



Glo-Ray® Dual Aluminum Infrared Strip Heaters with Lights

Standard Watt Models:

GRAL-18D, -24D, -30D, -36D, -42D, -48D, -54D, -60D, -66D, -72D, -84D, -96D, -108D, -120D, -132D, -144D

High Watt Models:

GRAHL-18D, -24D, -30D, -36D, -42D, -48D, -54D, -60D, -66D, -72D, -84D, -96D, -108D, -120D, -132D, -144D

Create a deeper holding area with Glo-Ray® Dual Aluminum Infrared Foodwarmers mounted side-by-side, keeping hot food at optimum serving temperatures. The pre-focused heat pattern directs heat from a metal sheathed element across the entire holding surface. The continuous aluminum housing and heavy-duty mountings ensure the durability and quality of Hatco products.

Standard features

- Provides even heat distribution – no “cold spots”
- Pre-focused heat maintains safe serving temperatures longer
- Sturdy extruded aluminum housings that do not sag, from 18" to 144" (457 to 3658 mm)
- Metal sheathed heating elements guaranteed against burnout and breakage for two years
- Reflector does not blacken, maintaining a consistent heat pattern
- Coated shatter-resistant incandescent lights enhance product display while safeguarding food from bulb breakage
- Reinforced wire guard provides operator safety without affecting heat distribution
- 3" or 6" (76 or 152 mm) spacer available for in between units for deeper holding area
- Heavy-duty insulation minimizes heat loss
- Optional sneeze guard made of shatterproof, easy-to-clean acrylic provide safe food serving environment
- Additional reflector styles and lower wattage elements also available, please consult factory for more information

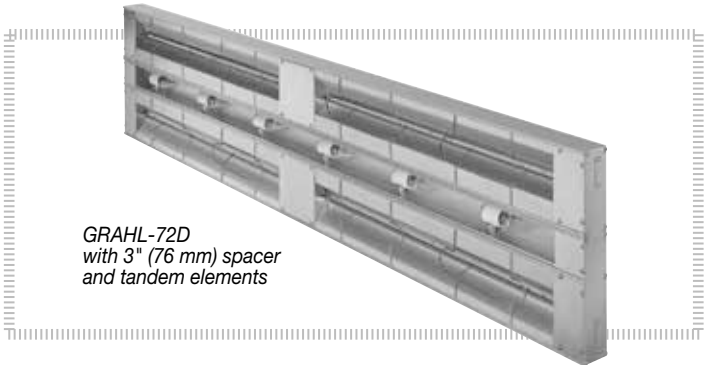
†Non-standard colors are non-returnable

For operation, location and safety information, please refer to the Installation & Operating Manual.

Project _____

Item # _____

Quantity _____



GRAHL-72D with 3" (76 mm) spacer and tandem elements

Options (available at time of purchase only)

Housing in *Designer Color* or Gloss Finish† (clear anodized standard)

- 15" (4572 mm) 18" (457 mm)
- Warm Red Black Gray Granite White Granite
- Navy Blue Hunter Green Antique Copper
- Radiant Red Glossy Gray Bold Black Gleaming Gold
- Brilliant Blue

Indicator Light (Remote only)

Power Leads – Extended beyond Standard 3' (914 mm) Conduit (specify lead length)

- 1'-5' (305-1525 mm) 6'-10' (1829-3048 mm)
- 11'-15' (3352-4572 mm) 16'-20' (4877-6096 mm)

Sneeze Guard

- 9.375" (238 mm) – One Side 9.375" (238 mm) – Two Sides
- 14" (356 mm) – One Side 14" (356 mm) – Two Sides

Bulbs

- No Bulbs Halogen Bulb in lieu of Display 60 watt) U.S. Canada only)

Extra Lamps – Installed (max. two per ft. less one – one per ft. is standard)

Bright Annealed Reflector for Lights

- 3" (76 mm) Spacer 6" (152 mm) Spacer

No control included

Remote Infinite Switches in lieu of Toggle (max. 12.2 amps)

Remote Toggle Switches (max. 15 amps)

Remote Box (clear anodized standard) – choose *Designer Color* or Gloss Finish†

- Warm Red Black Gray Granite White Granite
- Navy Blue Hunter Green Antique Copper
- Radiant Red Glossy Gray Bold Black Gleaming Gold
- Brilliant Blue

