



## Light Duty Commercial Electric Water Heater

**6–55 gallon capacity, up to 12 kW, single phase and three phase options available**

**HydraStone™ cement lining provides longer tank life**

**High impact composite jacket eliminates damage during transit and installation and cannot rust or corrode**

**Copper-silicon tappings cannot rust or corrode**

- Polyurethane foam insulation reduces heat loss
- Built-in heat trap lowers operating costs
- DOE compliant
- Full five (5) year Non Pro-Rated tank warranty is standard
- Full ten (10) year Non Pro-Rated tank warranty can be specified for extended protection

### Applications

Office buildings, schools, hospitals, industrial facilities, hotels, and much more.



ENDURANCE SERIES

### A long lasting, trouble-free water heater

The Hubbell Endurance E water heater has a number of features not found in other conventional heaters making it better suited to resist the corrosive effects of hot water. The heart of the Endurance E is a superior storage vessel with HydraStone™ cement lining, solid copper-silicon threaded tank openings and a built-in heat trap, all of which ensure a longer lasting and energy efficient water heater.

### Over 100 years of water heating expertise

Hubbell water heaters are the right choice for your commercial and industrial applications. We have water heating solutions for most energy sources with storage capacities from 1–10,000 gallons — all designed, engineered, and manufactured for reliability and longevity coupled with unparalleled support and service.

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



## The Difference: HydraStone™ Cement Lining

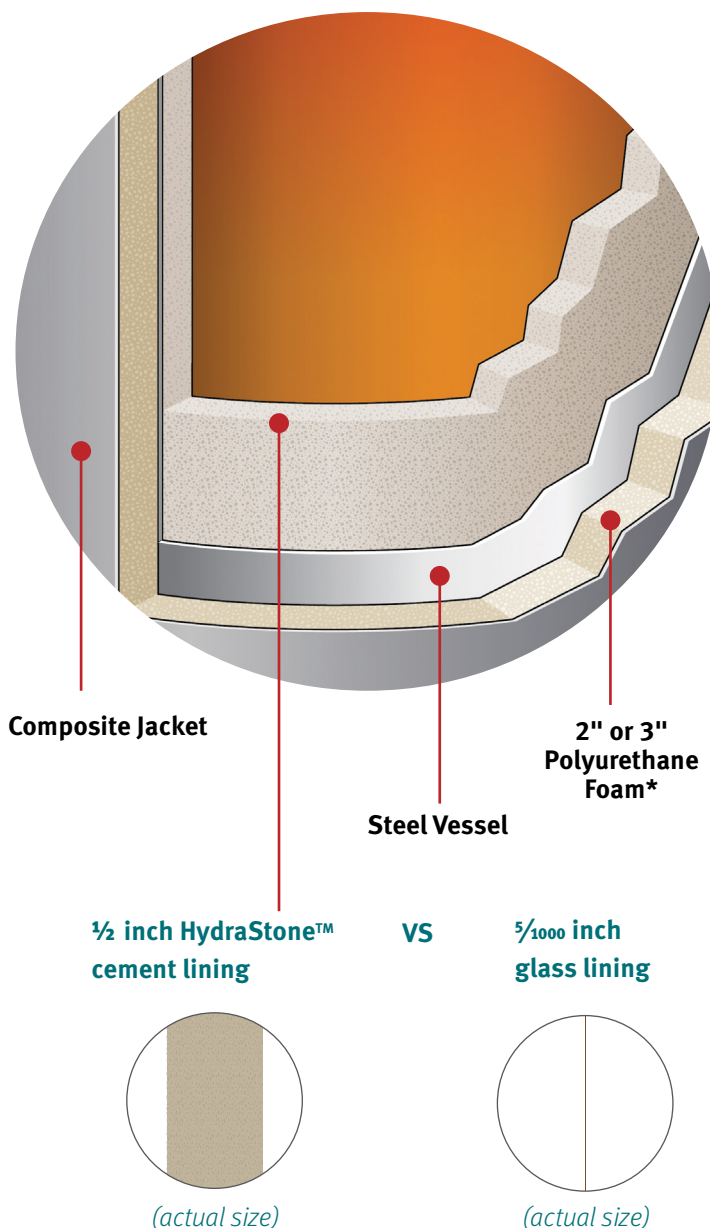
**Cement lined tanks offer significant longevity, trouble-free operation and a lower lifetime cost.**

**The type of protective lining** is the single most important feature when determining the quality of any water heater. The ability of a lining to protect the steel tank is primarily based on its thickness and complete coverage of all steel surfaces.

