



ELECTRIC WATER HEATING



# [ CHOICES ]

...THROUGH CUSTOMERIZATION



*Unique Needs, Exact Solutions.*



## #1 IN QUALITY AND RELIABILITY

When it comes to foodservice sanitation, no one can afford to take risks. When it comes to selecting a hot water booster heater for your dishwasher, Hatco is the best choice you can make.

- *Over 60 years as the proven industry leader, providing foodservice operators with Booster Water Heaters that are essential to clean and sanitize dishware.*
- *Castone® lined steel tanks are non-toxic and non-corrosive, meeting and exceeding NSF standards, and include a full 10-year warranty.*
- *Lifetime warranty against perforation on the heavy-duty stainless steel front panel and the hammertone (powdercoated steel) jacket and base.*
- *Utilization of exclusive multi-element design and the lower watt density (watts per square inch) provide maximum element life and increased reliability.*
- *Ambient compensating thermostats accurately maintain the water rinse temperature in any dishroom environment.*
- *Heavy-duty four-bolt flanges and flat fiber gaskets provide elements with an extremely reliable seal to the tank, and are also easy to service.*



800.558.0607  
www.hatcocorp.com



## #1 IN PERFORMANCE

- *Over 100 Imperial and Compact models and configurations* available to ensure that your booster water heater is perfectly sized to match with your warewasher. (Models from 4kW to 57kW)
- *Complete confidence* that 180°F (82°C) sanitizing rinse water is always available when you need it to kill dangerous bacteria and remove unsightly residue from dishware.
- *Step Loading – a Hatco exclusive!* Large Imperial models offer three banks of elements with separate thermostats for each bank. The multiple thermostats provide step loading for quick response to peak dishwashing demands while conserving energy and reducing cost.
- Every Hatco Booster Water Heater is internally pre-plumbed, pre-wired, individually calibrated for low-temp or high temp applications, and *fully factory-tested* to our rigid quality control standards.
- *Enhanced low-water probe design* that is more resistant to false signals due to liming.
- *Time delay low-water cut-off* eliminates chattering of contactor controls and increases component life.

## #1 IN SERVICE AND DELIVERY

- *Quick-Ship inventory* – dozens of models available for immediate shipment, all of the time. When your warewasher goes down – you need help NOW! With Hatco's Midwest manufacturing location, we can quickly ship coast-to-coast and at the best rates available.
- *Personalized customer service.* Hatco prides itself on being easy to do business with and we strive for 100% customer satisfaction. An established network of Sales Representatives, Dealers, Distributors, and Service Agencies ensure customer care is available anywhere in the world.
- *24/7 service* assistance in U.S. and Canada. Hatco's 24/7 factory support is backed by a network of over 500 authorized Service Agents and more than 90 Parts Distributors in the U.S.A. and Canada.
- *An industry-leading warranty* that offers "bumper-to-bumper" coverage for the first year, a ten-year tank warranty and lifetime coverage on the jacket, front cover, and base.
- All Hatco Booster Heaters are *UL, NSF, and cUL or CSA approved.* Many Compact models are also CE approved.

*Other booster manufacturers may try to imitate Hatco, but only a Hatco booster heater provides the most cost-effective solutions to hot water sanitizing, while keeping the highest quality paramount. Our commitment to excellence is supported by our decades of proven reliability as the brand you can trust.*

*If you buy, sell, or specify a dishware sanitizing system, choose the best hot water booster available... choose Hatco.*



Unique Needs, Exact Solutions.



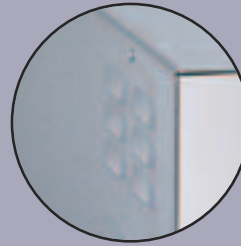


**GIVE YOUR OPERATION  
A REALLY BIG BOOST.**

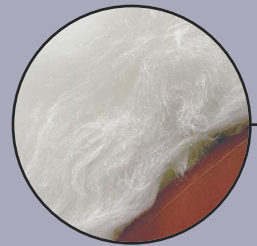
**IMPERIAL...** Hatco's largest electric booster water heater provides up to 573 gph (2169 lph) of hot sanitizing rinse water at 40°F (22°C) rise. Models are available from 6kW to 57kW with a storage capacity of 16 gallons (60 liters). All models feature the exclusive Hatco Castone® tank, low-water cut-off to prevent element burnout, temperature/pressure relief valve, cast iron pressure reducing valve, two temperature/pressure gauges, indicator light, and on/off switch. Options available include stainless steel body and base, blended phosphate water treatment system, shock absorber to prevent water hammer, brass pressure reducing valve, stainless steel adjustable legs, and deck mounting legs. The Choice is Yours.



