Water Heater Solutions

Cafeterias • Convenience Stores
Supermarkets & Delis • Restaurants & Cafés
Clubs & Bars • Catering • Concessions

3CS-9B with optional temperature monitor
pg. 3

FR-9 *pg. 5*

PMG-100 *pg. 7*

PMG-200 with optional stainless steel body and
base, and accessory legs *pg. 7*

C-27 *pg. 9*

S-57 with optional stainless steel body and base,
and accessory stainless steel legs *pg. 11*

Atmospheric Hot Water Dispenser

At a simple push of a button, the Hatco Atmospheric Hot Water Dispenser delivers pre-measured quantities of hot water for food preparation or cleaning. The compact, durable design uses minimal counter space, while providing up to 8 gallons of continuous hot water. The removable shelf allows access to dispense water into larger containers.

- Quickly delivers 2, 3 or 4 quarts of hot water with the touch of a button
- Program can be interrupted for versatility and convenience
- Manual dispense button for additional water volume options
- 12 gallon stainless steel tank is emptied easily with convenient bottom drain

AWD-12 Pitcher not available

ATMOSPHERIC HOT WATER DISPENSER

Model	Dimensions W x D x H•	kW	Voltage	Phase	Plug	Ship Weight
AWD-12	13⅜" x 27½" x 28⅛"	5.0	208 or 240	1	NEMA 6-30P	78 lbs.

•Height includes 4" legs.

All Atmospheric Hot Water Dispenser Models Feature:
Models Shipped with: Low-water cut-off (LWCO), high temperature limit, electronic temperature controller and digital temperature display.
Distance between Shelf and Spout: 11¾".
Cord Location: Lower left corner on left side.

WATER QUALITY REQUIREMENTS – PAGE 18

OPTIONS *(available at time of purchase only)*

AWD-L6   NEMA L6-30P Locking Cap in lieu of NEMA 6-30P

ACCESSORIES *(available for purchase at any time)*

AWD-FILTER   Water Filtration Cartridge for Premium Quality Water (recommended filter change every 15,000 gallons). Incoming water must be 100°F (38°C) or less
AWD-PLUMB   3' Rubber Drain Hose with 10' ¼" Inlet Tubing

AWD-PLUMB Accessory

AWD-FILTER Accessory Provides a superior balance of chlorine, taste, and odor reduction. Inhibits limescale build-up.

A W D - 1 2
Atmospheric Water Dispenser   12 = Gallons

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) – consult factory for prices.

- Stainless steel front, powdercoated silver-gray hammertone body and convenient side drain
- Equipped with an Energy Cut-Off (ECO) for built-in protection against higher-than-normal water temperature
- An On/Off toggle switch with indicator light to indicate power status, and a red light to indicate the need to refill and reset the unit
- Meets NSF Standard of 180°F (82°C) for dish sanitizing

3CS-9 with optional temperature monitor

SANITIZING SINK HEATERS					
Model	kW	Sink Area	Voltage	Phase	Ship Weight
3CS-3	3.0	15" Sq. or less	208, 240, 480	1	24 lbs.
3CS-4	4.5	16"-18" Sq.	208, 240, 480	1	24 lbs.
3CS-6▸	6.0	19"-21" Sq.	208, 240, 480	1 or 3	26 lbs.
3CS-9▸	9.0	21"-25" Sq.	208, 240, 480	1 or 3	27 lbs.
3CS-3B	3.0	15" Sq. or less	208, 240, 480	Balanced 3	30 lbs.
3CS-4B	4.5	16"-18" Sq.	208, 240, 480	Balanced 3	30 lbs.
3CS-6B	6.0	19"-21" Sq.	208, 240, 480	Balanced 3	30 lbs.
3CS-9B	9.0	21"-25" Sq.	208, 240, 480	Balanced 3	33 lbs.

▸ Open delta on 3-phase. Larger circuit required than for balanced 3-phase of equal kW.

All Sanitizing Sink Heater Models Feature:
Dimensions 3CS-3, -4, -6, -9: 6¾"W x 16⅞"D x 12⅝"H.
   3CS-9 480V, 3CS-3B, -4B, -6B, -9B: 8"W x 17⅛"D x 12⅝"H.
Models Shipped with: Stainless steel front, silver gray hammertone body and black base.
3CS Heaters can be shipped FED-EX GROUND or United Parcel Service.

WATER QUALITY REQUIREMENTS – PAGE 18

OPTIONS (available at time of purchase only)

SSBB	All Stainless Steel Body and Base
TEMP MON*	Temperature Monitor (built-in)
TEMP LIGHT*	Temperature Light
CSA-WIRE	CSA Wiring (Canada only)
3CS-480V	480 Volt
FR-SECURITY	Security Package (Torx® Screws and Control Cover)
MIL-H-43895B	Shipboard Use

ACCESSORIES (available for purchase at any time)

|	
FR-FLUSH	Flush Hose, Stopper and Adapter

* Specify either monitor or light, not both.

FR-FLUSH Accessory

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

3CS Sink Heaters are sized based on 140°F 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" 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.

3 C S - X B
Three Compartment Sink
Balanced 3-Phase
Kilowatt rating
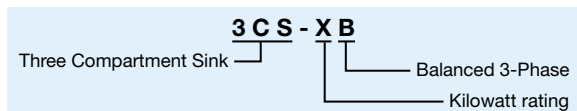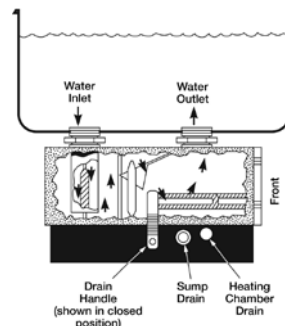
3CS2 Hydro-Heater Sanitizing Sink Heaters

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.

- Utilizes "free-flow" technology and advanced electronic controls to assure responsive and efficient operation
- Stainless steel front, powdercoated body, convenient drain outlet and clean-out caps

3CS2-3
with optional
auto-fill solenoid

HYDRO-HEATER SANITIZING SINK HEATERS

Model	kW	Dimensions W x D x H	Sink Area	Voltage	Phase	Ship Weight
3CS2-3	3	7¾" x 17⅛" x 12⅜"	15" Sq. or less	208, 240	1	31 lbs.
3CS2-4	4	7¾" x 17⅛" x 12⅜"	16"-18" Sq.	208, 240	1	31 lbs.
3CS2-6	6	7¾" x 17⅛" x 12⅜"	19"-21" Sq.	208, 240	1	31 lbs.
3CS2-3B	3	7¾" x 17⅛" x 12⅜"	15" Sq. or less	208, 240	Balanced 3	35 lbs.
3CS2-4B	4	7¾" x 17⅛" x 12⅜"	16"-18" Sq.	208, 240	Balanced 3	35 lbs.
3CS2-6B	6	7¾" x 17⅛" x 12⅜"	19"-21" Sq.	208, 240	Balanced 3	35 lbs.
3CS2-9B	9	7¾" x 17⅛" x 12⅜"	21"-25" Sq.	208, 240	Balanced 3	35 lbs.

All Hydro-Heater Sanitizing Sink Heater Models Feature:
Models Shipped with: Stainless steel front, powdercoated body, low-water cut-off (LWCO) and electronic temperature monitor.
3CS2 Heaters can be shipped FED-EX GROUND or United Parcel Service.

WATER QUALITY REQUIREMENTS – PAGE 18

OPTIONS (available at time of purchase only)

SSBODY	All Stainless Steel Body and Base
AUTOFILL	Auto-fill Solenoid
REMOTE	Remote Mounted Control
HH-SECURITY	Security Package (Torx® Screws and Control Cover)

ACCESSORIES (available for purchase at any time)

FR2-FLUSH	Flush Hose, Cleaning Brush, Stopper and Adapter

FR2-FLUSH Accessory

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

3CS2 Sink Heaters are sized based on 140°F 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" 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.