**A glass lined tank uses only  $\frac{5}{1000}$  inches of glass (the thickness of a sheet of paper)** which does not cover all internal surfaces. To compensate, all glass lined tanks require a sacrificial anode rod which must be periodically inspected and replaced.

**Our tanks are lined with a minimum of  $\frac{1}{2}$  inches of high density HydraStone cement – 100 times thicker than glass lining.** Full coverage is achieved by injecting the precise amount of HydraStone cement into each tank and then centrifugally spinning it at 250 RPM to ensure complete and uniform coverage. This process provides maximum protection from the corrosive effects of hot water. Additionally, cement lined tanks do not require a sacrificial anode, eliminating periodic inspections and replacement costs associated with glass lined tanks.

**Our water heater tanks are constructed with solid non-ferrous copper-silicon tank tappings** which are impervious to the corrosive effects of hot water. Glass-lined tanks have steel tappings which are vulnerable to corrosion.



\*6, 10 and 20 gallon capacities have 2" polyurethane foam, 30 gallon and above have 3"

## Heater Specifications

<b>Tank</b>	HydraStone Cement Lined Steel
<b>Volumes</b>	6, 10, 19, 30, 40 and 55 gallons
<b>Orientation</b>	Vertical, horizontal option available
<b>Voltages</b>	120–480 Volt
<b>Phases</b>	1Φ or 3Φ
<b>Inlet Size</b>	3/4" Female NPT
<b>Outlet Size</b>	3/4" Male NPT
<b>Drain Size</b>	3/4" GHT
<b>Relief Valve Size</b>	3/4" Female NPT
<b>Relief Valve Type</b>	T&P, 210°F, 150 psi
<b>Thermostat Range</b>	110–170°F (surface)
<b>Hi-Limit</b>	190°F Manual Reset
<b>Design WP</b>	150 psi
<b>Design TP</b>	300 psi
<b>Elements</b> 1Φ or 3Φ open delta 3Φ balanced	Copper sheathed Incoly sheathed
<b>Insulation</b>	<ul style="list-style-type: none"> <li>• 3" Polyurethane Foam</li> <li>• 2" Polyurethane Foam for 6, 10, and 19 gallon tanks</li> </ul>
<b>Tank Warranty</b>	
<b>Standard</b>	5 year Non Pro-Rated
<b>Optional</b>	10 year Non Pro-Rated
<b>Electrical Warranty</b>	1 Year
<b>Jacket</b>	High Impact Colorized Composite
<b>Finish</b>	White with Black Trim

Under counter/low boy sizes available – see chart on page 4.

For horizontal ceiling hung or floor mounted see Endurance [EH/SEH brochure](#).

## Standard Features

### Tank

The Hubbell Endurance E tank is welded heavy steel construction designed for 150 psi working pressure and tested to 300 psi. All tank openings are non-ferrous solid copper-silicon and are resistant to the corrosive effects of hot water.

### Plumbing

A 3/4" combination cold water inlet and drain, with non-corrosive strata flow diffuser which prevents incoming cold water from mixing too rapidly with the hot water in the tank and assures delivery of more hot water – not lukewarm water.

A 3/4" hot water outlet with a uniquely designed built-in heat trap prevents heated water from radiating through the piping during standby periods.

### Electrical

Copper sheathed (single phase or three phase open delta) or incoly sheathed (three phase balanced) immersion heating elements with low watt density for prolonged life – up to 10 kW in 120, 208, 240, 277, 480 volt single phase and 3 phase (see chart for details). An adjustable surface thermostat operates in 110–170°F range. Integral hi-limit with manual reset button for over-temperature protection is factory set at 190°F. Single phase upper and lower element configurations are factory wired for non-simultaneous operation. Three phase are wired for simultaneous operation.