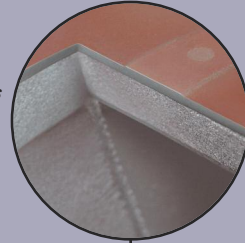
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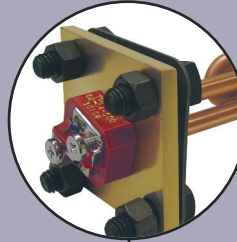
*Rugged cabinet construction to withstand dishroom abuse.*



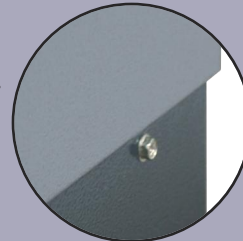
*Thick energy-saving insulation minimizes heat loss.*



*Castone® lined steel tank with 10-year parts warranty – non-toxic and non-corrosive.*



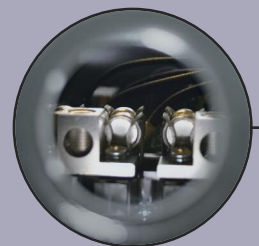
*Metal sheathed heating elements with four-bolt flange provides water tight seal to tank. Replaceable with common tools.*



*Powdercoated body and base with lifetime perforation warranty.*

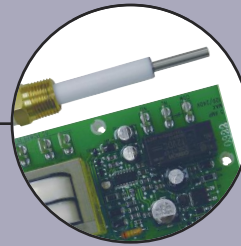
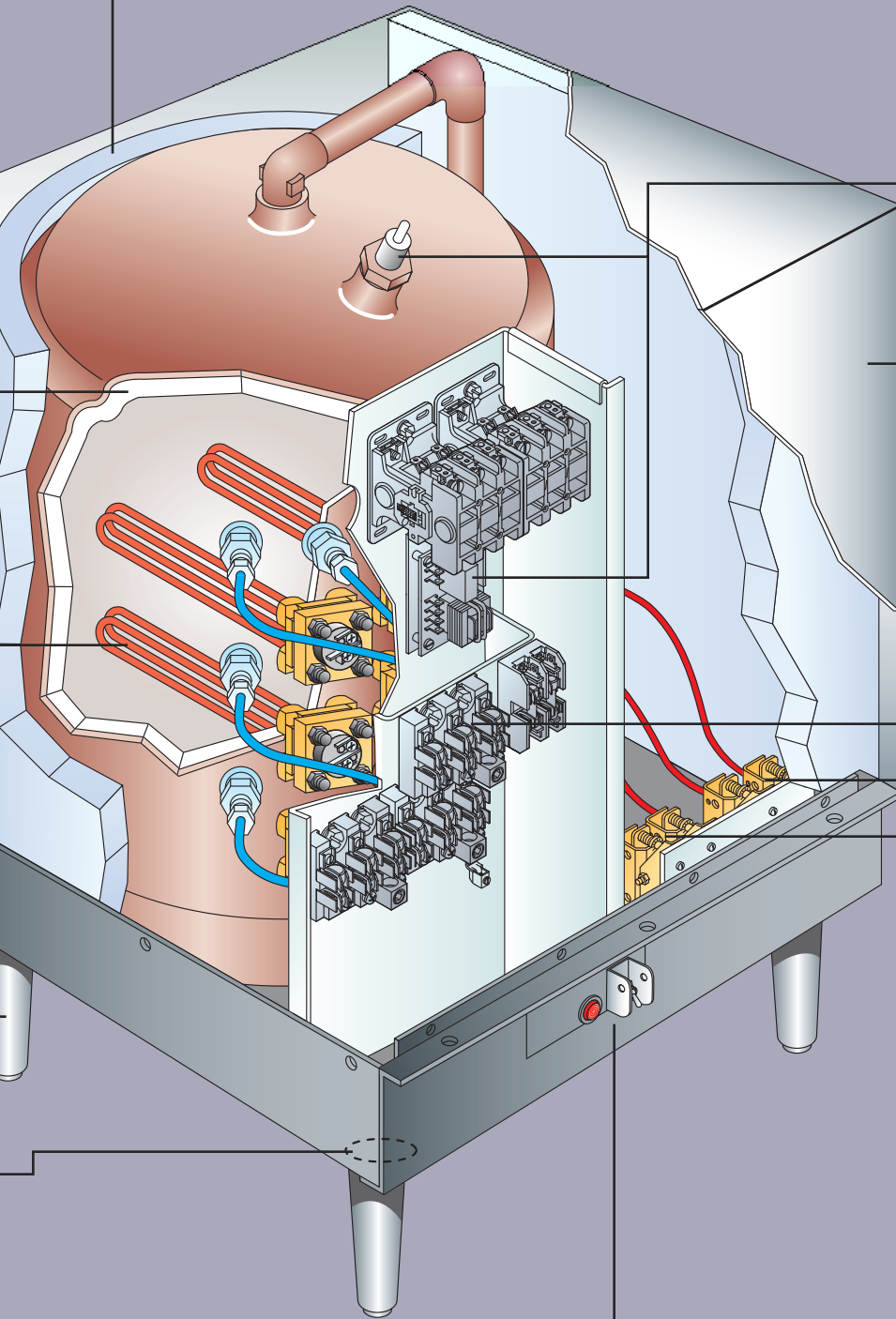


