

High Efficiency Compact Electric Tankless Booster Heater

98%+ efficient, easy to install and operate. Available up to 54 kW in single or three phase voltages

For use with conveyor and flight type dish machines, not intended for use with door style dish machines

Instantaneous design reduces stand-by heat loss and significantly lowers operating costs compared to traditional storage systems

Constructed with high-grade materials to ensure long operating life

- Digital display provides clear indication of set point temperature and fault conditions
- Factory packaged heater provides trouble-free installation and operation
- Engineered specifically for use in commercial kitchens
- Wide selection of sizes to meet the needs of all dish machine manufacturers

Applications

Dish machine booster, hood washing, pot washers, point-of-use water heating, three compartment sinks.



Tankless water heater for commercial kitchens

The Hubbell Expeditor JTX tankless electric water heater is highly reliable and easy to maintain. The JTX is compact, extremely efficient, takes up minimal space, and reduces operating costs.

Hubbell booster heaters are the right choice for your food service applications. Our boosters are designed, engineered, and manufactured for reliability and longevity coupled with unparalleled support and service.

Get a booster heater from the booster heater experts.

NOTE: Manufactured in an ISO 9001:2015 facility. BABA & BAA compliance is available upon request.



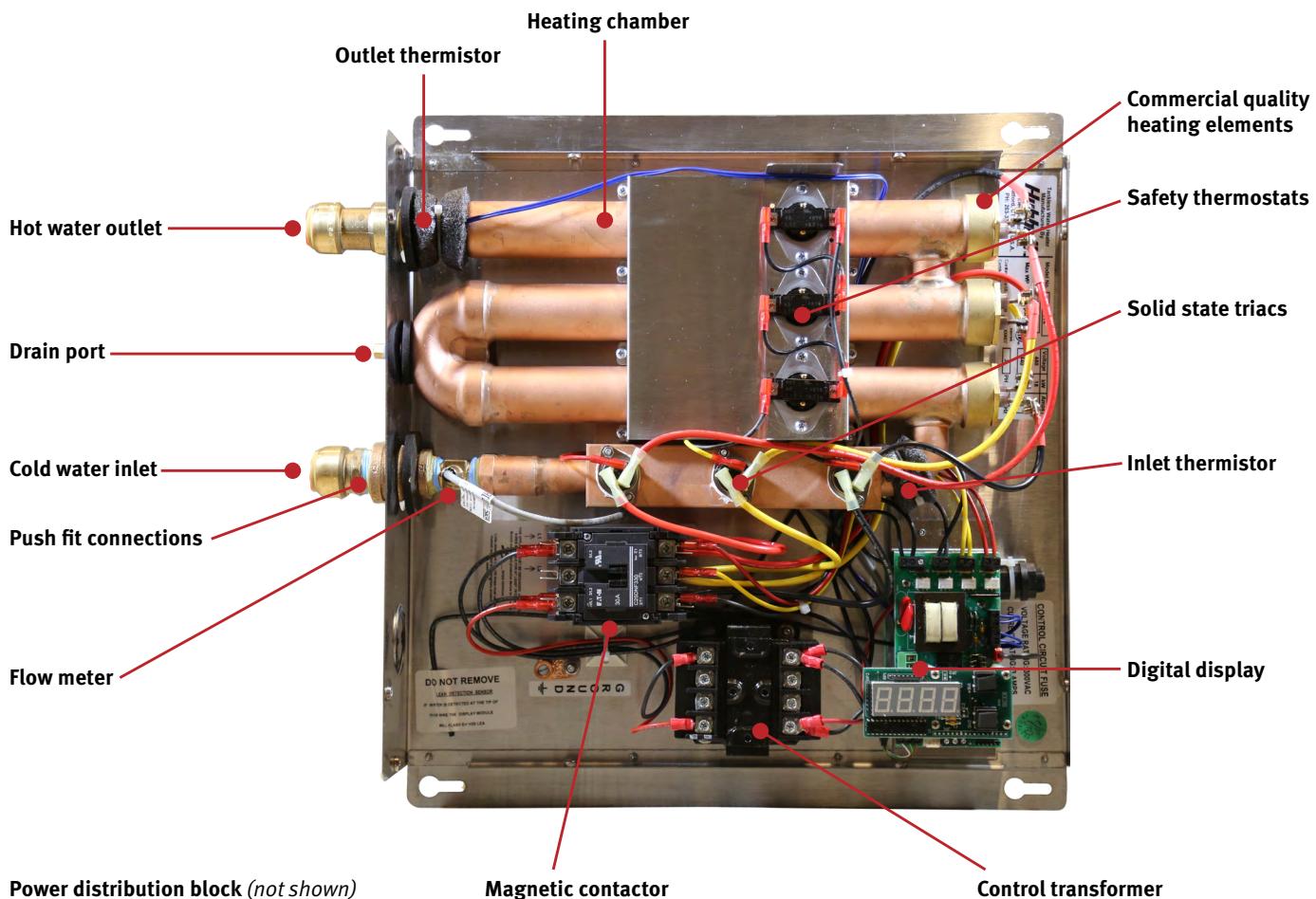
Meets the requirements of the ASME Boiler and Pressure Vessel Code



