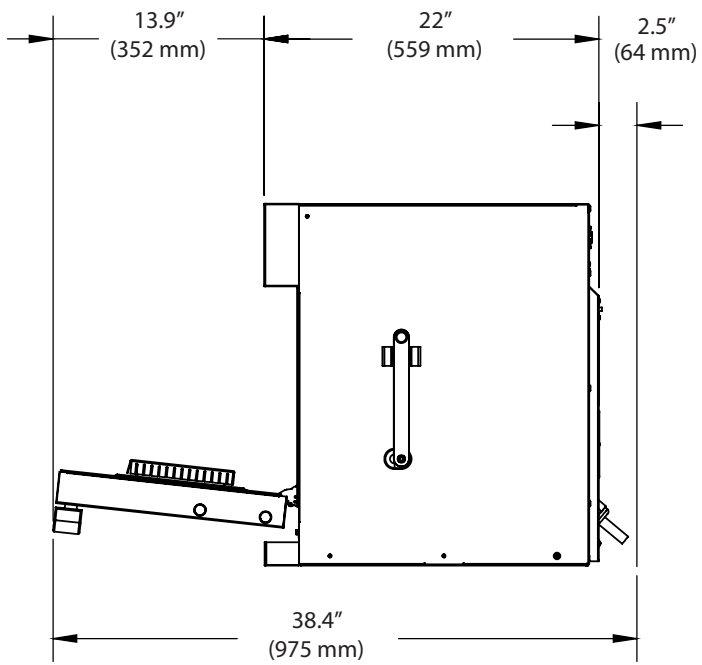
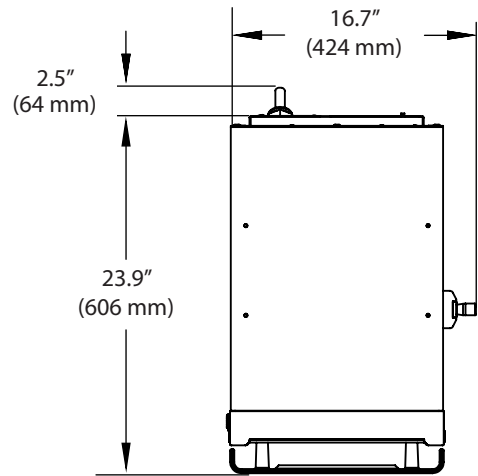
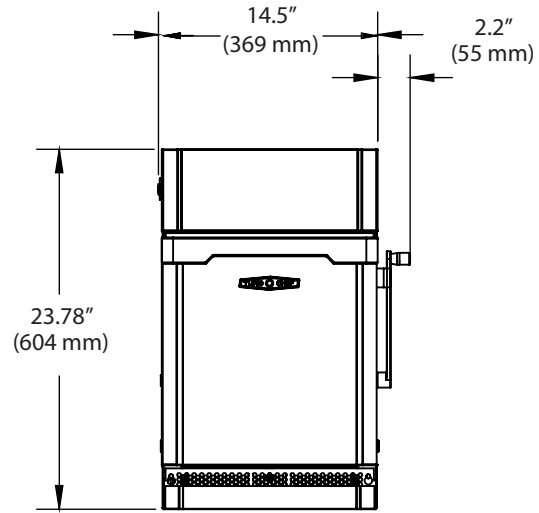
This product conforms to the ventilation recommendations set forth by NFPA96 using EPA202 test method.

[†] 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.