Factory attaches Control Box to Strip Heater (Export only)

Adjustable Tubular Stands (ATL) (not available in *Designer* colors)

- 10" (254 mm) 14" (356 mm)

Non-Adjustable Tubular Stands (NTL) – (matches housing color†) – choose clearance below

- 10" (254 mm) 12" (305 mm) 14" (356 mm) 16" (406 mm)

Accessories

Adjustable Angle Brackets (with clearance above unit)

- 1"-2" (25-51 mm) 7" (178 mm)

Chain Suspension

ChefLED bulb 120V only (U.S., Canada only) GRAL-xxD must be 15" or higher from surface, GRAHL-xxD must be 18" or higher from surface

- 2700 Warm light 3000 Warm Light 4000 Cool Light



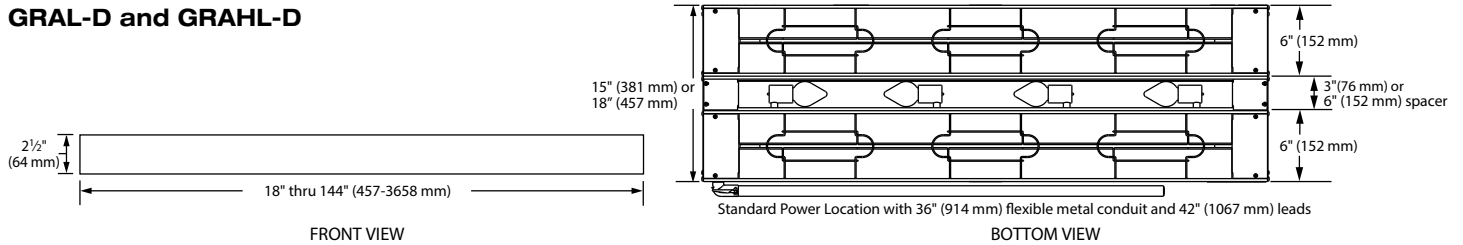


Glo-Ray® Dual Aluminum Infrared Strip Heaters with Lights

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High Watt: GRAHL-18D, -24D, -30D, -36D, -42D, -48D, -54D, -60D, -66D, -72D, -84D, -96D, -108D, -120D, -132D, -144D

GRAL-D and GRAHL-D



SPECIFICATIONS

Glo-Ray® Dual Aluminum Infrared Strip Heaters with Lights

Dimensions: with 3" (76 mm) Spacer: 18" - 144" W x 15" D x 2.5" H (457 - 3658 x 381 x 64 mm)
with 6" (152 mm) Spacer: 18" - 144" W x 18" D x 2.5" H (457 - 3658 x 457 x 64 mm)

Shaded areas contain electrical information for international models only.