Inside the Expeditor JTX

The Hubbell Expeditor JTX uses only the power needed to heat water on demand, while delivering an accurate and consistent water temperature. The controller continually processes the flow rate along with the

inlet and outlet temperature to determine the amount of energy needed to achieve the desired water temperature. Fast-acting TRIACS modulate the heating elements to the precise level needed to meet the demand.



Technical Features

Temperature Controller

A sophisticated electronic temperature controller with LED digital display provides the user interface. The temperature controller processes all flow and temperature data and calculates the precise amount of power needed to meet demand.

Operator Control Capabilities

Power Limiting	This feature allows the user to limit the kW rating of the unit by a specific percentage and effectively lower the total amp draw of the unit.
Diagnostics	Display inlet and outlet temperatures, flow rate and error codes to assist in troubleshooting.
Cost Calculator	Determine the exact cost of operating the heater. Input your cost per kW-Hr and the controller displays total kW-HRs consumed, total cost of operation, and total hot water usage (shown in gallons or liters).
Temperature Control	Set the digital display to the desired water temperature in °F or °C. Fully adjustable in 1° increments from 32–194°F (0–90°C). A user adjustable +/- 3° calibration feature provides additional control for superior accuracy.

Full Heater Modulation

Each heating element is switched on/off using a fast acting solid state TRIAC with zero cross over firing control. This switching action provides full modulation of each heating element, ensuring that the precise amount of heat is added to meet demand. To improve operating efficiency and component longevity, each TRIAC is mounted to a heat sink located on the incoming supply piping so that heat generated by the TRIAC during the switching process is dissipated into the water.

For use with conveyor and flight type dish machines, not intended for use with door style dish machines.
If your conveyor or flight type machine has a "seeing eye" consult factory.

Proper Power Integrity

All Hubbell Infinity tankless water heaters, including all 3 phase models, are engineered to operate as a balanced load and operate at 0.999 Power Factor. All Hubbell 3 phase models are designed for 3 wire (3 live, 1 ground) and 4 wire power systems and draw equal current across all conductors to maintain the power integrity of the users electrical system. Hubbell does not recommend the use of heaters that operate as an unbalanced load. All load switching in Hubbell tankless models is performed as zero cross over, eliminating phase angle firing interference and associated EMI issues.

Full Resource Staging

The Hubbell Infinity tankless control system ensures that usage is equalized across all heating circuits. To achieve this, once the controller has calculated the precise amount of kW required, all circuits are energized proportionally and independently energized and then time staggered between circuits. This full resource staging reduces EMI output, increases component longevity, and provides highly accurate and consistent hot water temperatures. For three phase models, all circuits are fully modulated and synchronized to operate as a balanced load.