3 C S 2 - X B

Three Compartment Sink ⎯⎯
Hydro-Heater ⎯⎯
⎯⎯ Balanced 3-Phase
⎯⎯ Kilowatts
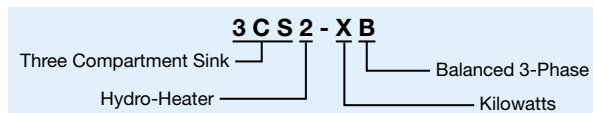
FR Food Rethermalizer Bain-Marie Heaters

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

- Equipped with an Energy Cut-Off (ECO) for built-in protection against higher-than-normal water temperature
- Stainless steel tank with five year limited warranty
- Optional low-water cut-off available to prevent element burn out from low-water conditions
- Separate sump and heating compartment drains for cleaning and sanitizing

FR-9

FOOD RETHERMALIZER/BAIN-MARIE HEATERS

Model	kW	Voltage	Phase	Ship Weight
FR-3	3.0	208, 240, 480	1	24 lbs.
FR-4	4.5	208, 240, 480	1	24 lbs.
FR-6'	6.0	208, 240, 480	1 or 3	27 lbs.
FR-9'	9.0	208, 240, 480	1 or 3	27 lbs.
FR-3B	3.0	208, 240, 480	Balanced 3	30 lbs.
FR-4B	4.5	208, 240, 480	Balanced 3	30 lbs.
FR-6B	6.8	208, 240, 480	Balanced 3	30 lbs.
FR-9B	9.0	208, 240, 480	Balanced 3	30 lbs.

' Open delta on 3-phase. Larger circuit required than for balanced 3-phase of equal kW.

All Food Rethermalizer/Bain-Marie Heater Models Feature:
Dimensions: FR-3, -4, -6, -9: 6¾"W x 16⅞"D x 12¼"H.
        FR Models with 480V and Low Water Cut-Off: 8"W x 17⅛"D x 12¼"H.
        FR-3B, -4B, -6B, -9B: 8"W x 17⅛"D x 12¼"H.
Models Shipped with: Stainless steel front, silver gray hammertone body and black base.
FR Heaters can be shipped FED-EX GROUND or United Parcel Service.

WATER QUALITY REQUIREMENTS – PAGE 18

OPTIONS (available at time of purchase only)

SSBB	All Stainless Steel Body and Base
W/LW	Low-Water Cut-Off
CSA-WIRE	CSA Wiring (Canada only – not available with Cord and Plug)
FR-480V	480 Volt
FR-SECURITY	Security Package (Torx® Screws and Control Cover)

ACCESSORIES (available for purchase at any time)

FR-FLUSH	Flush Hose, Stopper and Adapter

FR-FLUSH Accessory

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' long. Units over 6' require a minimum of two FRs. (Tank Baffle supplied by installer.)

Baffle

FR

F R - X B

Food Rethermalizer ——┘ └── Balanced 3-Phase
└── Kilowatts
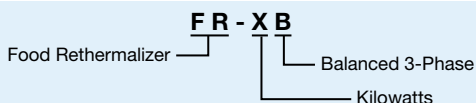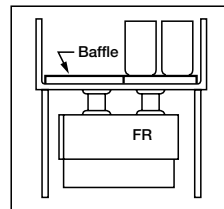
FR2 Hydro-Heater Food Rethermalizer/Bain-Marie Heaters

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.

- Utilizes "free-flow" technology and advanced electronic controls to assure responsive and efficient operation
- Stainless steel front, powdercoated body, convenient drain outlet and clean-out caps

FR2-3 with optional stainless steel body and base

HYDRO-HEATER FOOD RETHERMALIZER/BAIN-MARIE HEATERS

Model	Dimensions W x D x H	kW	Voltage 50/60Hz	Phase	Ship Weight
FR2-3	7¾" x 17⅛" x 12⅜"	3	208, 240	1	24 lbs.
FR2-4	7¾" x 17⅛" x 12⅜"	4	208, 240	1	24 lbs.
FR2-6	7¾" x 17⅛" x 12⅜"	6	208, 240	1	27 lbs.
FR2-3B	7¾" x 17⅛" x 12⅜"	3	208, 240	Balanced 3	24 lbs.
FR2-4B	7¾" x 17⅛" x 12⅜"	4	208, 240	Balanced 3	24 lbs.
FR2-6B	7¾" x 17⅛" x 12⅜"	6	208, 240	Balanced 3	27 lbs.
FR2-9B	7¾" x 17⅛" x 12⅜"	9	208, 240	Balanced 3	27 lbs.

All Food Rethermalizer Models Feature:
Models Shipped with: Stainless steel front, powdercoated body, low-water cut-off (LWCO) and electronic temperature monitor.
FR2 Heaters can be shipped FED-EX GROUND or United Parcel Service.

WATER QUALITY REQUIREMENTS – PAGE 18

OPTIONS (available at time of purchase only)

SSBODY	All Stainless Steel Body and Base
AUTOFILL	Auto-fill Solenoid
REMOTE	Remote Mounted Control
HH-SECURITY	Security Package (Torx® Screws and Control Cover)

ACCESSORIES (available for purchase at any time)

|	
FR2-FLUSH	Flush Hose, Cleaning Brush, Stopper and Adapter

FR2-FLUSH Accessory

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' long. Over 6', 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' on either side when mounted in holding vessel. Consult factory or installation manual for fabricating details.

F R 2 - X B

Food Rethermalizer
Hydro-Heater
Balanced 3-Phase
Kilowatts
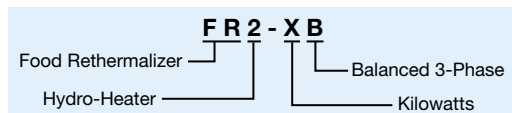
Powermite®
Gas Booster
Water Heaters

The Powermite® Gas Booster Water Heater provides 180°F sanitizing hot water and long life dependability. Models can be supplied to operate on either natural or propane gas and feature a burner system that utilizes both primary and secondary air for consistent ignition. Available for U.S. and Canada only.

- Features stainless steel tanks- front and top, powdercoated sides and back, finned tube copper heat exchanger, temperature relief valve, pressure reducing valve, two temperature/ pressure gauges, blended phosphate water treatment system, shock absorber and low-water cut-off
- Spark to light with standing pilot
- PMG-100 has 3 tube type burners, and PMG-200 has 6 tube type burners

PMG-100

GAS BOOSTER WATER HEATERS

Model	Input BTUs/Hour	Output	Dimensions W x D x H●	Ship Weight
PMG-100	105,000	84,800 = 24.8kW	27½" x 20¾" x 31"	180 lbs.
PMG-200	195,000	156,000 = 45.7kW	36" x 20¾" x 31"	215 lbs.

●Height includes legs. Width & Depth does not include temperature pressure relief valve dimensions.

All Gas Booster Water Heater Models Feature:
Electrical Supply: 120 VAC, 360 watt, 3.00 amp.
Connections: Gas – ¾" NPT, Water – ¾" NPT, Electric – 120 VAC, 15 amp.
Fuel: Standard – Natural gas. Optional – Propane gas.
Models Shipped with: Stainless steel tank/front/top, powdercoated sides and back, blended phosphate water treatment system, low-water cut-off (LWCO), temperature/pressure relief valve, pressure reducing valve, shock absorber, two temperature/pressure gauges, indicator light and on/off switch.
Water Capacity: 4¾ gallons.
Natural Gas Inlet Pressure Inches Water Column: Min. – 5.0. Max. – 10.5.
Propane/LP Gas Inlet Pressure Inches Water Column: Min. – 11.0. Max. – 13.0.
Operating Pressure Specifications at Manifold – Inches Water Column at Pressure Tap: Natural Gas – 3.5.
Propane/LP Gas – 10.0.

Direct Fluing: Combustion air enters bottom, flue gasses exit right side or back at top of unit.
Vent^: Forced draft system with 4" diameter vent pipe adapter.
   ^Before installing any method of venting contact the local code authority or gas supplier to make sure the final installation will be acceptable to the authorities who have jurisdiction. See Installation Manual at www.hatcocorp.com for more venting information.
NOTE: Pages 15-17 for sizing information.