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



DIMENSIONS		
Height	23.78"	604 mm
Width	16.7"	424 mm
Depth	26.4"	670 mm
Weight	135 lb.	61.23 kg
Cook Chamber		
Height / Usable Height	7.2" / 5.7"	183 mm / 145 mm
Width	12.5"	318 mm
Depth / Usable Depth	10.5" / 9.3"	267 mm / 236 mm
Volume / Usable Volume	0.54 cu.ft. / 0.38 cu.ft.	15.3 liters / 10.7 liters
Wall Clearance (Oven not intended for built-in installation)		
Top	5"	127 mm
Sides	1"	25 mm
ELECTRICAL SPECIFICATIONS – SINGLE PHASE		
US/CANADA ECS-9500-1001: Stainless Steel ECS-9500-1005: Jet Black (RAL 9005)	208/240 VAC, 60 Hz, 30 A Max Input: 6.0 kW* MW: 3.2 kW HTR: 6.0 kW Plug: NEMA 6-30P	
EUROPE (UK) ECS-9500-1013-UK: Stainless Steel ECS-9500-1017-UK: Jet Black (RAL 9005)	230 VAC, 50 Hz, 27 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug: IEC 309, 3-pin	
JAPAN (JK) ECS-9500-1025-JK: Stainless Steel ECS-9500-1029-JK: Jet Black (RAL 9005)	200 VAC, 50 Hz, 30 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug, NEMA L6-50, PSE, 3-blade	



*Continued on next page

**Under normal operation, the oven will not exceed the max input value.

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



JAPAN (JK) ECS-9500-1031-JK : Stainless Steel ECS-9500-1035-JK : Jet Black (RAL 9005)	200 VAC, 60 Hz, 30 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug, NEMA L6-50, PSE, 3-blade	
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ELECTRICAL SPECIFICATIONS – SINGLE PHASE

BRAZIL (BK) ECS-9500-1037-BK: Stainless Steel ECS-9500-1041-BK: Jet Black (RAL 9005)	220 VAC, 60 Hz, 28 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug: IEC 309, 3-pin	
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LATIN AMERICA (LA) - includes cleaner and guard ECS-9500-1049-LA: Stainless Steel ECS-9500-1053-LA: Jet Black (RAL 9005) LATIN AMERICA (LA) - without cleaner and guard ECS-9500-1055-LA: Stainless Steel ECS-9500-1059-LA: Jet Black (RAL 9005)	220 VAC, 60 Hz, 28 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug: NEMA 6-30P	
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ELECTRICAL SPECIFICATIONS – MULTIPHASE

EUROPE DELTA (ED) ECS-9500-1067-ED: Stainless Steel ECS-9500-1071-ED: Jet Black (RAL 9005)	230 VAC, 50 Hz, 20 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug: IEC 309, 4-pin	
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EUROPE WYE (EW) ECS-9500-1007-EW: Stainless Steel ECS-9500-1011-EW: Jet Black (RAL 9005)	400 VAC, 50 Hz, 16 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug: IEC 309, 5-pin	
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AUSTRALIA (AU) ECS-9500-1019-AU: Stainless Steel ECS-9500-1023-AU: Jet Black (RAL 9005)	400 VAC, 50 Hz, 16 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug: Clipsal, 5-pin	
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JAPAN (JD) ECS-9500-1073-JD: Stainless Steel ECS-9500-1077-JD: Jet Black (RAL 9005)	200 VAC, 50 Hz, 20 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug: NEMA L6-50, PSE, 4-blade	
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JAPAN (JD) ECS-9500-1001-JD : Stainless Steel ECS-9500-1005-JD : Jet Black (RAL 9005)	200 VAC, 60 Hz, 20 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug: NEMA L6-50, PSE, 4-blade	
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KOREA/MIDDLE EAST WYE (KW) ECS-9500-1061-KW: Stainless Steel ECS-9500-1065-KW: Jet Black (RAL 9005)	400 VAC, 60 Hz, 16 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug: IEC 309, 5-pin	
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KOREA/MIDDLE EAST WYE (SD) ECS-9500-1043-SD: Stainless Steel ECS-9500-1047-SD: Jet Black (RAL 9005)	230 VAC, 60 Hz, 20 A Max Input: 6.2 kW* MW: 3.2 kW HTR: 6.0 kW Plug: IEC 309, 4-pin	
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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: 33" x 24" x 34" (838 mm x 610 mm x 864 mm) Crate size: 33" x 24" x 34" (838 mm x 610 mm x 864 mm) Item class: 110 NMFC #26710 HS code 8419.81
Approximate boxed weight: 168 lb. (76 kg) / Approximate crated weight: 196 lb. (89 kg)
Minimum entry clearance required for box: 34.5" (876 mm) Minimum entry clearance required for crate: 34.5" (876 mm)

* Under normal operation, the oven will not exceed the max input value.