Standard Watt					High Watt					Both Models				
Model	Volts	Watts	Amps	Ship Weight*	Model	Volts	Watts	Amps	Ship Weight*	Phase	Width			
GRAL-18D	120	620	5.2	14 lbs. (7 kg.)	GRAHL-18D	120	820	6.8	14 lbs. (7 kg.)	Single	18" (457 mm)			
	120/208		3.4			4.4								
	120/240		3.1			3.9								
	200	546	2.7			200	731	3.7		220		801	3.6	Single
	220	601	2.7			220-230 (CE)*	600-656	2.7-2.9		220-230 (CE)*		800-874	3.6-3.8	
	220-230 (CE)*	600-656	2.7-2.9			230-240 (CE)*	569-620	2.5-2.6		230-240 (CE)*		753-820	3.3-3.4	
	230-240 (CE)*	569-620	2.5-2.6			240	620	2.6		240		820	3.4	
240	620	2.6												
GRAL-24D	120	820	6.8	16 lbs. (8 kg.)	GRAHL-24D	120	1120	9.3	16 lbs. (8 kg.)	Single	24" (610 mm)			
	120/208		4.4			5.8								
	120/240		3.9			5.2								
	200	731	3.7			200	1008	5.0		220		1101	5.0	Single
	220	801	3.6			220-230 (CE)*	800-874	3.6-3.8		220-230 (CE)*		1100-1202	5.0-5.2	
	220-230 (CE)*	800-874	3.6-3.8			230-240 (CE)*	753-820	3.3-3.4		230-240 (CE)*		1029-1120	4.5-4.7	
	230-240 (CE)*	753-820	3.3-3.4			240	820	3.4		240		1120	4.7	
240	820	3.4												
GRAL-30D	120	1020	8.5	18 lbs. (9 kg.)	GRAHL-30D	120	1440	12.0	18 lbs. (9 kg.)	Single	30" (762 mm)			
	120/208		5.3			7.3								
	120/240		4.8			6.5								
	200	915	4.6			200	1304	6.5		220		1421	6.4	Single
	220	1001	4.5			220-230 (CE)*	1000-1093	4.5-4.8		220-230 (CE)*		1420-1552	6.4-6.7	
	220-230 (CE)*	1000-1093	4.5-4.8			230-240 (CE)*	937-1020	4.1-4.3		230-240 (CE)*		1323-1440	5.8-6.0	
	230-240 (CE)*	937-1020	4.1-4.3			240	1020	4.3		240		1440	6.0	
240	1020	4.3												
GRAL-36D	120	1330	11.1	21 lbs. (10 kg.)	GRAHL-36D*	120	1780	14.8	21 lbs. (10 kg.)	Single	36" (914 mm)			
	120/208		7.0			9.2								
	120/240		6.3			8.2								
	200	1188	5.9			200	1604	8.0		220		1751	8.0	Single
	220	1301	5.9			220-230 (CE)*	1300-1421	5.9-6.2		220-230 (CE)*		1750-1913	8.0-8.3	
	220-230 (CE)*	1300-1421	5.9-6.2			230-240 (CE)*	1221-1330	5.3-5.5		230-240 (CE)*		1635-1780	7.1-7.4	
	230-240 (CE)*	1221-1330	5.3-5.5			240	1330	5.5		240		1780	7.4	
240	1330	5.5												
GRAL-42D	120	1530	12.8	26 lbs. (12 kg.)	GRAHL-42D*	120	2080	17.3	26 lbs. (12 kg.)	Single	42" (1067 mm)			
	120/208		8.0			10.6								
	120/240		7.1			9.4								
	200	1373	6.9			200	1882	9.4		220		2051	9.3	Single
	220	1501	6.8			220-230 (CE)*	1500-1640	6.8-7.1		220-230 (CE)*		2050-2240	9.3-9.7	
	220-230 (CE)*	1500-1640	6.8-7.1			230-240 (CE)*	1405-1530	6.1-6.4		230-240 (CE)*		1910-2080	8.3-8.7	
	230-240 (CE)*	1405-1530	6.1-6.4			240	1530	6.4		240		2080	8.7	
240	1530	6.4												
GRAL-48D*	120	1840	15.3	30 lbs. (14 kg.)	GRAHL-48D*	120	2440	20.3	30 lbs. (14 kg.)	Single	48" (1219 mm)			
	120/208		9.7			12.6								
	120/240		8.7			11.2								
	200	1646	8.2			200	2201	11.0		220		2402	10.9	Single
	220	1802	8.2			220-230 (CE)*	1800-1967	8.2-8.6		220-230 (CE)*		2400-2623	10.9-11.4	
	220-230 (CE)*	1800-1967	8.2-8.6			230-240 (CE)*	1690-1840	7.3-7.7		230-240 (CE)*		2241-2440	9.7-10.2	
	230-240 (CE)*	1690-1840	7.3-7.7			240	1840	7.7		240		2440	10.2	
240	1840	7.7												

* Shipping weight includes packaging, and does not include RMB.
 ♦ CE approved units for 220-230V utilize a 220V heating system; 230-240V CE units utilize a 240V heating system.
 ■ 120V models may require additional switches, (remote only) consult factory for applications.

NOTE: GRAL-D and GRAHL-D models that have multiple voltages listed, such as 120/208 or 120/240 have multiple circuits. For example, a 120/208V unit utilizes 120V for the light circuit and 208V for the heat circuit(s). Consult the electrical diagram supplied with the unit for specific information.

CAUTION: Strip heaters equipped with incandescent lights that require a circuit breaker larger than 20 amps for the heat element must have a separate circuit breaker for the incandescent lights that is 20 amps or less.