WATER QUALITY REQUIREMENTS – PAGE 18

OPTIONS (available at time of purchase only)

Stainless Steel Body and Base –
   SSBB PMG-100
   SSBB PMG-200
PMG-SECURITY Security Package (Torx® Screws and Control Cover)

ACCESSORIES (available for purchase at any time)

QSPRVB	Additional Brass Pressure Reducing Valve with Bypass
QSFLOORMOUNT	Additional Stainless Steel Floor Mounting Leg Assembly
QSSSA-LEGS	Additional Stainless Steel Adjustable Legs 6"-7"
PMG-AI	Air Interlock Switch
BPRV	Back Pressure Relief Valve (page 13 for illustration)
ORIF	High Altitude Kit for Gas and Elevation, applicable at 2000 feet and above (PMG-200 only)

NOTE: 6" plastic adjustable legs (6"-7") standard. Description of accessories is shown on page 13.

ORIF Accessory

P M G - X X X
Powermite
Gas
X = Input BTU's/Hour (approximate)
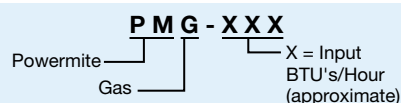
Mini-Compact Electric Booster Water Heaters

The Mini-Compact small specialty heater features a stainless steel tank and fast recovery, making it ideal for hot water sanitizing. This heater includes stainless steel front with powdercoated silver gray hammertone body, black base, 6" legs and a storage capacity of 3.2 gallons.

- Provides 180°F water for hot water sanitizing
- Features temperature/pressure relief valve, a pressure reducing valve, two temperature/pressure gauges, a high-temperature limit control and a low-water cut-off

MC-10

SPECIALTY ELECTRIC BOOSTER WATER HEATERS

Model	Dimensions W x D x H	kW	Voltage	Phase	Ship Weight
MC-10+	11¾" x 12⅞" x 18½"	9.9	208	1, 3	48 lbs.
MC-11+	11¾" x 12⅞" x 18½"	11.4	240, 480	1, 3	48 lbs.
MC-15	11¾" x 12⅞" x 18½"	15	208	3	48 lbs.
MC-17	11¾" x 12⅞" x 18½"	17.25	208	3	48 lbs.

+ Must specify phase. Not field-convertible.

All Specialty Electric Booster Water Heater Models Feature:
Models Shipped with: Low-water cut-off (LWCO), temperature/pressure relief valve, pressure reducing valve and two temperature/pressure gauges.

WATER QUALITY REQUIREMENTS – PAGE 18

OPTIONS *(available at time of purchase only)*

MC-TOGGLE	Built-In On/Off Toggle Switch (does not include Indicator Light and cannot be combined with Security Package)
MCL-SSJA	Stainless Steel Body and Base
MC-480V	480 Volt (MC-11 only)

ACCESSORIES *(available for purchase at any time)*

QSPRVB	Additional Brass Pressure Reducing Valve
QSSSA-LEGS	Additional Stainless Steel Adjustable Legs 6"-7"
QSWATERTREAT	Blended Phosphate Injection System (page 13 for illustration). Not for potable water use
SHOCK	Shock Absorber (reduce Water Hammer)

NOTE: 6" plastic adjustable legs (6"-7") standard. Description of accessories is shown on page 13.

M C - X X

Mini-Compact ———— Kilowatts

Compact Electric Booster Water Heaters

Compact models provide all the 180°F final rinse water to sanitize and flash-dry dishes and flatware. Models include stainless steel front panel, silver gray hammertone body, black base and standard 6" plastic legs. Slide brackets for mounting under a dishtable are available. The Castone® lined tank is standard on all models and has a six gallon capacity.

- The Compact Electric Booster is easy to install next to a dishwasher to save space, either on 6" plastic legs or with accessory slide brackets
- All models include a Castone® lined tank with a 10-year limited warranty, and fiberglass insulation to minimize heat loss

- Swing-away front panels with low-water cut-off, control fuses and transformer allow quick access to probes and elements, for easier serviceability

NOTE: Single phase is uncommon in heaters 24kW and larger and are NOT returnable.

C-18 with optional stainless steel body and base

C-45

COMPACT ELECTRIC BOOSTER WATER HEATERS

Model♦	kW	208V Single Ph	240V Single Ph	208V Three Ph	240V Three Ph	480V Three Ph	Ship Weight
Small							
C-4▼	4			—	—	—	105 lbs.
C-5▼	5			—	—	—	105 lbs.
C-6	6						118 lbs.
C-7	7						118 lbs.
C-9	9						118 lbs.
C-12	12						120 lbs.
C-13	13.5						120 lbs.
C-15	15						120 lbs.
C-17	17.25	—	—		—	—	120 lbs.
C-18	18			—			120 lbs.
Large							
C-24	24						142 lbs.
C-27	27						142 lbs.
C-30	30						142 lbs.
C-36	36						142 lbs.
C-39	39						142 lbs.
C-45	45	—					142 lbs.
C-54	54	—	—				142 lbs.
C-57	57	—	—				142 lbs.

♦ Only 6, 7 & 9kW Models can be field converted to single phase (units are shipped 3-phase open delta). Larger branch circuit required than for balanced 3-phase of equal kW. (Balanced 3-phase available in 4-6 & 9kW Models, consult factory.) 208V and 240V only.

▼ 480V available in single phase only. Contact factory if Balanced 3 Ph is required.

All Compact Electric Booster Water Heater Models Feature:

Voltage: 208V, 240V and 480V.

Dimensions: Models C-4 through C-18: 13"W x 20¾"D x 19¾"H. Add 5¼" to depth for temperature/pressure relief valve. Height includes legs.
Models C-24 through C-57: 18"W x 24"D x 18"H. Add 6½" to depth for temperature/pressure relief valve. Height includes legs.

Models Shipped with: Castone® tank, low-water cut-off (LWCO), temperature/pressure relief valve, pressure reducing valve, two temperature/pressure gauges, indicator light and On/Off switch.

Compact Booster Water Heaters are not recommended for shipment via FED-EX GROUND or United Parcel Service.
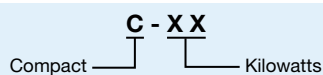
NOTE: Pages 15-17 for sizing information.

NOTE: Consult page 18 for proper Breaker size. Verify amperage load for booster heaters 24kW through 57kW in single phase. Because of excessively high amps and since these units are NOT field convertible to any other voltage or phase, written confirmation is required before processing can begin.

C - X X
Compact ——┘ └—— Kilowatts

C-27 with accessory slide brackets

OPTIONS *(available at time of purchase only)*

SSBB	Stainless Steel Body and Base
C-SECURITY	Security Package (Torx® Screws and Control Cover)

ACCESSORIES *(available for purchase at any time)*

QSBOOSTERBRKT	Additional Slide Brackets
QSFLOORMOUNT	Additional Stainless Steel Floor Mounting Leg Assembly
QSWATERTREAT	Blended Phosphate Injection System (page 13 for illustration). Not for potable water use
QSSHOCK	Shock Absorber (reduce Water Hammer)
QSBPRV	Back Pressure Relief Valve
QSPRVB	Additional Brass Pressure Reducing Valve with Bypass
QSSSA-LEGS	Additional Stainless Steel Adjustable Legs 6"-7"

NOTE: 6" plastic adjustable legs (6"-7") standard. Description of accessories is shown on page 13.

WATER TEMPERATURE RECOVERY TABLE

Compact Model	40°F Rise	70°F Rise	Compact Model	40°F Rise	70°F Rise
C-4	40 gph	23 gph	C-18	181 gph	103 gph
C-5	50 gph	29 gph	C-24	241 gph	138 gph
C-6	60 gph	34 gph	C-27	271 gph	155 gph
C-7	70 gph	40 gph	C-30	301 gph	172 gph
C-9	90 gph	52 gph	C-36	361 gph	206 gph
C-12	120 gph	69 gph	C-39	391 gph	224 gph
C-13	135 gph	77 gph	C-45	452 gph	258 gph
C-15	151 gph	86 gph	C-54	542 gph	310 gph
C-17	173 gph	99 gph	C-57	573 gph	326 gph

NOTE: gph is "gallons per hour."