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



81Y5

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

Issued to: TURBOCHEF TECHNOLOGIES INC
2801 Trade Center Dr
Carrollton TX 75007

**This is to certify that
representative samples of** MICROWAVE COOKING APPLIANCES; COOKING
APPLIANCES, ELECTRICAL, MARINE; COMMERCIAL
COOKING APPLIANCES WITH INTEGRAL SYSTEMS
FOR LIMITING THE EMISSION OF GREASE-LADEN AIR
Commercial Microwave/Convection Oven, Model "ECO"
and "ECOST".

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 923, Microwave Cooking Appliances
CSA-C22.2 No. 150-16, Microwave Ovens

Additional Information: See the UL Online Certifications Directory at
www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's
Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.

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**

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

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

* - Indicated complementary listed models.

NOTE: The ECO ST falls under NGO (i1).

Trademark and/or Tradename: "BULLET"

Last Updated on 2018-06-07

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

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TurboChef Energy Calculator

User Inputs

Total Operation Time per Day (hours)	12	hours
Cook Cycle Time (seconds)	40	seconds
Number of Cooks per Day	100	total
Energy Cost/kWhr (\$)	0.11	\$/kWhr

Constants	ECO ST
Power Warm-up (watts)	4,000
Power Cooking (watts)	3,400
Power Idle (watts)	695
Time Warm-up (seconds)	480

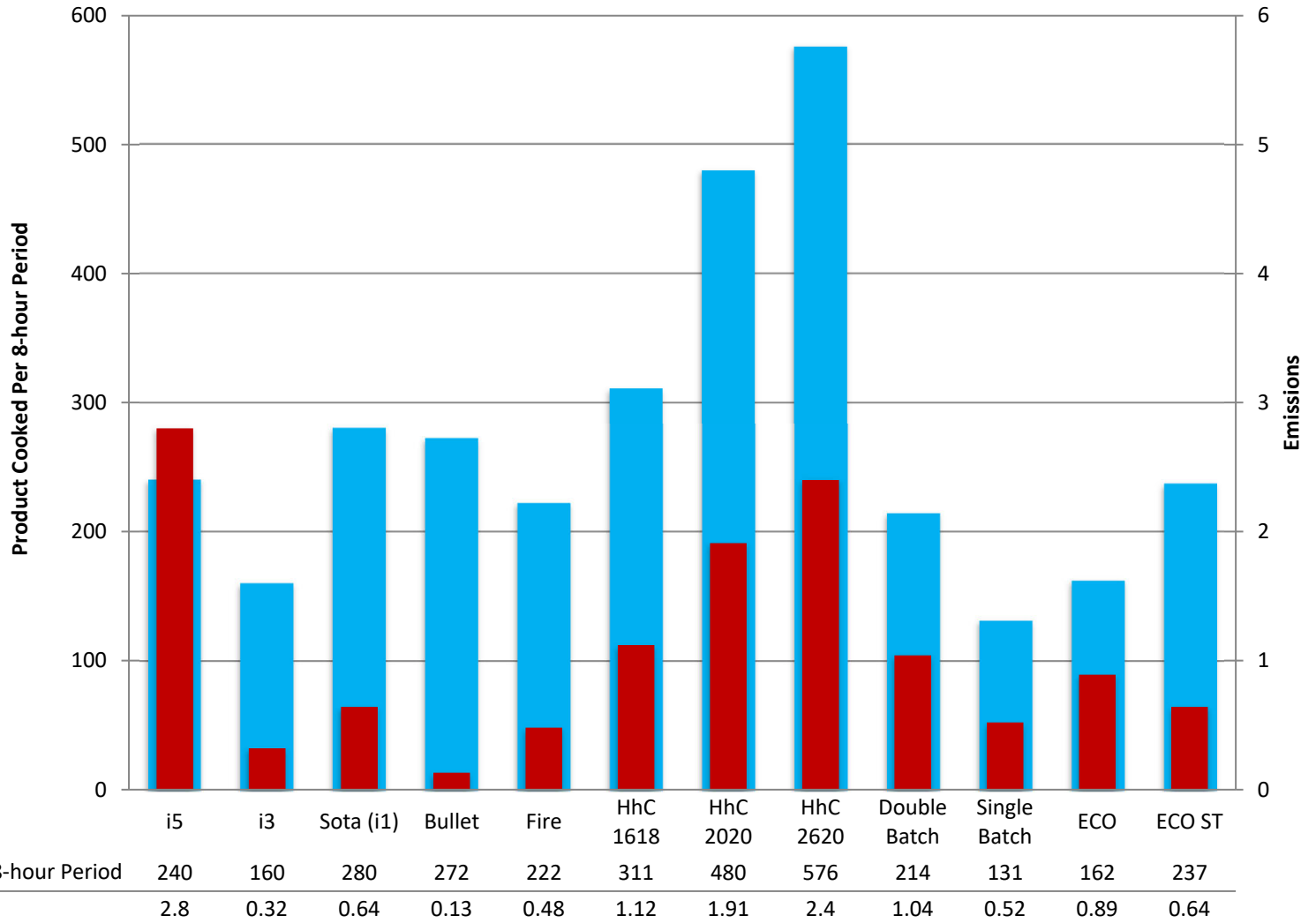
Energy = (Power x time), where power is in watts and time is in seconds