BACnet Module

The Hubbell BACnet interface unit implements BACnet MS/TP protocol. The device comes from the factory ready to be operated. The unit can be reconfigured easily with a USB cable and the BACnet Network Utility program located on the Hubbell website. The BACnet includes features such as set temperature, power limiting, power setting, temperature in and out, flow rate, flowmeter error and leak detections. Note that internet protocol is not supported.

Heater Specifications

Heating Chamber	Copper and Bronze
Capacities	8–54 kW
Orientation	Wall Mounted
Voltages	208–600 Volt, 50/60 HZ
Phases	1Φ or 3Φ (balanced)
Power Factor	0.999
Thermal Efficiency	98% +
Inlet / Outlet Size	JTX: 3/4" Dielectric Union Copper Sweat JHX: 1" Dielectric Union Copper Sweat
Min/Max Flow	JTX: 0.2 GPM Min, 8.0 GPM Max JHX: 0.5 GPM Min, 40 GPM Max
Max Inlet Temp.	150°F
Thermostat Range	32–194°F / 0– 90°C
Hi-Limit	200°F (Fixed temperature)
Design WP	150 psi
Design TP	225 psi
Elements	Incoloy 800
Standby Power	< 3 Watts
Heating Chamber Warranty	5 Year
Electrical Warranty	1 Year
Labor Warranty	1 Year
Enclosure	Stainless Steel Brushed Finish
Approvals	ETL, ANSI/NSF 5

