



# 1400 Series Impinger® I Single Belt Conveyorized Oven

## Models

- |                                     |                                     |                                     |                                     |                                     |
|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> 1421-000-E | <input type="checkbox"/> 1447-000-E | <input type="checkbox"/> 1452-000-U | <input type="checkbox"/> 1454-000-N | <input type="checkbox"/> 1457-S00-B |
| <input type="checkbox"/> 1433-000-E | <input type="checkbox"/> 1450-000-U | <input type="checkbox"/> 1453-000-U | <input type="checkbox"/> 1455-000-N | <input type="checkbox"/> 1458-P00-E |
| <input type="checkbox"/> 1434-000-E | <input type="checkbox"/> 1451-000-U | <input type="checkbox"/> 1454-000-U | <input type="checkbox"/> 1456-S00-B |                                     |

Lincoln *Impinger* Conveyor Ovens are the premier continuous cook platform for the food service industry. Using the latest advancements in air impingement technology, *Impinger* ovens allow for rapid heating, cooking, baking, and crisping of foods, typically done two to four times faster than conventional ovens.



## Benefits

### Faster Bake Times

- Improved Response to Customer
- Advanced Air Impingement Enhances Product Quality and Uniformity
- Optional FastBake Technology Reduces Cook Time by Up to An Additional 35% With No Food Quality Loss or Noise Increase

### Easier Operation

- Digital Controls with Single On/Off Switch
- Microprocessor Controlled Bake Time/Conveyor Speed
- Locked Setting to Prevent Unintended Changes
- Fluorescent Display Indicating Temperature, Belt Speed, Thermostat, and Diagnostic Messages

### Easier Cleaning

- Front Door for Finger Access and Removal
- Removable Conveyor Through Side Opening

### Unparalleled Support

- Customer-specific Finger Setup for Menu Flexibility
- Research and Applications Team Help Achieve Ideal Cooking Results
- Manitowoc Star Service Committed to Owner Satisfaction

## Specifications

### General

Stainless Steel Top, Front and Sides  
 40" (1,016mm) Long Baking Chamber  
 Front Removable Fingers  
 Stackable Up To Two High  
 Includes Oven Start-Up/Check-Out  
 by Manitowoc STAR Authorized  
 Service Agent

### Conveyor

32" (813mm) Wide x 73" (1,854mm) Long  
 Side Removable  
 Product Stop  
 One to Thirty Minute Cook Time  
 Reversible

### Cooking

Customer Specific Finger Setup  
 Temperature Range 260°F to 600°F  
 (127°C to 316°C)  
 Front Loading Glass Access Door  
 with Cool to the Touch Handle  
 Digital Control Panel

### Optional

FastBake Technology Reduces Cook Time  
 by Up to An Additional 35% With No  
 Food Quality Loss or Noise Increase  
 Entry and Exit Shelves  
 Flexible Gas Connector  
 Split Belt



## Gas Supply Pressure Recommendations

Gas Type	Supply (Inlet) Pressure (mbar)	Recommended Minimum Gas Pipe Size
Natural	7-14" WC (2.2 kPa / 22.4 mbar - 3.5 kPa / 34.9 mbar)	2" (51 mm)
LP	11-14" WC (2.7 kPa / 27.36 mbar - 3.5 kPa / 34.9 mbar)	2" (51 mm)

\*Gas supply pressures are dependent on local gas type and on all applicable local codes. Agency approved flexible connection to each oven must be minimum 3/4" (19 mm) NPT and length must not exceed six (6) feet (1829 mm).

## Electrical Service

Each oven deck requires voltage, phase and hertz as indicated by model number. Neutral must be grounded at electrical service and receptacle properly polarized. Gas 120V units have a cord with NEMA 5-15 plug. All other models have terminal block connections. It is recommended that a separate circuit breaker be provided for each oven deck.

## Recommended Minimum Clearances

Rear of oven to combustible surface: 6" (152 mm). Clearance on right side from other cooking equipment: 24" (610 mm). Clearance required to remove conveyor for cleaning: 11' (3553 mm).