*Heavy-duty 6" (152 mm) adjustable legs accommodate uneven dishroom floors.*

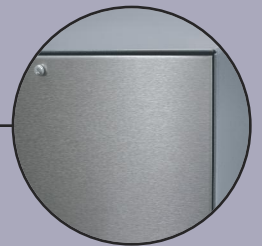


*Power connection through trade size knockouts.*

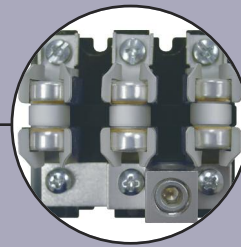
# IMPERIAL BOOSTER WATER HEATER



*Time delay low-water cut-off system prevents element burnout.*



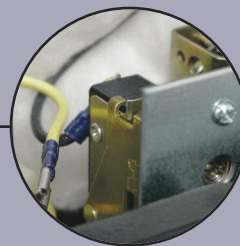
*Stainless steel front cover with drip-proof design.*



*Over current circuit protection when required.*



*Easy access to resettable safety high limit control.*



*Factory pre-set ambient compensating thermostats maintain accurate water rinse temperature in any dishroom environment.\**



*Indicator light shows operator when booster is in operation. On/off toggle switch enables booster to be turned off in periods of non-use.*

*\*24kW and larger Imperial models feature Hatco's exclusive Step Loading. Three banks of elements with separate thermostats for each bank provide a quick response for peak dishwashing demands.*

Unique Needs, Exact Solutions.

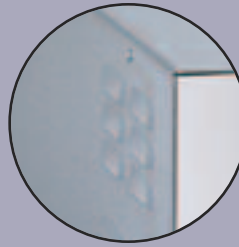




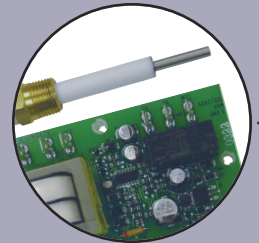


**OUR COMPACT MODELS  
WILL FIT RIGHT IN.**

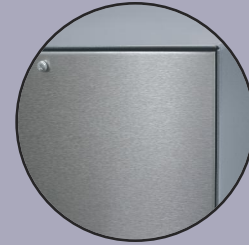
**COMPACT...** space-saving models easily fit under a dishtable or on the floor next to the dishwasher. Available in sizes ranging from 4kW to 57kW with a storage capacity of 6 gallons (23 liters). Features include the exclusive Hatco Castone® tank, low-water cut-off to prevent element burnout, temperature/pressure relief valve, cast iron pressure reducing valve, two temperature/pressure gauges, indicator light, and on/off switch. Options available include slide brackets for mounting under a dishtable, stainless steel body and base, blended phosphate water treatment system, shock absorber to prevent water hammer, brass pressure reducing valve, stainless steel adjustable legs, and deck mounting legs. The Choice is Yours.



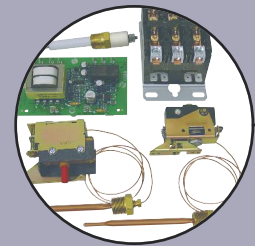
*Rugged cabinet construction to withstand dishroom abuse.*



*Time delay low-water cut-off system prevents element burnout.*



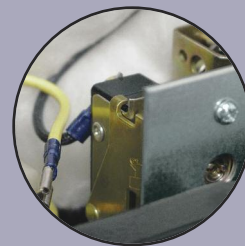
*Stainless steel front cover with drip-proof design.*



*Individual controls (thermostat, high limit, low-water cut-off system, contactors) provide low cost repairs in the event of a failure.*



*Indicator light shows operator when booster is in operation. On/off toggle switch enables booster to be turned off in periods of non-use.*