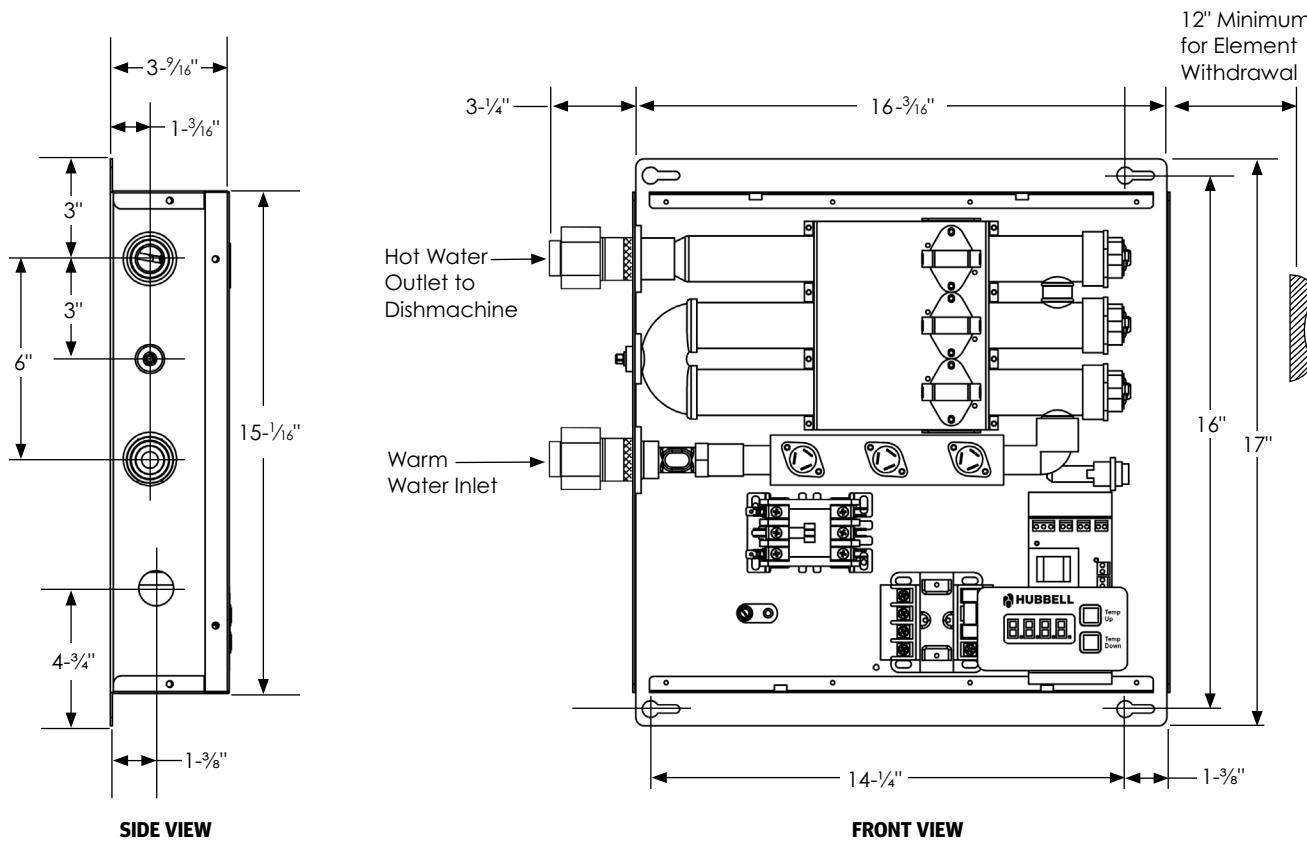


kW and Amperage Selection Charts

3 Element

(Amperage shown in chart below indicates available models)

kW Rating	1 Phase Voltages		3 Phase Voltages			
	208	240	208	240	480	600
8					10	
11			31			
12		50	33		14	
14				34		
16	77		44	39		
18	87		50		22	
20	96		56			
21		88		51	25	20
24		100		58	29	23
27		113		65	33	26