$E_{total} = E_{idle} + E_{cooking} + E_{warmup}$

Ave Power = $E_{total} / \text{total time per day}$

Calculated Times	ECO ST
Time (cooking, sec)	4,000
Time (idle, sec)	38,720
Time Check	12
Eidle (kJ)	26,910
Ewarm-up (kJ)	1,920
Ecooking (kJ)	13,600
Etotal (kJ)	42,430
Etotal (kWhr)	11.79
Avg Power/Day (kW)	0.98
Tons of Cooling	0.28
Total Cost/Day (\$)	\$1.30
Total Cost/Month (\$)	\$39.00
Total Cost/Year (\$)	\$474.50

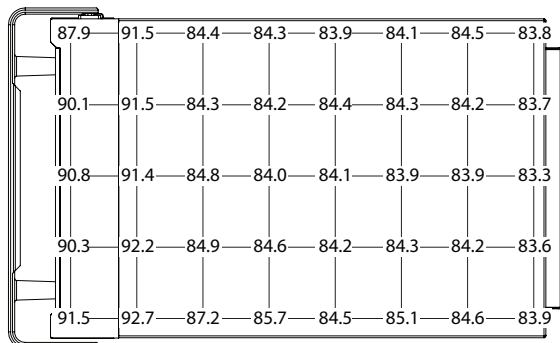
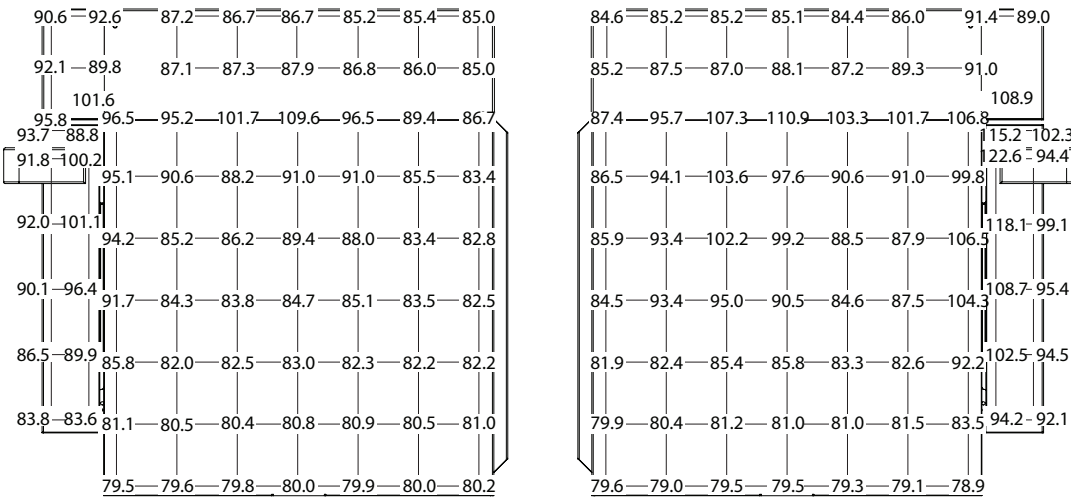
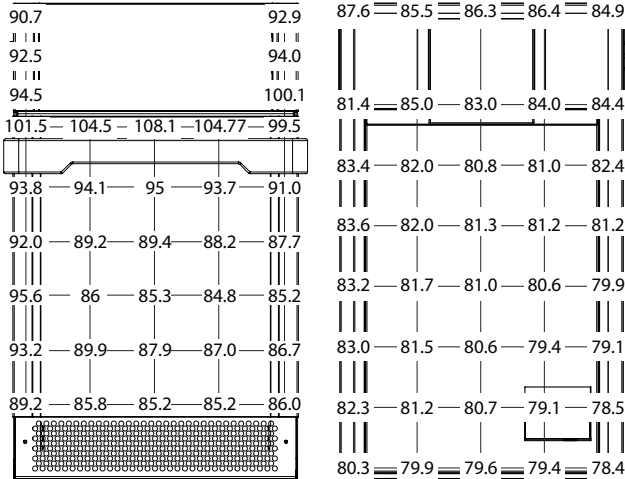
UL® (KNLZ)
Emissions by Product
 Ventless Requirement: <5.00 mg/m³



