

### Heller® Reflow Oven Specifications

Model	1809 EXL (Air)	1809 EXL-S (Air)	1809 EXL-N (Nitrogen)
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#### Mesh Belt Conveyor

Height From Floor	35.5" $\pm$ 2.0" (90 $\pm$ 5 cm)	35.5" $\pm$ 2.0" (90 $\pm$ 5 cm)	35.5" $\pm$ 2.0" (90 $\pm$ 5 cm)
Maximum PCB Width	22" (56 cm)	22" (56 cm)	10" (25 cm) 15" (38 cm) 18" (46 cm) 22" (56 cm)
Space Required Between PCB's	0.0" (0.0 cm)	0.0" (0.0 cm)	0.0" (0.0 cm)
Conveyor Length On-Load	18" (46 cm) *	2" (5 cm) *	6" (15 cm) *
Conveyor Length Off-Load	18" (46 cm) *	2" (5 cm) *	6" (15 cm) *
Heated Tunnel Length	105" (267 cm)	105" (267 cm)	105" (267 cm)
Process Clearance Above Mesh Belt	2.3" (5.8 cm)	2.3" (5.8 cm)	N/A (No Mesh belt incld.)
Mesh Belt Pitch	0.5" (1.27 cm)	0.5" (1.27 cm)	N/A
Maximum Conveyor Speed	74"/Min (188 cm/min.)	74"/Min (188 cm/min.)	74"/Min (188 cm/min.)
Conveyor Direction Left to Right	S	S	S
Conveyor Direction Right to Left	O	O	O
Conveyor Speed Control Type	Closed Loop	Closed Loop	Closed Loop

#### Edge Hold Conveyor System Option

Height from Floor – Standard	37.0" $\pm$ 2.0" (94 $\pm$ 5 cm)	37.0" $\pm$ 2.0" (94 $\pm$ 5 cm)	37.0" $\pm$ 2.0" (94 $\pm$ 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)	32.6" +3.9" / -.4" (83 cm + 10 cm / -1 cm)
Clearance Above Conveyor Pins	1.15" (2.9 cm)	1.15" (2.9 cm)	1.15" (2.9 cm)
Clearance Below Conveyor Pins	1.15" (2.9 cm)	1.15" (2.9 cm)	1.15" (2.9 cm)
Length of PCB Support Pins	.187" (4.75 mm)	.187" (4.75 mm)	.187" (4.75 mm)
3 mm long support pins	O	O	O
Minimum/Maximum Board Width	2.0" – 20" (5 – 50.8 cm)	2.0" – 20" (5 – 50.8 cm)	2.0" – 20" (5 – 50.8 cm)
Edge Hold Rail Heaters	Not Required	Not Required	Not Required
Power Width Adjustment	S	S	S
Computer Controlled Width Adjust	O	O	O
Auto Lubrication System	S	S	S

#### Forced Convection Zones

Top	9	9	9
Bottom	8	8	8
Heater Type	Instant response open coil	Instant response open coil	Instant response open coil
Heater Material	Nichrome	Nichrome	Nichrome
Profile Change Time	1 - 15 minutes	1 - 15 minutes	1 - 15 minutes

#### Temperature Control

Accuracy of Temperature Controller	$\pm$ 0.1°C	$\pm$ 0.1°C	$\pm$ 0.1°C
Cross-Belt Temperature	+ 2.0°C	+ 2.0°C	+ 2.0°C

Tolerance			
Heater Wattage Per Zone	6000 w	6000 w	6000 w
Temperature Range Standard	25-450°C	25-450°C	25-450°C
Insulation Type	Calcium Silicate	Calcium Silicate	Calcium Silicate
UV Cure	O	O	O

#### Cooling Systems

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

Specifications continue on

Model	1800 EXL (Air)	S 1800 EXL- (Air)	1800 EXL- N (Nitrogen)
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#### Electric Supply

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

#### Dimensions

Overall Length	183" (465 cm)	150" (381 cm)	183" (465 cm)
Overall Width	54" (137 cm)	54" (137 cm)	54" (137 cm)
Overall Height	63" (160 cm)	63" (160 cm)	63" (160 cm)
Typical Net Weight	3500 lbs. (1588 kg)	3500 lbs. (1588 kg)	3500 lbs. (1588 kg)
Typical Shipping Weight (Domestic)	4000 lbs. (1814 kg)	4000 lbs. (1814 kg)	4000 lbs. (1814 kg)
Typical Shipping Weight (Export)	4500 lbs. (2041 kg)	4500 lbs. (2041 kg)	4500 lbs. (2041 kg)

#### Computer Control

AMD K-6/Pentium II or greater	S	S	S
14" SVGA Monitor	S	S	S
Flat Screen Monitor	O	S	O
Windows Operating System	Windows 98®	Windows 98®	Windows 98®
DOS 6.2 Operating System or higher	O	O	O
Computer Swing Arm	S	S	S
Auto Start Software	S	S	S
Data Logging	S	S	S
Profile Storage of up to 500 profile graphs	S	S	S
Password Protection	S	S	S
LAN Networking	O	O	O

#### Inert Atmosphere

Minimum PPM Oxygen	-	-	10-25 PPM
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Flexible Entrance and Exit Doors	-	-	S
Nitrogen Cooling	-	-	S
Waterless Cooling w/ Flux Separation System	-	-	S
Nitrogen On/Off Valve	-	-	O
Oxygen Monitoring System	-	-	S
Nitrogen Standby System	-	-	S
Sample Port in Reflow	-	-	S
Typical Nitrogen Consumption	-	-	800-1000 SCFH

#### **Additional Features**

KIC Profiling Software	S	S	S
Signal Light Tower	S	S	S
Powered Hood Lift	S	S	S
Five (5) Thermocouple Profiling	S	S	S
Air Flux Separation System	O	O	N/A
Redundant Alarm Sensors	O	O	O
Independent Alarm Scanner	O	O	O
Center Board Support – Specify Power Adjust, Computer Control or Thin Profile	O	O	O
Board Drop Sensor	O	O	O
Board Counter	O	O	O
Bar Code Reader	O	O	O
Custom Paint & Decal	O	O	O
Battery Backup for Conveyor and PC	S	S	S
GEM/SECS Interfacing	O	O	O
Custom Engineering and Software	Available	Available	Available

*Continue on Reverse*