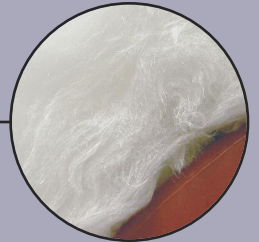
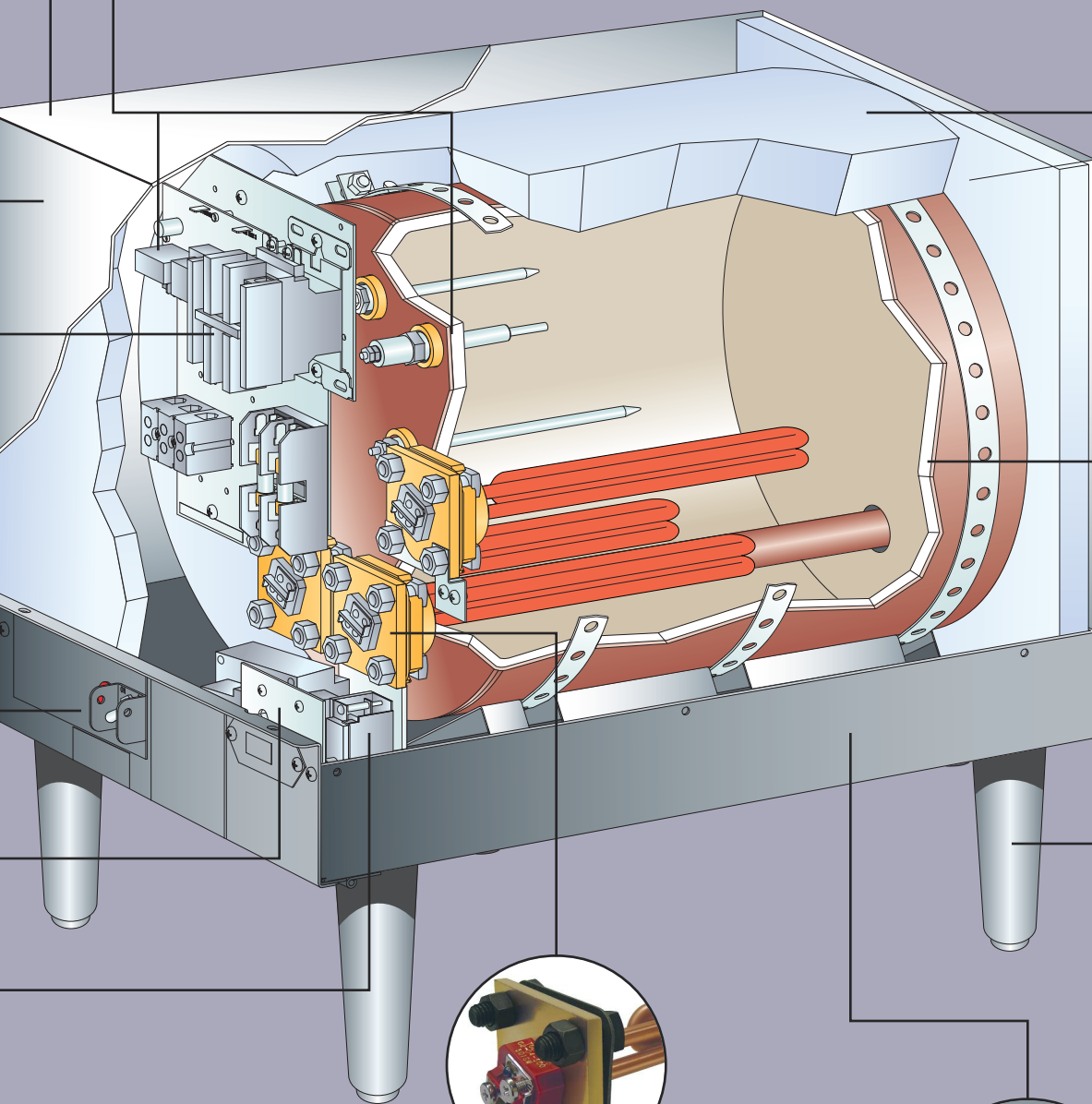


*Ambient compensated thermostat maintains accurate water rinse temperature in any dishroom environment.*

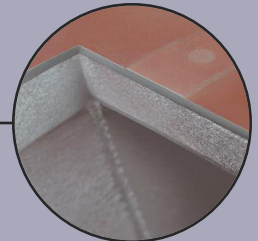


*Easy access to resettable safety high limit control.*

# COMPACT BOOSTER WATER HEATER



*Thick energy-saving insulation minimizes heat loss.*



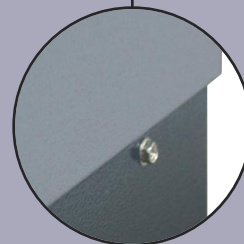
*Castone® lined steel tank with 10-year parts warranty – non-toxic and non-corrosive.*



*Heavy-duty 6" (152 mm) adjustable legs accommodate uneven dishroom floors.*



*Metal sheathed heating elements with four-bolt flange provides water tight seal to tank. Replaceable with common tools.*



*Powdercoated body and base with lifetime perforation warranty.*

Unique Needs, Exact Solutions.





## OUR MINI-COMPACT MODELS WILL FIT RIGHT IN.

MINI-COMPACT... a small speciality heater that can be installed almost anywhere. Ideal for either hot water sanitizing or point-of-use hot water dispensing. Available in two models: 10kW and 11kW, both with a storage capacity of 3.2 gallons (12 liters). Features include a stainless steel tank and fast recovery. Options include all stainless steel body and base, blended phosphate water treatment system, brass pressure reducing valve, stainless steel adjustable legs, and deck mounting legs. The Choice is Yours.

### THE QUALITY IS BUILT-IN THE FEATURES STAND OUT.

Just look at what you get inside a quality Hatco electric booster water heater. The standard features others make optional... the built-in quality others don't have. Engineered with your operation in mind, Imperial and Compact models include the exclusive Hatco Castone® tank with its standard 10-year tank part warranty and the low-water cut-off control, designed to prevent element burnout. Notice the rugged construction that includes an easy-access stainless steel front panel and hammertone powdercoated silver gray body. It all adds up to the most dependable long-life booster water heater you can buy... only from Hatco.