ECO ST Oven Surface Temperatures

This document illustrates the surface temperature testing data reported for the TurboChef ECO ST oven. Measurements were recorded after two hours of idle. The oven temperature was set to 540°F/282°C for the duration of the test.

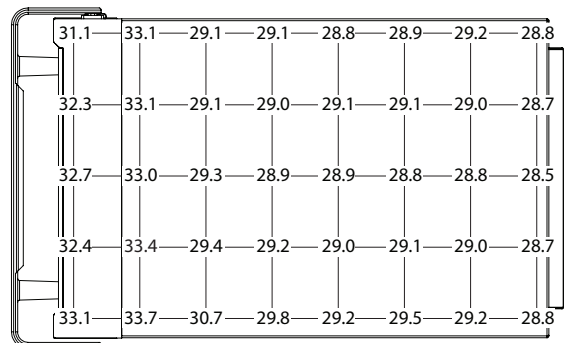
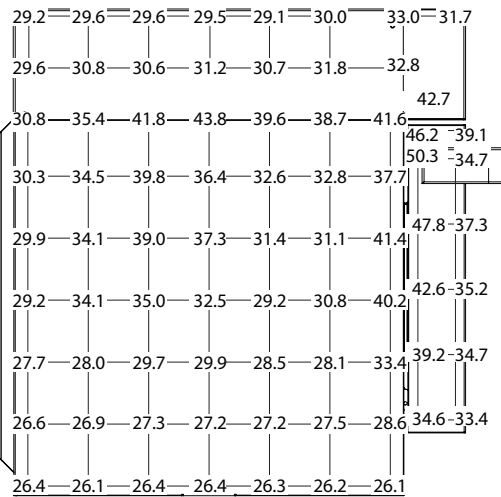
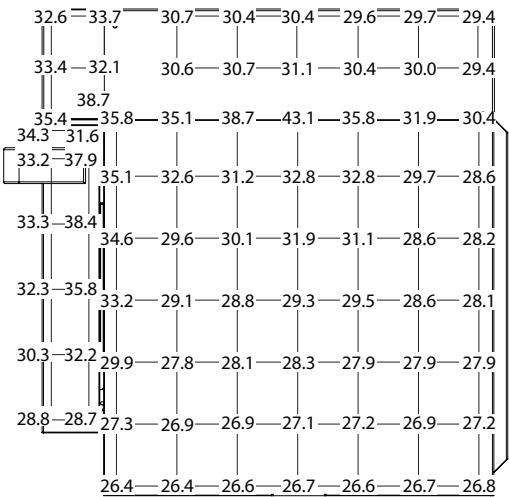
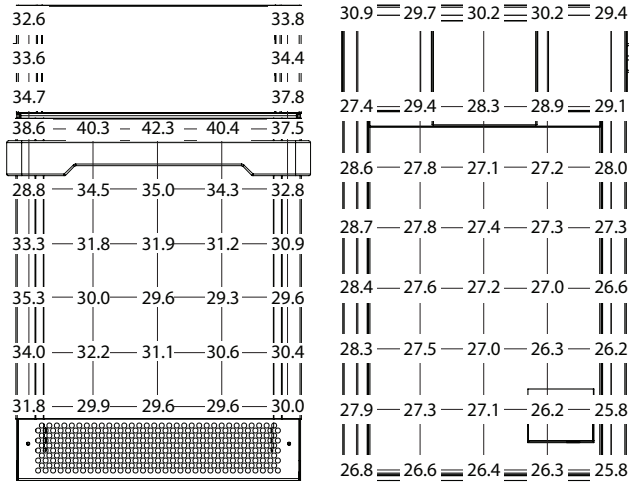
After 2-hour Idle at 540°F (Values in °F)