## Warranty

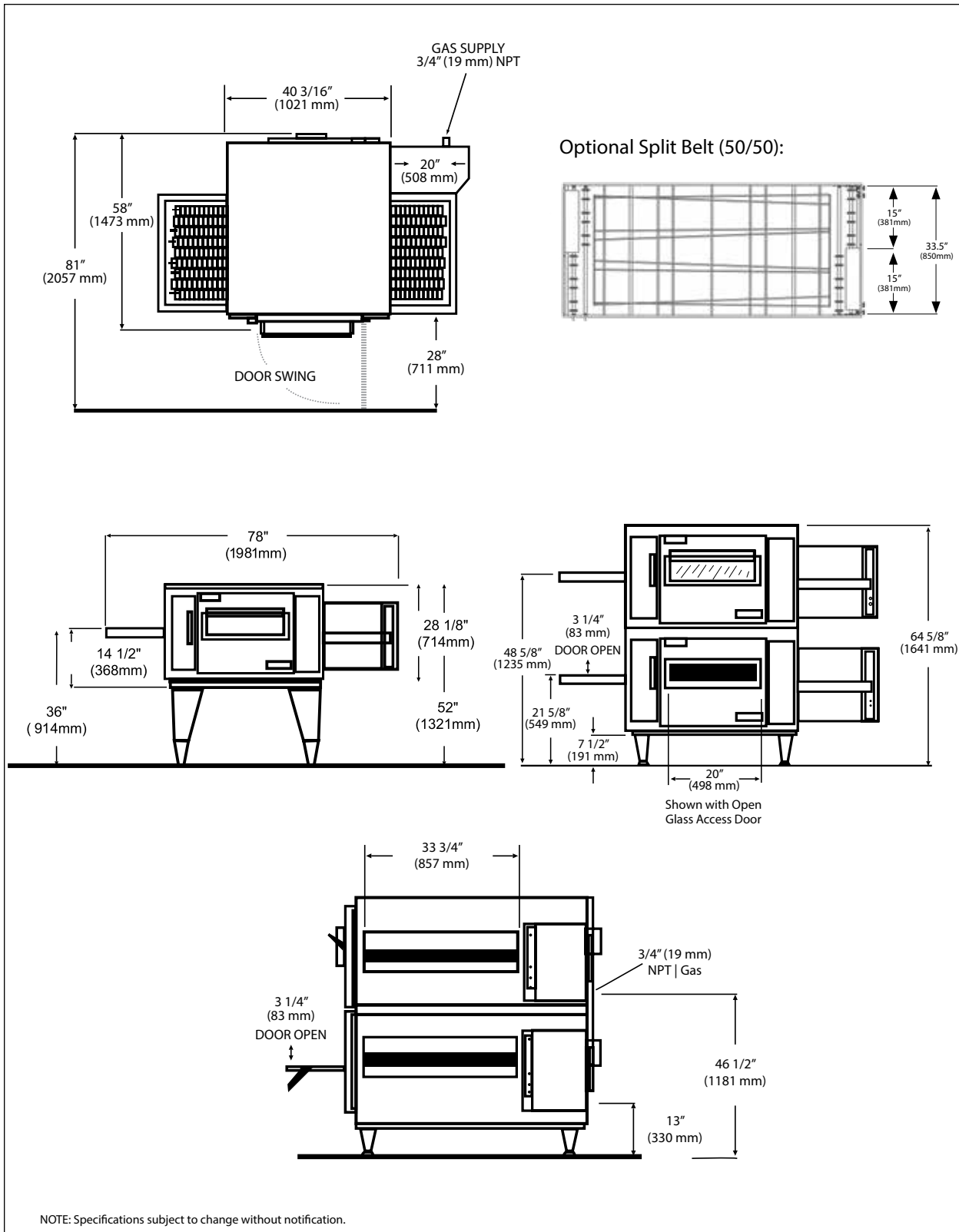
All new *Impinger* ovens installed in the United States and Canada come with a one (1) year parts and labor warranty starting from the date of start-up/check-out. All ovens installed in locations other than in the US and Canada are warrantied for one (1) year parts and ninety (90) days labor starting from the date of start-up/check-out. Start-up/check-out must occur within 24 months of date of manufacture.

## General Information

All 1400 Models	Length	Depth	Height Single	Height Double Stacked
	78" (1981 mm)	58" (1473 mm)	52" (1321 mm)	64 5/8" (1641 mm)

Model Number	Agency	Utility	Input Rate	Voltage	Hertz	Phase	Supply
1433-000-E	UL EPH/CE	Natural	120,000 BTU/Hr. 34.8 kW 126.6 MJ	230	50	1	3
1450-000-U	UL EPH/CSA	Natural		120	60	1	3
1456-500-B	AGA/UL EPH	Natural		240	50	1	3
1434-000-E	UL EPH/CE	LP		230	50	1	3
1447-000-N	UL EPH	LP		220	60	1	3
1451-000-U	UL EPH/CSA	LP		120	60	1	3
1457-500-B	AGA/UL EPH	LP	240	50	1	3	
1421-000-E	UL EPH/CE	Electric	27 kW	400/230	50	3	5
1452-000-U	UL EPH/UL/cUL	Electric		120/208	60	3	5
1453-000-U	UL EPH/UL/cUL	Electric		120/240	60	3	5
1454-000-N	UL EPH/UL/cUL	Electric		380Y/220	50	3	5
1455-000-N	UL EPH/UL/cUL	Electric		415Y/240	50	3	5
1458-000-E	UL EPH	Electric		400	50	3	4