### ALL THE EXTRAS...



*Stainless Steel Body & Base provides extra durability and excellent corrosion resistance for years of dependable service.*



**Back Pressure Relief Valve –**  
*This valve relieves pressure when unit is heating, on models that a check valve is required on the supply line. To be plumbed over an open site drain.*



**Pressure Reducing Valve –**  
*This valve, with built-in by-pass, should be installed in the supply line to the booster to regulate and stabilize flow pressure to 20 psi (138kPa).*



**Stainless Steel Adjustable Legs –**  
*Adjustable from 6" to 7" (152 to 178 mm). Clean appearance and heavy-duty for long wear.*

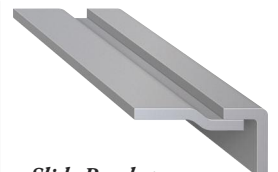
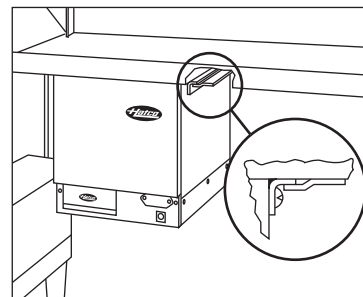


**Floor Mounting Hardware –**  
*6" (152 mm) corrosion-resistant stainless steel legs for deck mounting.*

**Shock Absorber – Recommended**  
*between the booster and the dishwasher, on all installations, to prevent water hammer.*



**Blended Phosphate Water Treatment System –**  
*Minimizes scale formation and increases unit efficiency. Recommended for Electric Boosters.*



**Slide Bracket –**  
*For mounting the booster heater under a dishable (available on small and large Compact models only).*

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# PLUMBING DATA

Dielectric couplings should be used in connecting dissimilar metals, such as galvanized to copper, to prevent electrolysis.

All Hatco Booster Water Heaters require ¾" piping.

A check valve should not be installed in the supply line to the booster heater.

All shut-off valves must be gate or ball valves – not globe valves.

## ELECTRICAL DATA

$$\frac{\text{GPH} \times \text{°F Temp. Rise}}{400} = \text{kW}$$

NOTE: GPH is gallons per hour.

$$\left( \frac{\text{LPH} \times \text{°C Temp. Rise}}{840} = \text{kW} \right)$$

(NOTE: LPH is liters per hour.)

**SEE BOOSTER HEATER SIZING CHART IN EQUIPMENT PRICE LIST.**

NOTE: When primary temperatures are less than 100°F (38°C) consult factory for suitable booster heater.

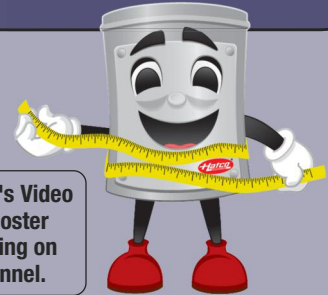
## ELECTRICAL FORMULAS

$$\frac{\text{Watts}}{\text{Volts}} = \text{Amps 1-phase}$$

$$\frac{\text{Watts} \times .86}{\text{Volts}} = \text{Amps 3-phase (open delta)}$$

$$\frac{\text{Watts}}{\text{Volts} \times 1.73} = \text{Amps 3-phase (balanced delta)}$$

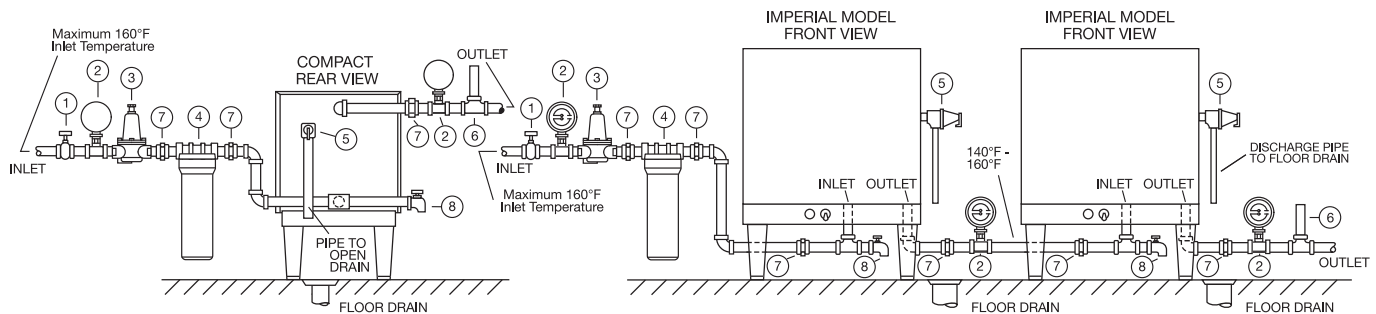
Check out Billy Booster's Video on "How to Size a Booster Water Heater" appearing on Hatco's YouTube channel.