Imperial Electric Booster Water Heaters

Imperial Booster Water Heaters combine quality construction and rugged dependability to provide up to 573 gph of 180°F sanitizing rinse water. Models include stainless steel front panel, silver gray hammertone body, black base, standard 6" legs, Castone® lined tank and have a 16-gallon capacity.

NOTE: Single phase is uncommon in heaters 24kW and larger and are NOT returnable.

- All models include a Castone® lined tank with a 10-year limited warranty
- Features temperature/pressure relief valve, two temperature gauges, a high-temperature limit control, pilot indicator light, On-Off switch and a low-water cut-off to prevent element burnout due to low water conditions
- Built-in heat trap and fiberglass insulation minimizes heat loss
- Stainless steel front panel and powdercoated silver-gray hammertone body is standard on all Imperial models

S-54

IMPERIAL ELECTRIC BOOSTER WATER HEATERS

Model◆	kW	208V Single Ph	240V Single Ph	208V Three Ph	240V Three Ph	480V Three Ph	Ship Weight
Small							
S-6	6						200 lbs.
S-7	7						200 lbs.
S-9	9						200 lbs.
S-12	12						200 lbs.
S-13	13.5						200 lbs.
S-15	15						200 lbs.
S-17	17.5	—	—		—	—	200 lbs.
S-18	18			—			200 lbs.
Large							
S-24	24						214 lbs.
S-27	27						214 lbs.
S-30	30						214 lbs.
S-36	36						214 lbs.
S-39	39						214 lbs.
S-40	40.5	—	—				224 lbs.
S-45	45	—					224 lbs.
S-54	54	—	—				224 lbs.
S-57	57	—	—				224 lbs.

◆ Only 6, 7 & 9kW Models can be field converted to single phase (units are shipped 3-phase open delta). Larger branch circuit required than for balanced 3-phase of equal kW. (Balanced 3-phase available in 6 & 9kW Models, consult factory.) 208V and 240V only.

All Imperial Electric Booster Water Heater Models Feature:

Voltage: 208V, 240V and 480V.
Dimensions: 23⅝"W x 22¾"D x 31⅛"H. Add 5" to width for temperature/pressure relief valve. Height includes legs.
Models Shipped with: Castone® tank, low-water cut-off (LWCO), temperature/pressure relief valve, pressure reducing valve, two temperature/pressure gauges, indicator light and On/Off switch.
NOTE: Pages 15-17 for sizing information.
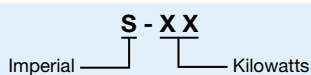**NOTE:** Consult page 18 for proper Breaker size. Verify amperage load for booster heaters 24kW through 57kW in single phase. Because of excessively high amps and since these units are NOT field convertible to any other voltage or phase, written confirmation is required before processing can begin.

S - X X
Imperial ⎵ ⎵ Kilowatts

CASTONE® LINED TANK LIMITED WARRANTY FOR 10 YEARS.

S-57 with optional stainless steel body and base, and accessory stainless steel legs

OPTIONS (available at time of purchase only)

SSBB	Stainless Steel Body and Base
S-SECURITY	Security Package (Torx® Screws and Control Cover)

ACCESSORIES (available for purchase at any time)

QSWATERTREAT	Blended Phosphate Injection System (page 13 for illustration). Not for potable water use
QSFLOORMOUNT	Additional Stainless Steel Floor Mounting Leg Assembly
QSPRVB	Additional Brass Pressure Reducing Valve with Bypass
QSSSA-LEGS	Additional Stainless Steel Adjustable Legs 6"-7"
QSSHOCK	Shock Absorber (reduce Water Hammer)
QSBPRV	Back Pressure Relief Valve

NOTE: 6" plastic adjustable legs (6"-7") standard. Description of accessories is shown on page 13.
Only Leg Mounting is available.

WATER TEMPERATURE RECOVERY TABLE

Imperial Model	40°F Rise	70°F Rise	Imperial Model	40°F Rise	70°F Rise
S-6	60 gph	34 gph	S-24	241 gph	138 gph
S-7	70 gph	40 gph	S-27	271 gph	155 gph
S-9	90 gph	52 gph	S-30	301 gph	172 gph
S-12	120 gph	69 gph	S-36	361 gph	206 gph
S-13	135 gph	77 gph	S-39	391 gph	224 gph
S-15	151 gph	86 gph	S-40	407 gph	232 gph
S-17	173 gph	99 gph	S-45	452 gph	258 gph
S-18	181 gph	103 gph	S-54	542 gph	310 gph
			S-57	573 gph	326 gph

NOTE: gph is "gallons per hour."

Booster Installation

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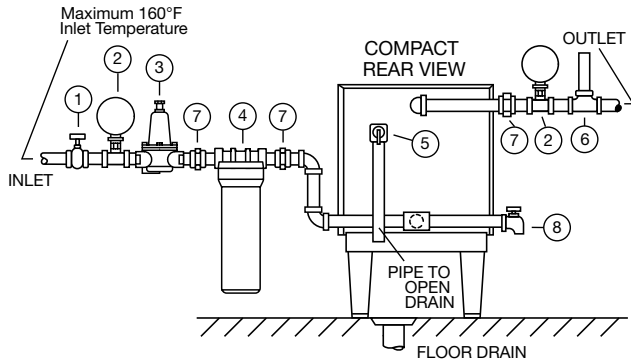
DUAL BOOSTER INSTALLATION
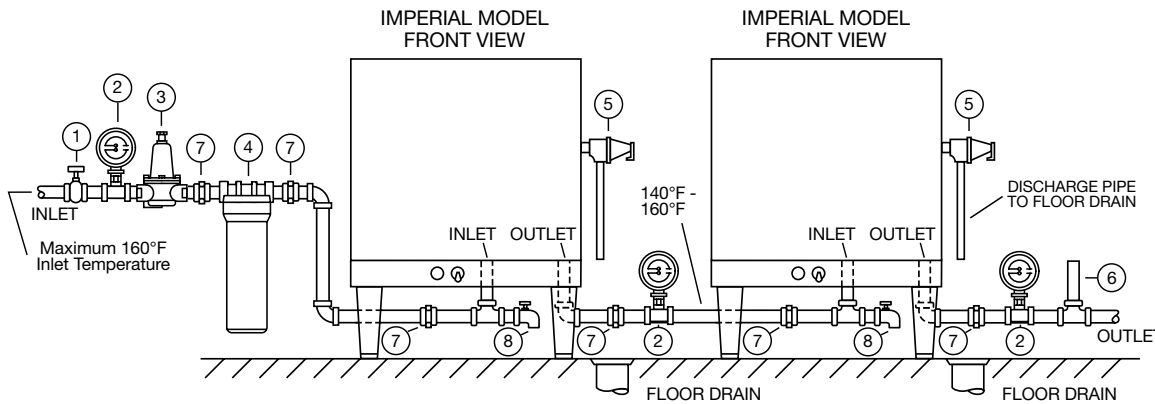
(1) ¾" Gate or Ball Valve* (2) Temperature/Pressure Gauge (3) Pressure Reducing Valve with By-Pass (4) Blended Phosphate Water Treatment System
(5) Relief Valve (must have discharge pipe to floor drain) (6) Shock Absorber (7) Union* (8) Drain Pipe Valve*   *Supplied by installer   CONSULT LOCAL CODES

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

BOOSTER WATER HEATER ACCESSORIES

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 bypass, should be installed in the supply line to the booster to regulate and stabilize flow pressure to 20 psi.

Stainless Steel Adjustable Legs – Adjustable from 6" to 7". Clean appearance and heavy-duty for long wear.

Floor Mounting Hardware – Adjustable from 6" to 7". Corrosion-resistant stainless steel legs for deck mounting.