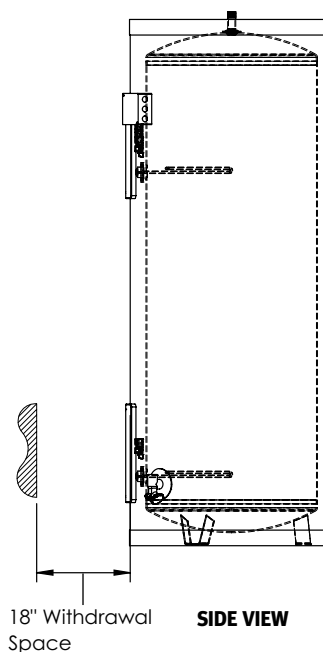
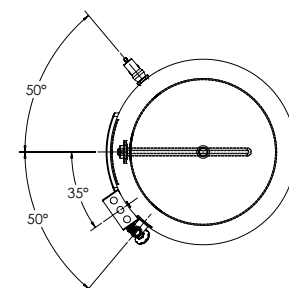
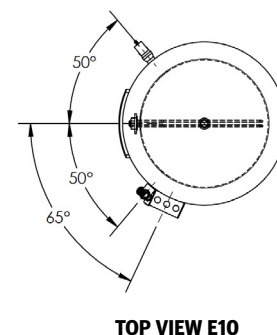
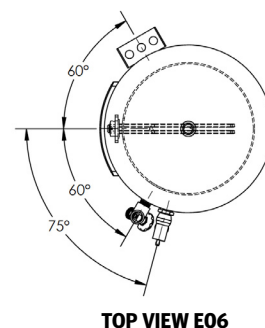
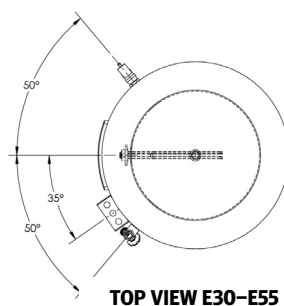
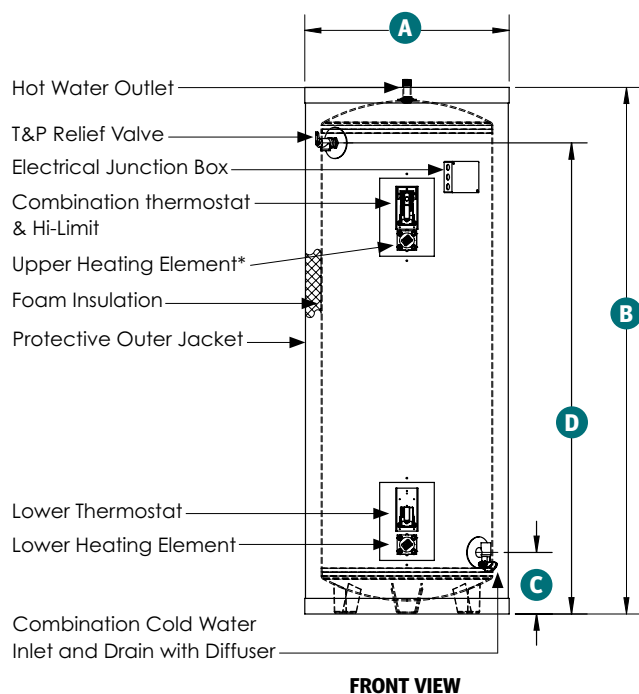
### Insulation

Meets the new NAECA III efficiency requirements. Highly efficient polyurethane foam insulation meets or exceeds the requirements of ANSI/ASHRAE/IESNA 90.1–2007 standards for energy efficiency and heat loss. Insulation R value = 7.2/inch

### Jacket

The exterior protective jacket is constructed from composite material which cannot rust or corrode and does not require painting.

## Dimensions



\* Three phase balanced includes only Lower Heater Element.

## Endurance E Dimensional Data

Base Model Number	Storage Capacity (Gallons)	Dimensions (inches)				Shipping Weight (lbs.)
		Overall Diameter "A"	Overall Height "B"	Floor to Inlet "C"	Floor to T&P "D"	
E06	6	15	18.0625	6.125	12.875	105
E10	10	20	21.5	7.5	14.75	120
E20	19	20	32.75	7.5	26.75	150
E30	30	22.75	41.625	7.5	34.25	225
E40	40	22.75	57.25	7.5	50	240
E55	55	25	59.25	7.875	50.875	375
E30U	30	25	34.25	7	24	205
E40U	40	28	31.75	7	24	270
E50U	50	30	37.25	7	27	300

Under counter options

### Notes:

- 120 volt models are available in 1500, and 2500 Watts only.
- The 6, 10, and 19 gallon models are available in lower element design only and come standard with 2" insulation. All other sizes have both upper and lower element banks of identical wattage and are wired for non-simultaneous operation and come standard with 3" insulation.
- 6 gallon available in single phase only.
- For under counter models E30U, E40U, and E50U the hot water outlet is located on the side.

