

# HELLER INDUSTRIES, INC.

Model	1812MKIII (Air)	1812 MKIII-N (Nitrogen)
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### Electric Supply

Power Input (3 Phase) Standard	480 volts	480 volts
Breaker Size	100 amps @ 480v	100 amps @ 480v
kW	9 – 13 Continuous*	9 – 13 Continuous*
Typical Run Current	25 – 30 amps @ 480v	25 – 30 amps @ 480v
Optional Power Inputs Available	208/240/380/400/415 VAC	208/240/380/400/415 VAC
Frequency	50/60 Hz	50/60 Hz
Sequential Zone Turn On	S	S
Single Phase Operation	Not Available	Not Available

### Dimensions

Overall Length	175" (444.5 cm)	200" (508 cm)
Overall Width	54" (137 cm)	54" (137 cm)
Overall Height	63" (160 cm)	63" (160 cm)
Typical Net Weight	4000 lbs. (1820 kg)	4500 lbs. (2045 kg)
Typical Shipping Weight (Domestic)	4500 lbs. (2045 kg)	5000 lbs. (2275 kg)
Typical Shipping Weight (Export)	5000 lbs. (2275 kg)	5500 lbs. (2500 kg)
Typical Shipping Dimension (Export)	187" x 75" x 77"	215" x 75" x 77"

### Computer Control

Intel or AMD Processor	S	S
Recipe Storage	> 500	> 500
Flat Screen Color Monitor	S	S
Windows Operating System	Windows 7	Windows 7
Computer Monitor Mount	S	S
Auto Start Software	S	S
Data Logging	S	S
Password Protection	S	S
LAN Networking	O	O

### Inert Atmosphere

Minimum PPM Oxygen	-	10-25 PPM
Flexible Entrance and Exit Doors	-	S
Nitrogen Cooling	-	S
Waterless Cooling w/ Flux Separation System	-	O
Nitrogen On/Off Valve	-	O
Oxygen Monitoring System	-	O
Nitrogen Standby System	-	O
Sample Port in Reflow	-	S
Typical Nitrogen Consumption	-	500 – 700 SCFH **

### Additional Features

KIC Profiling Software	S	S
Signal Light Tower	S	S
Powered Hood Lift	S	S
Five (5) Thermocouple Profiling	S	S
30" Heater Modules	O	O
Redundant Alarm Sensors	O	O
Independent Alarm Scanner	O	O
KIC Profiler / ECD Profiler	O	O
Center Board Support	O	O
Board Drop Sensor	O	O
Board Counter	O	O
Bar Code Reader	O	O
Custom Paint & Decal	O	O
Battery Backup for Conveyor and PC	O	O
GEM/SECS Interfacing	O	O
Custom Engineering and Software	Available	Available

\* Varies depending on Options included with the oven

\*\* Tested at 500 PPM. Can vary with PCB size and oven configuration

*Specifications Continue on page 2*

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## Mesh Belt Conveyor

Height From Floor	35.5" ± 2.0" (90 cm ± 5 cm)	35.5" ± 2.0" (90 cm ± 5 cm)
Maximum PCB Width ** Requires 30" Heater Module	18" (46 cm) 22" (56 cm)**	10" (25 cm) 15" (38 cm) 18" (46 cm) 22" (56 cm)**
Conveyor On-Load / Off-Load	2" (5 cm) *	6" (15 cm) *
Heated Tunnel Length	130" (330.2 cm)	130" (330.2 cm)
Cooling Tunnel Length	30" (70cm)	30" (70cm)
Process Clearance Above Mesh Belt	2.3" (5.8 cm)	2.3" (5.8 cm)
Mesh Belt Pitch	0.5" (1.27 cm)	0.5" (1.27 cm)
Maximum Conveyor Speed	74"/Min (188 cm/min.)	74"/Min (188 cm/min.)
Conveyor Direction Left to Right	S	S
Conveyor Direction Right to Left	O	O
Conveyor Speed Control Type	Closed Loop	Closed Loop

## Edge Hold Conveyor System Option

Height from Floor – Standard	37.0" ± 2.0" (94 cm ± 5 cm)	37.0" ± 2.0" (94 cm ± 5 cm)
Height from Floor – Optional	32.6" +3.9" / -.4" (83 cm + 10 cm / -1 cm)	32.6" +3.9" / -.4" (83 cm + 10 cm / -1 cm)
Clearance Above /Below Conveyor Pin	1.15" (2.9 cm)	1.15" (2.9 cm)
Length of PCB Support Pins	.187" (4.75 mm)	.187" (4.75 mm)
3 mm long support pins	O	O
Minimum/Maximum Board Width ** Requires 30" Heater Modules	2.0" – 18" (5 – 46 cm) 22" (56 cm)**	2.0" – 18" (5 – 46 cm) 22" (56 cm)**
Power Width Adjustment	S	S
Computer Controlled Width Adjust	O	O
Auto Lubrication System	O	O

## Forced Convection Zones

Top Heat	12	12
Bottom Heat	11	11
Heater Type	Instant response open coil	Instant response open coil
Heater Material	Ni-chrome	Ni-chrome
Profile Change Time	5 – 15 minutes	5 - 15 minutes

## Temperature Control

Accuracy of Temperature Controller	± .1°C	± .1°C
Cross-Belt Temperature Tolerance	± 2.0°C	± 2.0°C
Heater Wattage Per Zone	6000 w	6000 w
Temperature Range Standard	25-350°C	25-350°C
High Temperature Up to 450°C	O	O
Insulation Type	Calcium Silicate	Calcium Silicate

## Cooling Systems

Number of Cooling Zones Standard	2	2
Additional Cooling Zones	-	-
Water Cooling	-	O
Waterless Cooling	-	O

**Notes:** S = Standard, O = Optional. \* A 12" (30 cm) Conveyor extension is an available option

*Specifications continue on reverse.*

A continuous program of product improvement may result in changes to specification and performance.  
The right is reserved to institute these improvements without notice or liability.

**HELLER**  
INDUSTRIES, Inc.  
At the leading edge of electronic assembly