Blended Phosphate Water Treatment System – Standard with Powermite® units. Minimizes scale formation and increases unit efficiency. Recommended for Electric Boosters. (Not for potable water use)

Shock Absorber – Recommended between the booster and the dishwasher, on all installations, to prevent water hammer. Standard with Powermite® units.

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

Water Heater Data

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
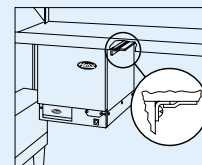
$$\left(\frac{\text{GPH x °F Temp. Rise}}{400} = kW\right)$$

NOTE: GPH is gallons per hour.

ELECTRICAL FORMULAS

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

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

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

SEE BOOSTER HEATER SIZING CHART – PAGES 15-17

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

WATER TEMPERATURE RECOVERY TABLE IN GPH °F RISE

kW	30°	40°	50°	60°	70°	80°	90°	100°
4	54	40	32	27	23	20	18	16
5	67	50	40	33	29	25	22	20
6	80	60	48	40	34	30	27	24
7	94	70	56	47	40	35	31	28
9	120	90	72	60	52	45	40	36
9.9	132	99	79	66	57	50	44	40
10.5	140	105	84	70	60	53	47	42
11.4	153	114	92	76	65	57	51	46
12	161	120	96	80	69	60	54	48
13.5	181	135	108	90	77	68	60	54
15	201	151	120	100	86	75	67	60
17.25	231	173	139	115	99	87	77	69
18	241	181	145	120	103	90	80	72
24	321	241	193	161	138	120	107	96
27	361	271	217	181	155	135	120	108
30	401	301	241	201	172	151	134	120
36	482	361	289	241	206	181	161	145
39	522	391	313	261	224	196	174	157
40.5	542	407	325	271	232	203	181	163
45	602	452	361	301	258	226	201	181
54	723	542	434	361	310	271	241	217
57	763	573	458	381	326	286	254	229

Sizing Chart For Low-Temp Dishmachines

BOOSTERS RATED AT 30°F RISE

Dishwasher Model Number	Electric Compact Booster	Electric Imperial Booster
AMERICAN DISH SERVICE		
AH, AH-3D, AH-3D-S, AHC, AHC-3D, AHC-3D-S, ET-A, ET-AF, ET-AH, ET-A-M, ET-AH-M, ET-A-3, ET-AH-3, L-90-3D, L-90-3D-K, L-90-3D-K-S, L-90-3D-S, L-90-3DC, L-90-3DC-K, L-90-3DC-K-S, L-90-3DC-S, L-90-3DW, L-90-3DW-K, L-90-3DW-K-S, L-90-3DW-S, L-90-3DWC, L-90-3DWC-K, L-90-3DWC-K-S, L-90-3DWC-S, WH, WHC	C-4	S-6
A-3D, A-3D-S, A, AC, AC-3D, AC-3D-S, AH-B, ET-AF-3, ET-AF-M, HT-25, L-60-3D, L-60-3D-K, L-60-3D-K-S, L-60-3D-S, L-60-3DC, L-60-3DC-K, L-60-3DC-K-S, L-60-3DC-S, L-60-3DW, L-60-3DW-K, L-60-3DW-K-S, L-60-3DW-S, L-60-3DWC, L-60-3DWC-K, L-60-3DWC-K-S, L-60-3DWC-S, L-72-3D, L-72-3D-K, L-72-3D-K-S, L-72-3D-S, L-72-3DC, L-72-3DC-K, L-72-3DC-K-S, L-72-3DC-S, L-72-3DW, L-72-3DW-K, L-72-3DW-K-S, L-72-3DW-S, L-72-3DWC, L-72-3DWC-K, L-72-3DWC-K-S, L-72-3DWC-S, W, WC	C-5	S-6
A-B, AD-25, SS-25, 5-AH, 5-AHS	C-6	S-6
AF, AF-3D, AF-3D-S, AF-B, AFC, AFC-3D, AFC-3D-S, AFW, AFWC, 5, 5-S	C-7	S-7
ADC-44, ADC-66, 5-AG, 5-AGS, 5-CD-LF, 5-CD-RF	C-9	S-9
BLAKESLEE		
U21-C	C-4	S-6
D-8-LT	C-6	S-6
DD-8-LT, R-CC64-LT, R-EE-LT	C-12	S-12
Series XF-EE-LT, XF-PEE-LT, XF-LL-LT, XF-PLL-LT, XF-MM-LT, XF-PMM-LT, XF-EEE-LT, XF-LLL-LT, XF-MMM-LT	C-13	S-13
Series R-L-LT, R-PL-LT, R-M-LT, R-PM-LT, F-L-LT, F-PL-LT, F-M-LT, F-PM-LT (single tank)	C-36	S-36
Series "R"&"F"-CC-LT, -EE-LT, -LL-LT, -MM-LT, -LLL-LT, -MMM-LT, -PCC-LT, -PEE-LT, -PLL-LT, -PMM-LT (multi-tank)	C-24	S-24
Series XF-L-LT, XF-PL-LT, XF-M-LT, XF-PM-LT (single tank)	C-54	S-54
Series XF-PEE-LT, XF-PLL-LT, XF-PMM-LT, XF-EEE-LT, XF-LLL-LT, XF-MMM-LT (multi-tank)	C-36	S-36
FA (Flight-A-Round) and RA (Rack-A-Round) use comparable "F" listing.		

Dishwasher Model Number	Electric Compact Booster	Electric Imperial Booster
CHAMPION		
ULD, ULF	C-6	S-6
DLF	C-13	S-13
KL44, KL66	C-36	S-36
CMA DISHMACHINES		
A-1, AH-1, C-1, VAC-1, A-3, AH-3, C-3, L-1C, VAC-3, VAC-4, VAC-5, L-1X	C-4	S-6
A-2, AH-1, AH-2, AH-3, B-3, C-1, C-2, C-3, EVA-1, EVA-2, EVA-3, EVA-4, EVA-5, VAC-2	C-6	S-6
B-1	C-7	S-7
B-2	C-9	S-9
CMA-44L with tank heater, CMA-66L	C-24	S-24
CVA-1, CVA-2, CVA-3, CVA-4	C-6	S-6
CVA-5	C-7	S-7
HOBART		
LX-18C, LX-30C, LX-40C, WM-5C, SR24C	C-4	S-6
LT-1	C-6	S-6
AM-14, AM-14C	C-7	S-7
C44A, CRS66A, CPW80A	C-27	S-27
FT-800	C-30	S-30
JACKSON		
Conserver 24LT, 200LT, ES1000 (Ecolab/Jackson)	C-4	S-6
Conserver 1, Conserver XL, ES2000 (Ecolab/Jackson)	C-9	S-9
Conserver 2, Conserver XL2, ES4000 (Ecolab/Jackson)	C-15	S-15
AJ-44, AJ-66, AJ-80	C-18	S-18
KNIGHT EQUIPMENT LTD.		
KLE-112-HL	C-5	S-6
KLE-117i, KLE-117c, KLE-175GT, KLE-175GTM	C-9	S-9
KLE-235d	C-13	S-13
KLE-175GT Corner, KLE-175GTM Corner	C-12	S-12

Low-Temp Sizing Data

Chemical low-temp dishwashers are most effective when supplied with a 140°F hot water supply. Sometimes this water temperature is not available due to undersized primary water heaters or local safety codes. Hatco can provide a pre-heater for chemical low-temp dishwashers to provide an adequate supply of 140°F hot water for proper operation.

NOTE: When ordering a heater for use with a chemical low-temp dishwasher, thermostat adjustments for low-temp applications are the responsibility of the installer.

To properly size a Hatco heater for low-temp use:

1. Determine the required temperature rise by subtracting the available hot water supply temperature from 140°F. This should be a minimum of 30°F.
2. Determine the water usage by consulting the dishwasher data plate, literature, or NSF listing. This should be shown as gallons per hour (GPH).
3. Use the Hatco formula for sizing or the sizing chart on this page to determine the required kW and select the appropriate Hatco model.