ECO ST Oven Surface Temperatures

This document illustrates the surface temperature testing data reported for the TurboChef ECO ST oven. Measurements were recorded after two hours of idle. The oven temperature was set to 540°F/282°C for the duration of the test.

After 2-hour Idle at 282°C (Values in °C)



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, permissible 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	50 amp	1 Ph
	208/240 VAC	30 amp	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	30 amp	3 Ph
	208/240 VAC	50 amp	1 Ph
HhC 2020	208/240 VAC	50 amp	3 Ph
HhC 2620	208/240 VAC	50 amp	3 Ph
i1 (Panini, Söta / Söta Single Mag, El Bandido, Waterless Steamer)	208/240 VAC	30 amp	1 Ph
i1 Söta Single Mag	208/240 VAC	20 amp	1 Ph
i3	208/240 VAC	40 amp	1 Ph
	208/240 VAC	30 amp	3 Ph
i5	208/240 VAC	50 amp	1 Ph
	208/240 VAC	30 amp	3 Ph
Single Batch	208/240 VAC	30 amp	1 Ph
Tornado	208/240 VAC	30 amp	1 Ph

* NSF certification applies to the Tornado, C3, and HhB 2 ovens only. UL EPH certification applies to all ovens except the C3.

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

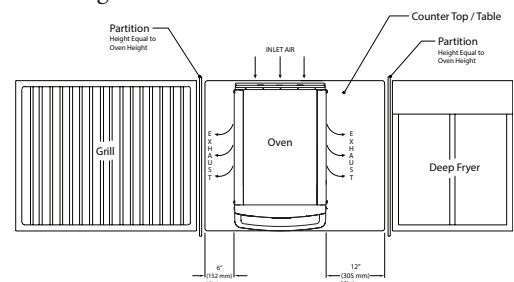
To ensure continued compliance with all health, building, and fire codes, users are required to:

- 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	Top	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, Söta / Söta 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.

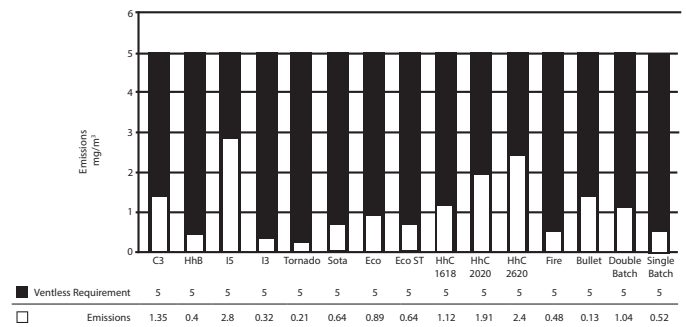
The heat load from TurboChef ovens is mostly sensible. The only latent heat present is due to evaporation during the cooking process. When installing a TurboChef oven, the space must have the following tons of AC per oven installed.

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, Söta / Söta 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 non-condensable 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.