## WATER TEMPERATURE RECOVERY TABLE IN GPH °F (LPH °C) RISE

kW	30°F (16°C)	40°F (22°C)	50°F (28°C)	60°F (33°C)	70°F (39°C)	80°F (44°C)	90°F (50°C)	100°F (55°C)
4	54 ( 204)	40 ( 151)	32 ( 121)	27 ( 102)	23 ( 87)	20 ( 76)	18 ( 68)	16 ( 61)
5	67 ( 254)	50 ( 189)	40 ( 151)	33 ( 125)	29 ( 110)	25 ( 95)	22 ( 83)	20 ( 76)
6	80 ( 303)	60 ( 227)	48 ( 182)	40 ( 151)	34 ( 129)	30 ( 114)	27 (102)	24 ( 91)
7	94 ( 356)	70 ( 265)	56 ( 212)	47 ( 178)	40 ( 151)	35 ( 133)	31 (117)	28 (106)
9	120 ( 454)	90 ( 341)	72 ( 273)	60 ( 227)	52 ( 197)	45 ( 170)	40 (151)	36 (136)
9.9	132 ( 500)	99 ( 375)	79 ( 299)	66 ( 250)	57 ( 216)	50 ( 189)	44 (167)	40 (151)
10.5	140 ( 530)	105 ( 398)	84 ( 318)	70 ( 265)	60 ( 227)	53 ( 201)	47 (178)	42 (159)
11.4	153 ( 581)	114 ( 433)	92 ( 350)	76 ( 289)	65 ( 247)	57 ( 217)	51 (194)	46 (175)
12	161 ( 610)	120 ( 454)	96 ( 363)	80 ( 303)	69 ( 261)	60 ( 227)	54 (204)	48 (182)
13.5	181 ( 685)	135 ( 511)	108 ( 409)	90 ( 341)	77 ( 292)	68 ( 257)	60 (227)	54 (204)
15	201 ( 761)	151 ( 572)	120 ( 454)	100 ( 379)	86 ( 326)	75 ( 284)	67 (254)	60 (227)
17.25	231 ( 874)	173 ( 655)	139 ( 526)	115 ( 435)	99 ( 375)	87 ( 329)	77 (292)	69 (261)
18	241 ( 912)	181 ( 685)	145 ( 549)	120 ( 454)	103 ( 390)	90 ( 341)	80 (303)	72 (273)
24	321 (1215)	241 ( 912)	193 ( 731)	161 ( 610)	138 ( 522)	120 ( 454)	107 (405)	96 (363)
27	361 (1367)	271 (1026)	217 ( 821)	181 ( 685)	155 ( 587)	135 ( 511)	120 (454)	108 (409)
30	401 (1518)	301 (1139)	241 ( 912)	201 ( 761)	172 ( 651)	151 ( 572)	134 (507)	120 (454)
36	482 (1825)	361 (1367)	289 (1094)	241 ( 912)	206 ( 780)	181 ( 685)	161 (610)	145 (549)
39	522 (1976)	391 (1480)	1185 (313)	261 ( 988)	224 ( 848)	196 ( 742)	174 (659)	157 (594)
40.5	542 (2052)	407 (1541)	325 (1230)	271 (1026)	232 ( 878)	203 ( 768)	181 (685)	163 (617)
45	602 (2279)	452 (1711)	361 (1367)	301 (1139)	258 ( 977)	226 ( 856)	201 (761)	181 (685)
54	723 (2737)	542 (2052)	434 (1643)	361 (1367)	310 (1174)	271 (1026)	241 (912)	217 (821)
57	763 (2888)	573 (2169)	458 (1734)	381 (1442)	326 (1234)	286 (1083)	254 (963)	229 (867)

## BOOSTER INSTALLATION



- ① ¾" Gate or Ball Valve\*    ② Temperature/Pressure Gauge    ③ Pressure Reducing Valve with By-Pass    ④ Blended Phosphate Water Treatment System
- ⑤ Relief Valve (must have discharge pipe to floor drain)    ⑥ Shock Absorber    ⑦ Union\*    ⑧ Drain Pipe Valve\*    \*Supplied by installer

CONSULT LOCAL CODES

NOTE: The differential temperature between outlet and inlet temperatures should never be less than 20°F (11°C).

NOTE: Thermostat calibration, or adjustment, must be performed at time of installation and is excluded from warranty coverage. Thermostat adjustments for Low-Temp applications are the responsibility of the installer.

## WATER QUALITY REQUIREMENTS

Water supply in excess of 3.0 grains of hardness per gallon (GPG) (.75 grains of hardness per liter (GPL)) must be treated and softened before being used. Water containing over 3.0 GPG (.75 GPL) will decrease the efficiency and reduce the operating life of the unit.

NOTE: Product failure caused by liming or sediment buildup is not covered under warranty.

Unique Needs, Exact Solutions.



## 3CS2 HYDRO-HEATER SANITIZING SINK HEATERS

The patented Hatco 3CS2 Hydro-Heater concept features a tubular water chamber with heating elements uniquely wrapped outside the flow tube so elements do not come in contact with the water, eliminating sediment and lime buildup, resulting in longer life. An electronic controller with digital display maintains an accurate setpoint temperature.



3CS2-3 with optional auto-fill solenoid

### SIZING INFORMATION

For a Sink Heater: 2000 WATTS PER SQUARE FOOT of vessel top.