Booster Heater Sizing Chart

Dishwasher Model Number	Electric Compact Booster Temperature Rise		Electric Imperial Booster Temperature Rise		Gas Powermite® Booster▲ Temperature Rise	
	40°F	70°F	40°F	70°F	40°F	70°F
ADAMATION						
CSL-1390, CA-2, CA-3, CA-4, SLAP 44	C-39	(2)C-36	S-39	(2)S-36	PMG-200	(2)PMG-200
CA, CA-1	C-54	(2)C-45	S-54	(2)S-45	PMG-200	(2)PMG-200
ALVEY						
FLC-10, SL-2S			S-6	S-9		
FLC-12, CL-1, CL-1Turntable, SA-5A			S-7	S-12		
FL-2S			S-9	S-13		
KS-70, KS70M SB			S-9	S-15		
SL-2D			S-13	S-18		
FLC-36			S-15	S-27		
KS-88-C			S-18	S-30		
KS-70-N, KS-88-N			S-39	(2)S-40		
AMERICAN DISH SERVICE						
AF-ES, AFC-ES	C-4	C-7	S-4	S-7		
HT-25	C-7	C-12	S-7	S-12		
ADC-44, ADC-66	C-12	C-24	S-12	S-24		PMG-100
BLAKESLEE						
UC-21A, UC-21B	C-4	C-4	S-6	S-6	PMG-100	PMG-100
UC-21	C-6	C-12	S-6	S-12	PMG-100	PMG-100
D-8	C-9	C-13	S-9	S-13	PMG-100	PMG-100
D-9	C-12	C-17	S-12	S-17	PMG-100	PMG-100
Series "R"&"F"-CC, -EE, -LL, -MM, -LLL, -MMM, -PCC, -PEE, -PLL, -PMM (multi-tank) with suffix "LC"	C-13	C-24	S-13	S-24	PMG-200	PMG-200/100
Series XF-EE, XF-LL	C-17	C-30	S-17	S-30	PMG-100	PMG-200
Series XF-LL, XF-PLL, XF-MM, XF-PMM, XF-EEE, XF-LLL, XF-MMM (Multi-tank) with suffix "LC"	C-17	C-30	S-17	S-30	PMG-200	PMG-200/100
DD-8	C-18	C-30	S-18	S-30	PMG-100	PMG-200
Series F-E, FA-EE, FA-PEE, FA-LL, FA-PLL, FA-MM, FA-PMM, F-EEE, FA-EEE, FA-LLL, FA-MMM, F-PE	C-30	C-54	S-30	S-54	PMG-200	PMG-200/100
Series R-L, R-PL, R-M, R-PM, F-L, F-PL, F-M, F-PM (single tank)	C-36	C-54	S-36	S-54	PMG-200	(2)PMG-200
Series XF-L, XF-PL, XF-M, XF-PM (single tank)	(2)C-36		(2)S-36			
Series R-E, R-PE, XF-PEE, XF-PLL, XF-PMM, XF-EEE, XF-LLL, XF-MMM (multi-tank) FA (Flight-A-Round) and RA (Rack-A-Round) use comparable "F" listing.	C-45	(2)C-30	S-45	(2)S-30	PMG-200	(2)PMG-200
XF-EE, XF-EE-LT (with LT suffix)	C-17	C-36	S-17	S-36	PMG-100	PMG-200
CHAMPION						
U-H1, UH-200, UH-200B, U-HB	C-4	C-6	S-6	S-6	PMG-100	PMG-100
UL-100, UH-100B, UH-170B, UH-200B, DH-2000	C-6	C-9	S-6	S-9	PMG-100	PMG-100
UL-150	C-4	C-7	S-6	S-7	PMG-100	PMG-100
UH-150, UH-150B, UH-100, UH-100B, DHB-VS	C-5	C-9	S-6	S-9	PMG-100	PMG-100
D-H1, D-HB, D-H1T, D-HBT	C-9	C-13	S-9	S-13	PMG-100	PMG-100
44 DRWS, 66 DRPWWS, 80 DRHDPWWS, 70 DRFFPWWS	C-9	C-13	S-9	S-13	PMG-100	PMG-100
PP-28	C-27	C-45	S-27	S-45	PMG-100	PMG-200
D-H1C, D-H1TC	C-9	C-18	S-9	S-18	PMG-100	PMG-100
DL-1000, DH-1000, DHB-VS	C-6	C-12	S-6	S-12	PMG-100	PMG-100
44DR, 66DRPW, 80DRHDFW, 70DRFFPW, 54DR, 76DRPW, 80DRFFPW, 90DRHDPW	C-12	C-24	S-12	S-24	PMG-100	PMG-100
44-WS, 66 WSPW, 66-WS, 64, 70WSFFPW, 80WSHDPW, 90FFPW, 100HDPW, 86 PW, 84, 106 PW, 120 HDPW, 110 FFPW	C-15	C-24	S-15	S-24	PMG-100	PMG-100
UC-CW6-WS	C-24	C-36	S-24	S-36	PMG-100	PMG-200
US-CW8-WS	C-24	C-39	S-24	S-39	PMG-100	PMG-200
44, 66 PW, 70FFPW, 80HDPW	C-27	C-54	S-27	S-54	PMG-100	PMG-200
54, 76PW, 80FFPW, 90HDPW,	C-24	C-45	S-24	S-45	PMG-100	PMG-200
40-KB, 40-KB-2-2, 40-KFWB, 40-KPRB, 40-KPRB-2-2, 40KPRB-2-3, 44LT, 60-KB, 60-KB-2-2, 60-KFWB, 60-KFWB-2-2, 60-KPRB, 60-KPRB-2-3, 64KB, 64-KB Corner, 64-KPRB, 64-KPRB Corner, 64 Modular, 66LT, 86 Modular	C-30	C-54	S-30	S-54	PMG-200	PMG-200/100
44-KB, 44-KB Corner, 44-KPRB, 44-KPRB Corner, 54-KB, 54-KB Corner, 54-KPRB, 54-KPRB Corner, 44 Modular, 66 PW Modular, UC** Series 6' Center, UC-C4	C-36	C-57	S-36	S-57	PMG-200	PMG-200/100
UC-CW4	C-36	(2)C-36	S-36	(2)S-36	PMG-200	PMG-200/100
UC-C	C-45	(2)C-36	S-45	(2)S-36	PMG-200	PMG-200/100
UC**CW Series 6' Center	C-45	(2)C-39	S-45	(2)S-39	PMG-200	(2)PMG-200
W-6-WS, W6	C-45	(2)C-45	S-45	(2)S-40	PMG-200	(2)PMG-200

▲Powermite installations above 2,000 ft. will reduce the above capacities and may require change of pressure and/or orifices in certain models at time of install to meet IAS safety compliance. These modifications are the responsibility of the installer. Consult "Installation and Operating Manual" for sizing adjustments and orifice changes.