Glo-Ray® Dual Aluminum Infrared Strip Heaters with Lights

Standard Watt: GRAL -18D, -24D, -30D, -36D, -42D, -48D, -54D, -60D, -66D, -72D, -84D, -96D, -108D, -120D, -132D, -144D

High Watt: GRAHL-18D, -24D, -30D, -36D, -42D, -48D, -54D, -60D, -66D, -72D, -84D, -96D, -108D, -120D, -132D, -144D

SPECIFICATIONS

Glo-Ray® Dual Aluminum Infrared Strip Heaters with Lights

Dimensions: with 3" (76 mm) Spacer: 18" - 144" W x 15" D x 2.5" H (457 - 3658 x 381 x 64 mm)

with 6" (152 mm) Spacer: 18" - 144" W x 18" D x 2.5" H (457 - 3658 x 457 x 64 mm)

■ Shaded areas contain electrical information for international models only.

Standard Watt				High Watt				Both Models			
Model	Volts	Watt	Amps	Ship Weight*	Model	Volts	Watt	Amps	Ship Weight*	Phase	Width
GRAL-54D ■	120	2090	17.4	34 lbs. (16 kg.)	GRAHL-54D ■	120	2740	22.8	30 lbs. (14 kg.)	Single	54" (1372 mm)
	120/208		10.9			14.0					
	120/240		9.7			12.4					
	200	1877	9.4			200	2478	12.4			
	220	2052	9.3			220	2702	12.3			
	220-230 (CE)*	2050-2240	9.3-9.7			220-230 (CE)*	2700-2951	12.3-12.8			
	230-240 (CE)*	1919-2090	8.3-8.7			230-240 (CE)*	2516-2740	10.9-11.4			
240	2090	8.7	240	2740	11.4						
GRAL-60D ■	120	2400	20.0	35 lbs. (16 kg.)	GRAHL-60D ■	120	3100	25.8	35 lbs. (16 kg.)	Single	60" (1524 mm)
	120/208		12.6			16.0					
	120/240		11.3			14.2					
	200	2150	10.8			200	2797	14.0			
	220	2352	10.7			220	3052	13.9			
	220-230 (CE)*	2350-2569	10.7-11.2			220-230 (CE)*	3050-3334	13.9-14.5			
	230-240 (CE)*	2204-2400	9.6-10.0			230-240 (CE)*	2847-3100	12.4-12.9			
240	2400	10.0	240	3100	12.9						
GRAL-66D ■	120	2620	21.8	37 lbs. (17 kg.)	GRAHL-66D ■	120	3420	28.5	37 lbs. (17 kg.)	Single	66" (1676 mm)
	120/208		13.7			17.5					
	120/240		12.2			15.5					
	200	2353	11.8			200	3093	15.5			
	220	2572	11.7			220	3372	15.3			
	220-230 (CE)*	2570-2809	11.7-12.2			220-230 (CE)*	3370-3683	15.3-16.0			
	230-240 (CE)*	2406-2620	10.5-11.0			230-240 (CE)*	3141-3420	13.7-14.3			
240	2620	10.9	240	3420	14.3						
GRAL-72D ■	120	2910	24.3	41 lbs. (19 kg.)	GRAHL-72D ■	120	3810	31.8	41 lbs. (19 kg.)	Single	72" (1829 mm)
	120/208		15.3			19.6					
	120/240		13.6			17.4					
	200	2608	13.0			200	3440	17.2			
	220	2853	13.0			220	3753	17.1			
	220-230 (CE)*	2850-3115	13.0-13.5			220-230 (CE)*	3753-4101	17.1-17.8			
	230-240 (CE)*	2673-2910	11.6-12.1			230-240 (CE)*	3499-3810	15.2-15.9			
240	2910	12.1	240	3810	15.9						
GRAL-84D ■	120	3420	28.5	50 lbs. (23 kg.)	GRAHL-84D ■	120	4520	37.7	50 lbs. (23 kg.)	Single	84" (2134 mm)
	120/208		17.9			23.2					
	120/240		16.0			20.6					
	200	3065	15.3			200	4082	20.4			
	220	3353	15.2			220	4453	20.2			
	220-230 (CE)*	3350-3662	15.2-15.9			220-230 (CE)*	4453-4867	20.2-21.2			
	230-240 (CE)*	3141-3420	13.7-14.3			230-240 (CE)*	4151-4520	18.0-18.8			
240	3420	14.3	240	4520	18.8						
GRAL-96D ■	120	3930	32.8	56 lbs. (24 kg.)	GRAHL-96D ■	120	5280	44.0	54 lbs. (25 kg.)	Single	96" (2438 mm)
	120/208		20.6			27.1					
	120/240		18.4			24.0					
	200	3523	17.6			200	4771	23.9			
	220	3853	17.5			220	5203	23.7			
	220-230 (CE)*	3853-4212	17.5-18.3			220-230 (CE)*	5203-5687	23.7-24.7			
	230-240 (CE)*	3609-3930	15.7-16.4			230-240 (CE)*	4849-5280	21.1-22.0			
240	3930	16.4	240	5280	22.0						
GRAL-108D ■	120	4240	35.3	59 lbs. (27 kg.)	GRAHL-108D ■	120	5540	46.2	59 lbs. (27 kg.)	Single	108" (2743 mm)
	120/208		22.3			28.5					
	120/240		19.9			25.3					
	220	4154	18.9			220	5454	24.8			
	220-230	4154-4540	18.9-19.7			220-230	5454-5961	24.8-26.0			
	230-240	3894-4240	16.9-17.7			230-240	5088-5540	22.1-23.1			
	240	4240	17.7			240	5540	23.1			
GRAL-120D ■	120	4800	40	66 lbs. (30 kg.)	GRAHL-120D ■	120	6200	51.7	66 lbs. (30 kg.)	Single	120" (3048 mm)
	120/208		25.2			31.9					
	120/240		22.5			28.3					
	220	4704	21.4			220	6104	27.7			
	220-230	4704-5742	21.4-25.0			220-230	6104-6672	27.7-29.0			
	230-240	4408-4800	19.2-20.0			230-240	5694-6200	24.8-25.8			
	240	4800	20.0			240	6200	25.8			