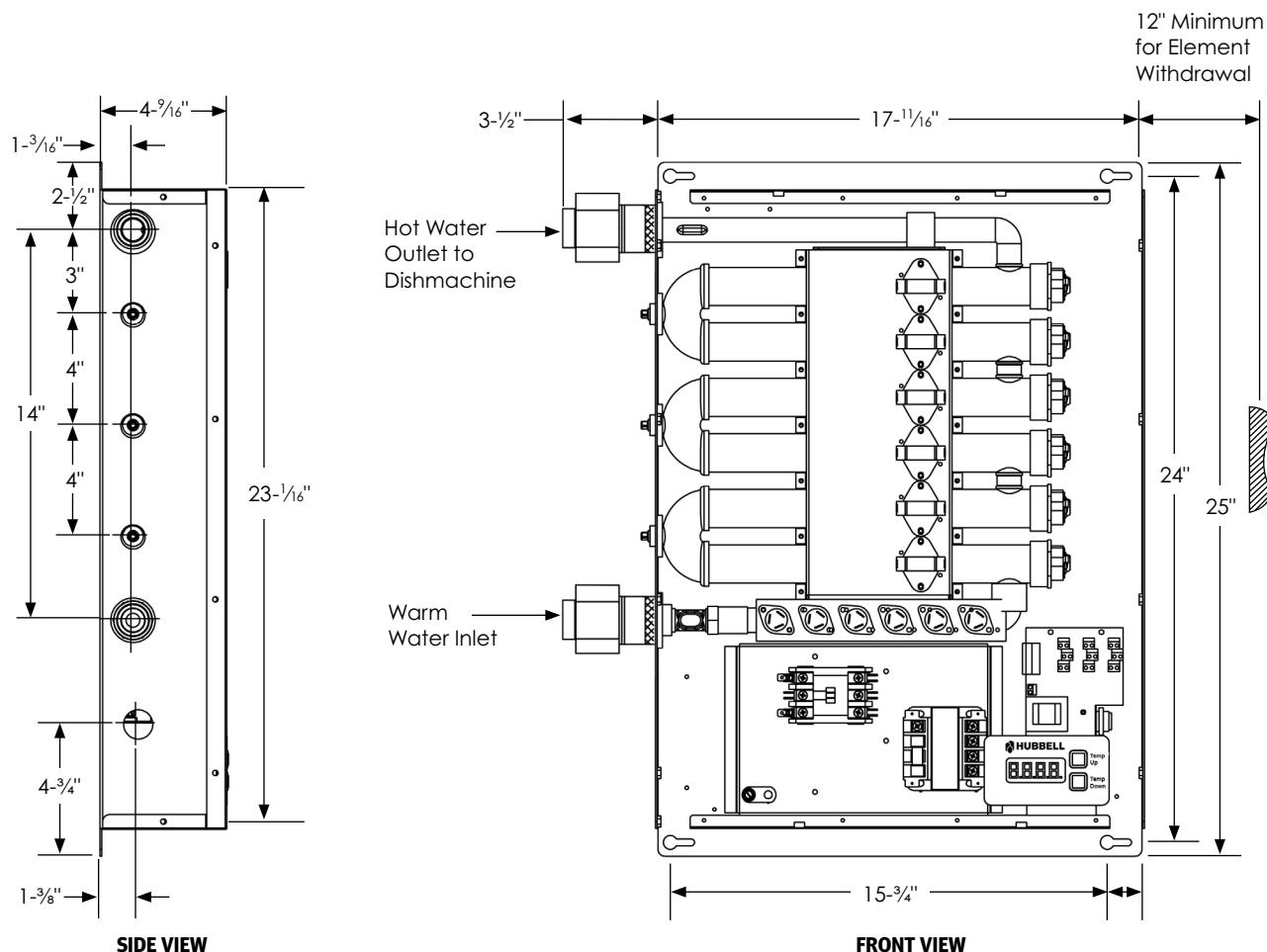


kW and Amperage Selection Charts

6 Element

(Amperage shown in chart below indicates available models)

kW Rating	1 Phase Voltages		3 Phase Voltages			
	208	240	208	240	480	600
24	115		67			
31	149		86			
33		138		79		
35						34
36	173		100	87	43	
40	192		111			39
42		175		101	51	40
48	231	200	133	116	58	46
50						48
54		225		130	65	52



Heating Capacity

kW Rating	Heating Capability in GPM at F° Temperature Rise (°FΔT)									
	20°F ΔT	30°F ΔT	40°F ΔT	60°F ΔT	70°F ΔT	80°F ΔT	100°F ΔT	110°F ΔT	120°F ΔT	140°F ΔT
8	2.73	1.82	1.36	0.91	0.78	0.68	0.55	0.50	0.45	0.39
11	3.75	2.50	1.88	1.25	1.07	0.94	0.75	0.68	0.63	0.54
12	4.09	2.73	2.05	1.36	1.17	1.02	0.82	0.74	0.68	0.58
14	4.78	3.18	2.39	1.59	1.36	1.19	0.96	0.87	0.80	0.68
16	5.46	3.64	2.73	1.82	1.56	1.36	1.09	0.99	0.91	0.78
18	6.14	4.09	3.07	2.05	1.75	1.54	1.23	1.12	1.02	0.88
20	6.82	4.55	3.41	2.27	1.95	1.71	1.36	1.24	1.14	0.97
21	7.17	4.78	3.58	2.39	2.05	1.79	1.43	1.30	1.19	1.02
24	8.19	5.46	4.09	2.73	2.34	2.05	1.64	1.49	1.36	1.17
27	9.21	6.14	4.61	3.07	2.63	2.30	1.84	1.67	1.54	1.32
31	10.58	7.05	5.29	3.53	3.02	2.63	2.12	1.92	1.76	1.51
33	11.26	7.51	5.63	3.75	3.22	2.81	2.25	2.05	1.88	1.61
36	12.28	8.19	6.14	4.09	3.51	3.07	2.46	2.23	2.05	1.75
40	13.65	9.10	6.82	4.55	3.90	3.41	2.73	2.48	2.27	1.95
42	14.33	9.55	7.17	4.78	4.09	3.58	2.87	2.61	2.39	2.05
48	16.38	10.92	8.19	5.46	4.68	4.09	3.28	2.98	2.73	2.34
54	18.42	12.28	9.21	6.14	5.26	4.61	3.68	3.35	3.07	2.63

Notes

Alternate voltages including 277, 380, 415, 440 and 575 volt available. Please consult factory for exact kW availability in these voltages.