Booster Heater Sizing Chart

Dishwasher Model Number	Electric Compact Booster Temperature Rise		Electric Imperial Booster Temperature Rise		Gas Powermite® Booster▲ Temperature Rise	
	40°F	70°F	40°F	70°F	40°F	70°F
CMA DISHMACHINES						
CMA-180	C-7	C-12	S-7	S-12		
CMA-44/66	C-24	C-36	S-24	S-36	PMG-100	PMG-200
CMA-44H with tank heater, CMA-66H	C-36	C-45	S-36	S-45	PMG-100	PMG-200
EST-44/66	C-12	C-24	S-12	S-24	PMG-100	PMG-100
HOBART						
AM-15F	C-4	C-6	S-6	S-9	PMG-100	PMG-100
LXiC, LXiGC, LX-18C, LX-30C, LX-40C, AM-15F	C-4	C-7	S-6	S-6	PMG-100	PMG-100
LX-30, SR24, SR24H	C-4	C-7	S-6	S-7	PMG-100	PMG-100
LX-18, AM-14F, AM-15, AM-15T	C-5	C-9	S-6	S-9	PMG-100	PMG-100
WM-5C	C-6	C-9	S-6	S-9		PMG-100
WM-5 (Without sump heater)	C-7	C-12	S-7	S-12		
AM-14T, AM-14TC	C-7	C-12	S-7	S-12	PMG-100	PMG-100
AM-14, AM-14C	C-9	C-17 or C-18	S-9	S-17 or S-18	PMG-100	PMG-100
AM-12, AM-12C*	C-9	C-12	S-9	S-12	PMG-100	PMG-100
UW-50			S-15	S-24		
OR Opti-RinSe C44A, CRS-66A, CCS-66A, CPW-80A, C54A, CRS-76A, CCS-76A, CPW-90A, C64A, CRS-86A, CCS-86A, CPW-100A, C88A, CRS-110A, CCS-11-0A, CPW-124A	C-15	C-27	S-15	S-27	PMG-100	PMG-200
C-54A, CRS-76A, CPW-90A, CCS-76A	C-39	(2)C-36	S-39	(2)S-36	PMG-200	PMG-200/100
C-44A, CRS-66A, CCS-66A, CPW-80A, C-64A, CRS-86A, CCS-86A, CPW-100A	C-30	C-54	S-30	S-54	PMG-200	PMG-200/100
C-88A, CRS-110A, CPW-124A, CCS-110A	C-36	C-54	S-36	S-54	PMG-200	PMG-200/100
Opti-RinSe C44AW, CRS-66AW, CCS-66AW, CPW-80AW	C-9	C-15	S-9	S-15	PMG-100	PMG-100
OR C-44AW, CRS-66AW, CPW-80AW, CCS-66AW	C-12	C-24	S-12	S-24	PMG-100	PMG-100
C-44, CRS-66, CPW-80	C-36	C-54	S-36	S-54	PMG-200	PMG-200/100
CL44e, CL66e	C-13	C-24	S-13	S-24	PMG-100	PMG-200
CLPS66e	C-15	C-30	S-15	S-30	PMG-100	PMG-200
C-54, CRS-76, CPW-90	C-54	(2)C-39	S-54	(2)S-39	PMG-200/100	(2)PMG-200
C-64W, CRS-86W, CPW-100W, C-88W, CRS-110W, CPW-124W, CCS-86W	C-24	C-36	S-24	S-36	PMG-100	PMG-200
C-64, CRS-86, CPW-100	C-45	(2)C-36	S-45	(2)S-36	PMG-200	PMG-200/100
FT800W, FT-900W	C-24	C-39	S-24	S-39	PMG-200	PMG-200
FT-600, FT-700	C-54	(2)C-39	S-54	(2)S-39	PMG-200/100	(2)PMG-200
FT800	C-39	(2)C-39	S-39	(2)S-39	PMG-200	(2)PMG-200
FT900	C-36	C-57	S-36	S-57	PMG-200	PMG-200/100
FT800S, FT-900S	C-39	(2)C-36	S-39	(2)S-36	PMG-200	PMG-200/100
UTW-28, UTW-28C			S-18	S-36		
FRC and FR (Fast Rack Series) use comparable "C" line listing.						
INSINGER						
GS 302, GS-14	C-4	C-4	S-6	S-6	PMG-100	PMG-100
45SA-5	C-4	C-7	S-6	S-7	PMG-100	PMG-100
Commander 18-5 Series, CS-5, CS-5C, CS-5CH, CS-5H, Ensign 40-2	C-6	C-12	S-6	S-12	PMG-100	PMG-100
Commander 18-6 Series, 18-6H	C-6	C-12	S-6	S-12	PMG-100	PMG-100
Commander 18-6, 18-6H (Built-In)	ABB-13.5	ABB-13.5				
Admiral 44-4, 66-4, Speeder 64, 86-3, Clipper (all)	C-15	C-27	S-15	S-27	PMG-100	PMG-200
Admiral 44-4, 66-4 (Built-In)	ABB-15-8	ABB-27-8				
135-20, 185-20, 250-20, 60-20, 85-20, R-106-2	C-24	C-45	S-24	S-45	PMG-100	PMG-200
Century (all)	C-24	C-45	S-24	S-45	PMG-100	PMG-200
Trac 878	C-24	C-36	S-24	S-36	PMG-100	PMG-200
Century 14, Clipper RC-##-RPW-W	C-24	C-39	S-24	S-39	PMG-100	PMG-200
Super 106-2, Trac 321, Trac 321-2/RPW	C-27	C-45	S-27	S-45	PMG-100	PMG-200
Defender Flight Machine	C-36	C-54	S-36	S-54	PMG-200	(2)PMG-200
Master RC 3-tank Flight Machine	C-15	C-27	S-15	S-27	PMG-200	(2)PMG-200
Master RC 4-tank Flight Machine	C-36	C-57	S-36	S-57		
CA-3①			S-9	S-24	PMG-200	
DA-3①			(2)S-9	(2)S-24		

For outdated models, consult factory for correct booster.

* Model AM-12 with serial no. 12-067-357 or below and model AM-12C with serial no. 12-067-537 or below require slightly larger booster than listed.

OR C Models with serial no. 85-1041605 or greater use Opti-RinSe.

▨ Shaded area indicates older models prior to Opti-RinSe.

▲ Powermite installations above 2,000 ft. will reduce the above capacities and may require change of pressure and/or orifices in certain models at time of install to meet IAS safety compliance. These modifications are the responsibility of the installer. Consult "Installation and Operating Manual" for sizing adjustments and orifice changes.

① Consult factory - special plumbing may apply.

Booster Heater Sizing Chart

Dishwasher Model Number	Electric Compact Booster Temperature Rise		Electric Imperial Booster Temperature Rise		Gas Powermite® Booster▲ Temperature Rise	
	40°F	70°F	40°F	70°F	40°F	70°F
JACKSON						
JP-24, JP-24B, JP-24F, JP-24BF	C-4	C-6	S-6	S-6	PMG-100	PMG-100
24B Series		C-4		S-6		PMG-100
10AB, 10APRB		C-5		S-6		PMG-100
44CE*, 66 CERPW	C-30	C-54	S-30	S-54	PMG-200	
54CE, 76 CERPW	C-36	(2)C-30	S-36	(2)S-30	PMG-200	
64CE, 86 CERPW	C-27	C-39	S-27	S-39	PMG-200	
100	C-12	C-24	S-12	S-24	PMG-100	
100B, 100PRB, 150B, 150PRB		C-9		S-9		
150	C-12	C-18	S-12	S-18		PMG-100
200	C-7	C-12	S-7	S-12	PMG-100	PMG-100
200B		C-6		S-6		PMG-100
Tempstar GPX						PMG-100
Tempstar, Tempstar SDS, Tempstar HH	C-6	C-12	S-6	S-12	PMG-100	PMG-100
TS-44, TS-66	C-24	C-36	S-24	S-36	PMG-100	PMG-200
AJ-44, AJ-66, AJ-80, WH-44, ES-4400, ES-6600 (ECOLAB/JACKSON)	C-24	C-45	S-24	S-45	PMG-100	PMG-200
AJ-54, AJ-76, AJ-90	C-30	C-54	S-30	S-54	PMG-200	PMG-200/100
AJ-64, AJ-86, AJ-100	C-24	C-39	S-24	S-39	PMG-100	PMG-200

* Model #44CE w/SN1999 or below requires larger booster than listed.