* Shipping weight includes packaging, and does not include RMB.

■ 120V models may require additional switches, (remote only) consult factory for applications.

• CE approved units for 220-230V utilize a 220V heating system; 230-240V CE units utilize a 240V heating system.

• 120V models with infinite switch require tandem (end-to-end) elements, consult factory for applications.

◇ Glo-Ray models 108"-144" (2743-3658 mm) and 120V models of GRAH(L)-84 and GRAH(L)-96 contain tandem (end-to-end) elements that may be individually controlled.

▲ Must order Remote Control Enclosure.

▽ Available with RMB or remote switch only.

NOTE: GRAL-D and GRAHL-D models that have multiple voltages listed, such as 120/208 or 120/240 have multiple circuits.

For example, a 120/208V unit utilizes 120V for the light circuit and 208V for the heat circuit(s). Consult the electrical diagram supplied with the unit for specific information.

CAUTION: Strip heaters equipped with incandescent lights that require a circuit breaker larger than 20 amps for the heat element must have a separate circuit breaker for the incandescent lights that is 20 amps or less.



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High Watt: GRAHL-18D, -24D, -30D, -36D, -42D, -48D, -54D, -60D, -66D, -72D, -84D, -96D, -108D, -120D, -132D, -144D

SPECIFICATIONS

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with 6" (152 mm) Spacer: 18" - 144" W x 18" D x 2.5" H (457 - 3658 x 457 x 64 mm)

Shaded areas contain electrical information for international models only.

Standard Watt					High Watt					Both Models		
Model	Volts	Watt	Amps	Ship Weight*	Model	Volts	Watt	Amps	Ship Weight*	Phase	Width	
GRAL-132D ◀▶	120	5300	44.2	73 lbs. (34 kg.)	GRAHL-132D ◀▶	-	6900	-	73 lbs. (34 kg.)	Single	132" (3353 mm)	
	120/208		27.8			120/208		35.5				
	120/240		24.8			120/240		31.5				
	220	5195	23.6			220	6795	30.9		Single		
	220-230	5195-5678	23.6-24.7			220-230	6795-7426	30.9-32.3				
	230-240	4868-5300	21.2-22.1			230-240	6337-6900	27.6-28.8				
	240	5300	22.1			240	6900	28.8				
GRAL-144D ◀▶	120	5820	48.5	80 lbs. (37 kg.)	GRAHL-144D ◀▶	-	7620	-	80 lbs. (37 kg.)	Single		144" (3658 mm)
	120/208		30.5			120/208		39.2				
	120/240		27.3			120/240		34.8				
	220	5705	25.9			220	7505	34.1		Single		
	220-230	5705-6235	25.9-27.1			220-230	7505-8203	34.1-35.7				
	230-240	5345-5820	23.2-24.3			230-240	6998-7620	30.4-31.8				
	240	5820	24.3			240	7620	31.8				