 Specify Expeditor JHX due to high flow rate

Variables to Solve For

Step 1: Solve for the unknown using the formulas below.

kW Requirement:

$$\text{GPM} \times \text{°FΔT} \times 0.1465 = \text{kW}$$

Temperature Rise:

$$\text{kW} \times 6.824 \div \text{GPM} = \text{°FΔT}$$

Flow Rate:

$$\text{kW} \times 6.824 \div \text{°FΔT} = \text{GPH}$$

Step 2: Choose the Tankless model with the kW rating which meets the peak demand (GPM) and required temperature rise (°FΔT) for your application.

Step 3: Choose the voltage and phase power supply available. Note the total amperage draw of the unit and verify availability.

Voltage De-Rating Factors

Rated Voltage	Applied Voltage	De-Rating Factor
600 V	575 V	92%
600 V	550 V	84%
480 V	460 V	92%
480 V	440 V	84%
240 V	230 V	92%
240 V	220 V	84%
240 V	208 V	75%

When the actual supply voltage (applied voltage) is different than the design voltage (rated voltage) the resulting kW output will be affected. Please see the chart for typical voltage de-rating factors, or use the following formula.

$$\frac{\text{Applied Voltage}^2}{\text{Rated Voltage}^2} \times \text{Rated kW} = \text{kW output at applied voltage}$$

Expeditor TX/HX Model Number Designation

MODEL	See pages 5–6 for available kW and heating element combinations.				OPTIONAL EQUIPMENT
	KW RATING	NUMBER OF HEATING ELEMENTS	VOLTAGE / PHASE		
JTX = 0.2 GPM Min 8.0 GPM Max	008 – 054	2	Single Phase	Balanced 3Φ	Write/type optional equipment code in the gray box below in alphabetical order. For multiple options separate codes with a dash (-).
JHX = High Flow 0.5 GPM Min 40 GPM Max		3	RS = 208/1	R = 208/3	
		6	S = 240/1	T = 240/3	
				T3 = 380/3	
				T7 = 415/3	
				T5 = 440/3	
				T4 = 480/3	
				T6 = 600/3	

Example: JTX024-3T4-C35

A Hubbell Expeditor JTX tankless electric water heater rated at 24 kW with 3 heating elements and powered with 480 volt, three phase, 60 Hz. With optional BACnet communication module with T1000 digital controller.

Optional Equipment

Note: Optional equipment must be called out in the written specifications, use the codes below.

Controller

C35 BACnet communication module with T1000 digital controller

C51 Remote Control Display allows the heater to be installed in a remote location. The 3" x 5" NEMA 4 display enclosure can be located up to 25' from the heater

General

G16 NEMA 4 or NEMA 4X rating

Please note: Optional equipment may impact overall dimensions and weight. Please request submittal drawing from factory.

Available Accessories

Tankless Valve Kit: Inlet and outlet valve assembly simplifies installation. Includes unions, shut offs, check valve, drain ports and pressure relief valve. For 3/4" order part number LFTWH-UT-HC For 1" order part number TANKLESS VALVE KIT 1

Thermostatic Mixing Valve: ASSE 1070 code compliant Thermostatic mixing valve to increase the amount of hot water available. Valve is 1/2" (-UT) size and adjustable from 80–120°F. Typically used when supplying hot water to multiple lavatories from a single water heater. Order part number LFMMVM1-UT

Fill out form below to order accessories.

Accessories Name _____

Part # _____

Accessories Name _____

Part # _____

Accessories Name _____

Part # _____