3CS2 Sink Heaters are sized based on 140°F (60°C) supply water with a 30 minute preheat period to reach the sanitizing temperature. Sink Heaters are mounted in the center of the third compartment sink with standard plumbing fittings provided. Two 2" (51 mm) diameter holes are required for these fittings and a full size template is provided to locate holes in the sink. The 3CS2 Sink Heater is easily attached to the plumbing fittings with self-contained unions.

## 3CS SANITIZING SINK HEATERS

Maintaining a continuous supply of sanitizing rinse water without taking up valuable space, the 3CS makes manual warewashing faster and more convenient. Drain may be plumbed to open-sight waste drain. A special 3CS Sink Heater is available for shipboard use under military spec. MiL-H-43895B.



3CS-9 with optional temperature monitor

### SIZING INFORMATION

For a Sink Heater: 2000 WATTS PER SQUARE FOOT of vessel top.

3CS Sink Heaters are sized based on 140°F (60°C) supply water with a 30 minute preheat period to reach the sanitizing temperature. Sink Heaters are mounted into the third compartment sink with standard plumbing fittings provided. Two 2" (51 mm) diameter holes are required for these fittings and a full size template is provided to locate holes in the sink. The 3CS Sink Heater is easily attached to the plumbing fittings with self-contained unions.

## FR2 HYDRO-HEATER FOOD RETHERMALIZER/BAIN-MARIE HEATERS

The patented Hatco FR2 Hydro-Heater concept features a tubular water chamber with heating elements uniquely wrapped outside the flow tube so elements do not come in contact with the water, eliminating sediment and lime buildup, resulting in longer life. An electronic controller with digital display maintains an accurate setpoint temperature.



FR2-3 with optional stainless steel body and base

### -sizing information

For a Bain-Marie or steam table: MINIMUM 750 WATTS PER SQUARE FOOT of vessel top.

For a Food Rethermalizer: MINIMUM 2000 WATTS PER SQUARE FOOT of vessel top.

Use one FR2 for a Bain-Marie up to 6' (1829 mm) long. Over 6' (1829 mm), minimum two required.

MUST BE INSTALLED WITH A PERFORATED WATER BAFFLE. This baffle is not supplied with heater. The FR2 should be positioned with no more than 3' (914 mm) on either side when mounted in holding vessel. Consult factory or installation manual for fabricating details.

## FR FOOD RETHERMALIZER BAIN-MARIE HEATERS

The Hatco FR is a Bain-Marie or food reconstitutor to heat or hold foods at safe temperatures between 140°F and 190°F (60°-88°C). All models are shipped factory assembled, pre-wired, and includes standard 2" (51 mm) stainless steel plumbing fittings for mounting into a holding tank. Drain may be plumbed to open-sight waste drain.



FR-9

### -sizing information

For a Bain-Marie or steam table: minimum 750 WATTS PER SQUARE FOOT of vessel top.

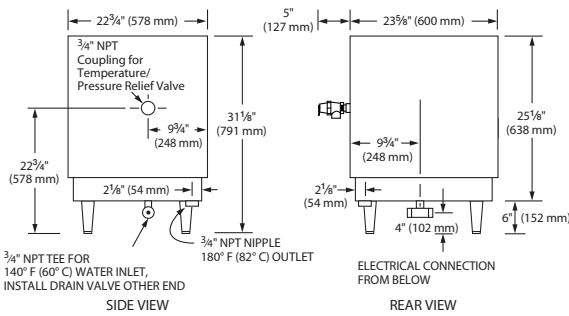
For a Food Rethermalizer: minimum 2000 WATTS PER SQUARE FOOT of vessel top.

Use one FR for a Bain-Marie up to 6' (1829 mm) long. Units over 6' (1829 mm) require a minimum of two FRs. (Tank Baffle supplied by installer.)



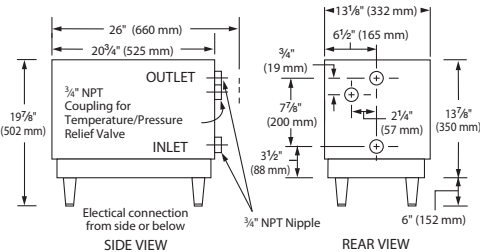
# ELECTRIC WATER HEATING SPECIFICATIONS

## IMPERIAL BOOSTER HEATER



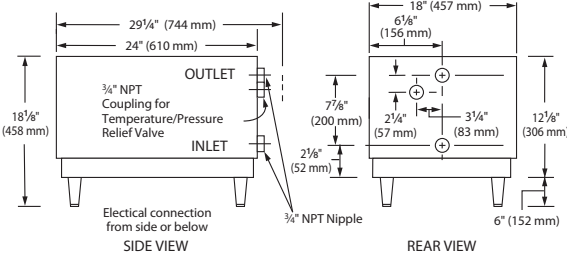
**VOLTAGE:** Available in 208, 240, and 480 volts. Export voltages available, consult factory.