- * Shipping weight includes packaging, and does not include RMB.
- ▶ 120V models may require additional switches, (remote only) consult factory for applications.
- ◀ CE approved units for 220-230V utilize a 220V heating system; 230-240V CE units utilize a 240V heating system.
- ◀▶ 120V models with infinite switch require tandem (end-to-end) elements, consult factory for applications.
- ◀▶ Glo-Ray models 108"-144" (2743-3658 mm) and 120V models of GRAH(L)-84 and GRAH(L)-96 contain tandem (end-to-end) elements that may be individually controlled.
- ▲ Must order Remote Control Enclosure.
- ▶ Available with RMB or remote switch only.

NOTE: GRAL-D and GRAHL-D models that have multiple voltages listed, such as 120/208 or 120/240 have multiple circuits. For example, a 120/208V unit utilizes 120V for the light circuit and 208V for the heat circuit(s). Consult the electrical diagram supplied with the unit for specific information.

CAUTION: Strip heaters equipped with incandescent lights that require a circuit breaker larger than 20 amps for the heat element must have a separate circuit breaker for the incandescent lights that is 20 amps or less.

AMPS

Amps on all models vary based on configuration – please consult factory.

TOGGLE SWITCH

Amps: Max. 15 amps. Location: Chef's left side.

INFINITE SWITCH

Max. 12.2 amps

LEADS

US/Canada: 3' (914 mm) conduit with leads (standard on 120, 120/208 and 120/240 models only) and 6" (152 mm) leads – server's right.

Euro/UK: 6" (152 mm) pigtail leads with no conduit – servers right.

RECOMMENDED MOUNTING HEIGHTS

(Refer to the Installation section of the Manual on the Hatco website)

Standard Watt: 10"-14" (254-356 mm)

High Watt: 14"-18" (356-457 mm)

MINIMUM CLEARANCES

Combustibles

Can not be installed in combustible surroundings

Non-Combustibles

Dual Units with Built-In Switches

Unit to surface below: 10" (254 mm).

Must be installed in pass through area, back wall installation not allowed

Below oversheaf: 1" (25 mm) clearance

Dual Units with Remote Switches:

Unit to surface below: 8" (203 mm)

Unit to wall: 3" (76 mm)

Below oversheaf: 0" (0 mm) clearance, can be flush to an oversheaf.

REMOTE CONTROL ENCLOSURES

Must order one RMB control box per Strip Heater - If RMB2 is used, multiple warmers can be controlled from one box. For more details, see "Choose Remote Box" section listed under "Resources" on the Hatco website, www.hatcocorp.com

Model	Width	Toggle Switches
RMB-3	6"(150 mm)	2 maximum
RMB-7	9.375" (239 mm)	4 maximum
RMB-14	14.375" (366 mm)	6 maximum
RMB-16	16.375" (417 mm)	3 maximum
RMB-20	20.375" (518 mm)	4 maximum
RMB2-1R	11" (279 mm)	1 toggle, 1 infinite, 1 relay, 1 indicator light
RMB2-2R	14" (356 mm)	1 toggle, 1 infinite, 2 relays, 1 indicator light



RMB-7L
with infinite control



RMB-7D
with optional Designer color



RMB-3F
with toggle switch
and indicator light

PRODUCT SPECS

Dual Infrared Foodwarmers

The Dual Aluminum Infrared Foodwarmer with lights shall be a Glo-Ray®, manufactured by the Hatco Corporation, Milwaukee, WI 53234 U.S.A.

The Foodwarmer shall be a Glo-Ray Model ... , rated at ... watts, ... volts, single phase, and be ... inches (millimeters) in overall width. The Glo-Ray shall consist of an aluminum housing and include four shelf mounting tabs.

The infrared heating element shall be tubular metal sheathed. The foodwarmer shall be ready for electrical installation. Options and accessories shall include adjustable or non-adjustable tubular stand, angle brackets, suspension chain and fittings, sneeze guard, and indicator light.

Warranty consists of 24/7 parts and service assistance (U.S. and Canada only).

HATCO CORPORATION

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