Dishwasher Model Number	Electric Compact Booster Temperature Rise		Electric Imperial Booster Temperature Rise		Gas Powermite® Booster▲ Temperature Rise	
KNIGHT EQUIPMENT LTD.						
KLE-112-HL	C-7	C-12	S-7	S-12	PMG-100	PMG-100
MEIKO						
K-44, K-66, K-80	C-24	C-36	S-24	S-36	PMG-100	PMG-200
K-54, K-76, K-90, K-64, K-86, K-100	C-24	C-45	S-24	S-45	PMG-100	PMG-200
METALWASH/INTEDGE						
FW4	C-12	C-18	S-12	S-18	PMG-100	PMG-100
RS-30A, RS-28L			S-15	S-24		
RT-74, RT-60, RT-42B, RT-42BC			S-27	S-40		
RS-2R			S-30	S-45		
STERO						
ER-44, ER-44-10, ER-66S, ER-76S, ER-76SC	C-15	C-24	S-15	S-24	PMG-100	PMG-100
ER-64, ER-86S, ER-94S, ER-94SC	C-15	C-24	S-15	S-24	PMG-100	PMG-100
SCT-44-10-LW, SCT-44-LW, SCT-66S-LW, SCT-76S-LW, SCT-76SC-LW, SCT-90S-LW	C-15	C-24	S-15	S-24	PMG-100	PMG-100
SC-1-2-4-LW, SC-1-6-4-LW, SC-2-4-LW, SC-5-2-4-LW, SC-5-6-4-LW, SC-6-4-LW	C-15	C-24	S-15	S-24	PMG-100	PMG-200
SCT-64, SCT-86S, SCT-94S, SCT-94SC	C-24	C-45	S-24	S-45	PMG-100	PMG-200
SCT-108S, SCT-108SC, SCT-76, SCT-94SM	C-30	C-54	S-30	S-54	PMG-200	PMG-200/100
SC-6-4, SCT-44, SCT-44-10, SCT-66S, SCT-76S, SCT-76SC, SCT-90S	C-36	C-54	S-36	S-54	PMG-200	PMG-200/100
SCT-120S, SCT-120SC, SCT-120SM, SCT-150SM	C-36	C-57	S-36	S-57	PMG-200	PMG-200/100
STW-110, SC-1-2-7-4, SC-1-6-3-4, SC-2-7-4, SC-5-2-7-4, SC-5-6-3-4, SC-5-6-7-4, SC-6-3-4, SC-6-7-4	C-30	C-54	S-30	S-54	PMG-200	PMG-200/100
SC-1-2-4, SC-1-6-4, SC-2-4, SC-5-2-4, SC-5-6-4	C-36	(2)C-57	S-36	(2)S-57	PMG-200	(2)PMG-200
SCT-44-10-SC-1-3-4, SCT-44-10-3-4, SCT-44-SC-1-3-4, SCT-44-SC-3-4, SCT-54-SC-1-3-4, SCT-54-SC-3-4, SCT-76S-SC-3-4	C-36	C-54	S-36	S-54	PMG-200	(2)PMG-200
STPC (Four tank)	C-24	C-45	S-24	S-45	PMG-100	PMG-200
STPCW (Four tank)	C-27	C-45	S-27	S-45	PMG-100	PMG-200
STPC	C-30	C-54	S-27	S-54	PMG-200	PMG-200/100
STPCW	C-36	(2)C-30	S-36	(2)S-30	PMG-200	PMG-200/100
SD-2RA, SDRA, SDRA-PACK	C-12	C-18	S-12	S-18	PMG-100	PMG-100
U-31-A, U-31-AC			S-24	S-45	PMG-100	PMG-200
U-31-A2			(2)S-24	(2)S-45	PMG-200	(2)PMG-200
STBUW-1	C-45	(2)C-36	S-45	(2)S-36		
SC-2-3-4, SC-5-2-3-4	C-30	C-45	S-30	S-45	PMG-200	
SC20-1 (low temp.)	C-12		S-12		PMG-100	
SC20-2 (low temp.)	C-12	C-24	S-12	S-24		PMG-100
SC-2-8, SC-2-9, SC-1-2-8, SC-5-6-8, SC-6-8, SC-6-9, SC-1-6-8, SC-5-6-9, SC-5-2-9, SC-1-6-9, SC-5-2-8 (low temp.)	C-18	C-36	S-18	S-36	PMG-100	PMG-200

▲Powermite installations above 2,000 ft. will reduce the above capacities and may require change of pressure and/or orifices in certain models at time of install to meet IAS safety compliance. These modifications are the responsibility of the installer. Consult "Installation and Operating Manual" for sizing adjustments and orifice changes.

This selector chart is based on 40°F and 70°F temperature rises, 20 psi flow pressure, and minimum rinse cycle timer setting in NSF listing.

All booster heaters are rated at 100% of the capacity of the dishwashers as recommended by the National Sanitation Foundation. Where make-up water for wash tank is provided from final rinse supply, chart recommendations are based upon this additional demand (not over 2 GPM) as required by NSF.

All sizings shown are that of the dishwasher manufacturers. Hatco Corporation is not responsible for incorrect sizing applications.

ELECTRICAL DATA

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

NOTE: GPH is gallons per hour.

Electrical Ratings For Hatco Water Heaters

Watts	Volts	Phase	Amps	Breaker or Fuse Size
4kW	208	1	19	30
	240	1	17	30
	480	1	8	15
5kW	208	1	24	30
	240	1	21	30
	480	1	10	15
6kW	208	1	29	40
	208	3	25†	40
	240	1	25	40
	240	3	22†	30
	480	3	11†	15
	600	3	5.7	15
7kW	208	1	34	50
	208	3	29†	40
	240	1	29	40
	240	3	25†	40
	480	3	13†	20
	600	3	6.7	15
9kW	208	1	43	60
	208	3	38†	50
	240	1	38	50
	240	3	33†	50
	480	3	16.3†	30
	600	3	8.7	15
9.9kW	208	1	47.5	60
	208	3 (BAL.)	27.5	40
10.4kW	208	3 (BAL.)	28.8	40
11.4kW	240	1	47.5	60
	240	3 (BAL.)	27.5	40
	480	3 (BAL.)	13.7	20
12kW	208	1	58	90
	208	3	33	50
	240	1	50	70
	240	3	29	40
	480	3	14.5	20
	600	3	11.6	20
13.5kW	208	1	65	90
	208	3	38	50
	240	1	56.3	90
	240	3	33	50
	480	3	16.3	30
	600	3	13	20
15kW	208	1	72	90
	208	3	41.7	60
	240	1	62.5	90
	240	3	36.1	50
	480	3	18.1	30
	600	3	14.5	20
17.25kW	208	3	47.9	60
18kW	208	1	86.5	125
	240	1	75	100
	240	3	43.4	60
	480	3	21.7	30
	600	3	17	30

Watts	Volts	Phase	Amps	Breaker or Fuse Size
24kW	208	1	115.4	150
	208	3	66.7	90
	240	1	100	125
	240	3	57.8	90
	480	3	29.9	40
	600	3	23	30
27kW	208	1	129.8	175
	208	3	75	100
	240	1	112.5	150
	240	3	65	90
	480	3	32.5	50
	600	3	26	40
30kW	208	1	144	200
	208	3	83.3	125
	240	1	125	175
	240	3	72.3	100
	480	3	36	50
	600	3	28.9	40
36kW	208	1	173	225
	208	3	100	125
	240	1	150	200
	240	3	86.7	125
	480	3	43.3	60
	600	3	34.7	50
39kW	208	1	187.5	250
	208	3	108	150
	240	1	163.5	225
	240	3	94	125
	480	3	47	60
	600	3	37.6	50
40.5kW	208	3	112.5	150
	240	3	97.5	125
	480	3	48.8	70
	600	3	39	50
45kW	208	3	125	175
	240	1	188	250
	240	3	108	150
	480	3	54	70
	600	3	43.4	60
54kW	208	3	150	200
	240	3	130	175
	480	3	65	90
	600	3	52	70
57kW	208	3	158.4	200
	240	3	137.3	175
	480	3	68.6	90
	600	3	54.9	70

† Open Delta (unbalanced load) amperage of high leg indicated.

USE COPPER WIRE ONLY

ELECTRICAL FORMULAS

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

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

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

Water Quality Requirements

Water supply in excess of 3.0 grains of hardness per gallon (GPG) must be treated and softened before being used. Water containing over 3.0 GPG 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.

NOTE: See page 13 for Picture of Blended Phosphate Water Treatment System.

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