NOTE: Panel setups are added as kit numbers to the end of the model number to complete the oven order; (Example: 1450-000-U-K1801 is a 1450-000-U with standard setup, left to right.)

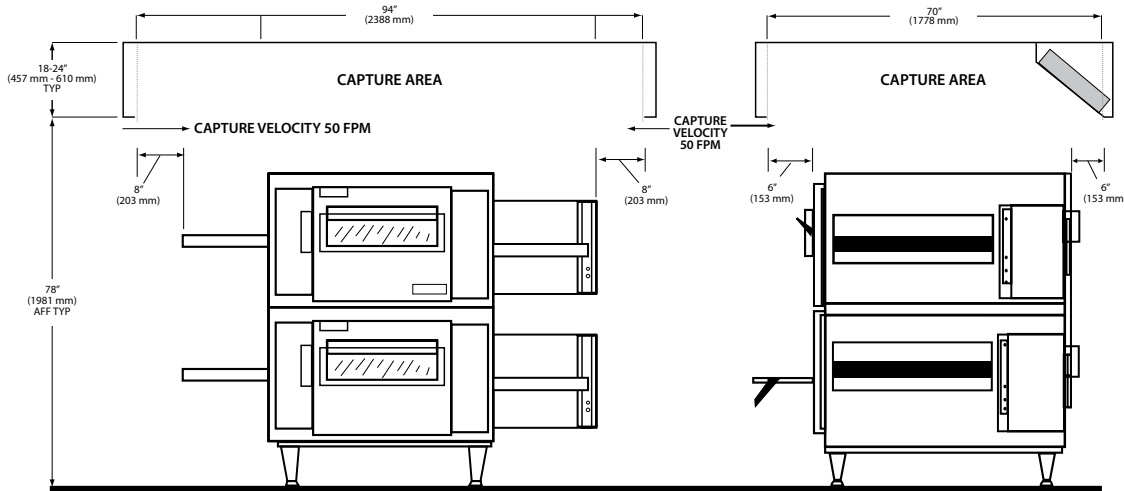


## Capacity Estimates | Pies Per Hour

Pie Size	BAKE TIME								
	3 min.	3½ min.	4 min.	4½ min.	5 min.	5½ min.	6 min.	6½ min.	7 min.
12" (30 cm)	182	155	135	120	108	99	90	84	78
14" (36 cm)	115	99	87	88	69	63	58	53	50
16" (41 cm)	101	87	76	67	61	55	51	47	44

## Ventilation Requirements

Ventilation is required. Local codes prevail. These are the "authority having jurisdiction" as stated by the National Fire Protection Association, Inc., in NFPA 96-1994. Estimates of CFM requirements can vary from 2400 to as high as 6000 CFM exhaust. In all cases the ambient temperature around the oven must not exceed 95°F (35°C) when the oven is operating. **This information is shown as a guideline for ventilating the Impinger® 1400 Ovens.**



1. Dimensions shown are for ovens without long extension shelves. **The outside end of the conveyor frame must be a minimum of eight (8) inches (203 mm) inside the canopy as shown.**
2. **The capture velocity across the lower edge of the canopy is to be 50 FPM at sides and front.**
3. Use filters at rear exhaust area of the hood, as shown. Do **not** just put an opening into a 4 sided canopy.
4. The ovens are to be centered in the canopy space left-to-right and front-to-back if possible.
5. A six (6) inch space at rear of oven is recommended for utilities.
6. Use of a Type I or Type II application and overall final installation is determined per local codes.
7. **Recommended 2400-3000 CFM exhaust**, typical, or higher per local codes; as a guideline to obtain adequate capture velocity.
8. **Recommended 80% of make-up air provided outside of the canopy** through perforated metal diffusers directed straight down... **not at the oven**; located at front, side or both.
9. **Room air diffusers must not be directed onto the oven and should be positioned a minimum of three (3) feet from the perimeter of the hood to keep airflow from affecting the oven.**

NOTE: Specifications subject to change without notification.