## COMPACT (4-18kW) BOOSTER HEATER



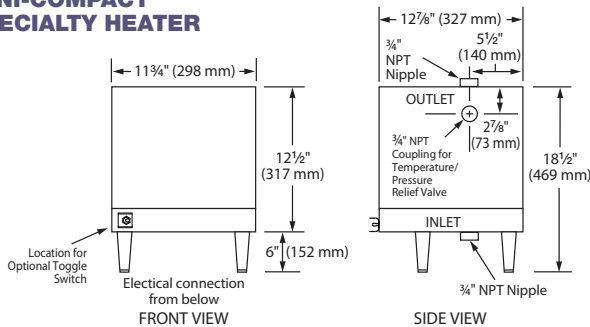
**VOLTAGE:** Available in 208, 240, and 480 volts. Export voltages available, consult factory.

## COMPACT (24-57kW) BOOSTER HEATER



**VOLTAGE:** Available in 208, 240, and 480 volts. Export voltages available, consult factory.

## MINI-COMPACT SPECIALTY HEATER



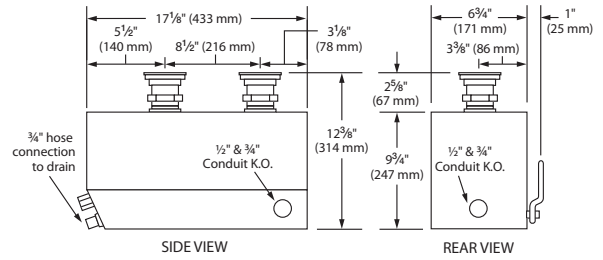
**VOLTAGE:** Available in 208, 240, and 480 volts.



**Nothing less than the best.™**

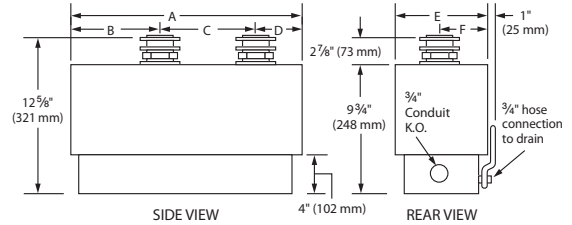
P.O. Box 340500  
Milwaukee, WI 53234-0500 U.S.A.  
(800) 558-0607 (414) 671-6350  
www.hatcocorp.com  
E-mail: equipmentsales@hatcocorp.com

## 3CS2 HYDRO-HEATER SANITIZING SINK HEATER



**VOLTAGE:** Available in 208 and 240 volts, 50/60 Hz. 480 volt and CSA wiring for Canada available. Export voltages available.

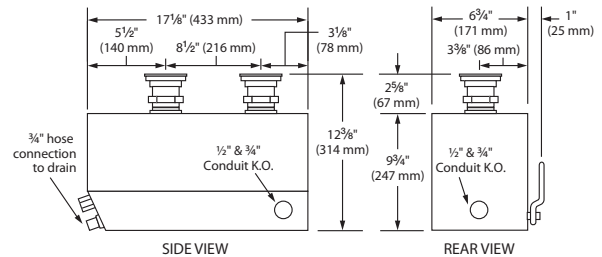
## 3CS THIRD COMPARTMENT SINK HEATER



Model	A	B	C	D	E	F
1- or 3-phase	16 7/8"	5 1/2"	8 1/2"	2 7/8"	6 3/4"	3 3/8"
	429 mm	140 mm	216 mm	73 mm	171 mm	86 mm
Bal. 3-phase	17 1/8"	4 5/8"	8 1/2"	4"	8"	4"
	435 mm	117 mm	216 mm	102 mm	203 mm	102 mm

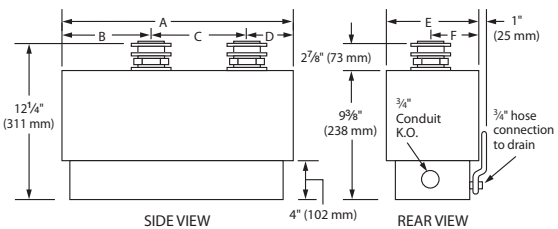
**VOLTAGE:** Available in 208 or 240 volts, 50/60 Hz standard.

## FR2 HYDRO-HEATER FOOD RETHERMALIZERS / BAIN-MARIE HEATER



**VOLTAGE:** Available in 208 and 240 volts, 50/60 Hz. 480 volt and CSA wiring for Canada available. Export voltages available.

## FR FOOD RETHERMALIZERS / BAIN-MARIE HEATER



Model	A	B	C	D	E	F
1- or 3-phase	16 7/8"	5 1/2"	8 1/2"	2 7/8"	6 3/4"	3 3/8"
	429 mm	140 mm	216 mm	73 mm	171 mm	86 mm
Bal. 3-phase	17 1/8"	4 5/8"	8 1/2"	4"	8"	4"
	435 mm	117 mm	216 mm	102 mm	203 mm	102 mm

**VOLTAGE:** Available in 208 or 240 volts, 50/60 Hz standard.