All information is subject to change without notice. Consult factory for submittal drawings.

## kW and Amperage Selection Charts

**Note:** 1 kW will heat 4.1 GPH at 100°F rise

### 6 Gallon kW and Amperage (Amperage shown in chart below indicates available models)

SINGLE ELEMENT	kW	Recovery (GPH)	1 Phase Voltages				
			120	208	240	277	480
	1	4		5		4	
	1.5	6	13		6		3
	2	8		10		7	4
	2.5	10	21	12	10		
	3	12		14	13		6
	3.5	14		17	15	13	
	4	16		19	17	14	
	4.5	18			19		
	5	21			21		10
	6	25					13

XX = Amperages shown in red use an Immersion Thermostat, all others use a Surface Thermostat



### 10 and 20 Gallon kW and Amperage Chart (Amperage shown in chart below indicates available models)

SINGLE ELEMENT	kW	Recovery (GPH)	1 Phase Voltages					3 Phase Voltages – Balanced (lower element only)		
			120	208	240	277	480	208	240	480
	1	4		5	4	4				
	1.5	6	13	7	6	5	3			
	2	8	17	10	8	7	4	6		
	2.5	10	21	12	10	9	5			
	3	12		14	13		6	8	7	
	3.5	14		17	15	13	7			
	4	16		19	17	14	8	11	10	5
	4.5	18		22	19	16	9			
	5	21		24	21	18	10	14	12	6
	6	25		29	25	22	13	17	14	7
	8	33		38	33	29		22	19	10
	10	41			42	36			24	12

Contactor Required
 XX = Amperages shown in red use an Immersion Thermostat, all others use a Surface Thermostat

All information is subject to change without notice. Consult factory for submittal drawings.



### 30 Gallon kW and Amperage Chart *(Amperage shown in chart below indicates available models)*

kW	Recovery (GPH)	1 Phase Voltages (Dual element non-simultaneous standard)					3 Phase Voltages (Single element balanced with contactor(s))			3 Phase Voltages (Dual element simultaneous open delta)		
		120	208	240	277	480	208	240	480	208	240	480
1	4		5	4	4							
1.5	6	13	7	6	5	3						
2	8	17	10	8	7	4	6	5		8	7	
2.5	10	21	12	10	9	5						
3	12		14	13		6	8	7		13	11	5
3.5	14		17	15	13	7						
4	16		19	17	14	8	11	10	5	17	14	7
4.5	18		22	19	16	9						
5	21		24	21	18	10	14	12	6	21	18	9
6	25		29	25	22	13	17	14	7	25	22	11
7	29									29	25	13
8	33		38*	33*	29*		22	19	10	33	29	14
9	37									37	32	16
10	41			42*	36*			24	12	42	36	18
12	49									50	43	22

\* Single element only    XX = Amperages shown in red use an Immersion Thermostat, all others use a Surface Thermostat

### 40 and 55 Gallon kW and Amperage Chart *(Amperage shown in chart below indicates available models)*

kW	Recovery (GPH)	1 Phase Voltages (Dual element non-simultaneous standard)					3 Phase Voltages (Single element balanced with contactor(s))			3 Phase Voltages (Dual element simultaneous open delta)		
		120	208	240	277	480	208	240	480	208	240	480
1	4		5	4	4							
1.5	6	13	7	6	5	3						
2	8	17	10	8	7	4	6	5		8	7	
2.5	10	21	12	10	9	5						
3	12		14	13		6	8	7		13	11	5
3.5	14		17	15	13	7						
4	16		19	17	14	8	11	10	5	17	14	7
4.5	18		22	19	16	9						
5	21		24	21	18	10	14	12	6	21	18	9
6	25		29	25	22	13	17	14	7	25	22	11
7	29									29	25	13
8	33		38*	33*	29*		22	19	10	33	29	14
9	37									37	32	16
10	41			42*	36*			24	12	42	36	18
12	49									50	43	22

\* Single element only    XX = Amperages shown in red use an Immersion Thermostat, all others use a Surface Thermostat

All information is subject to change without notice. Consult factory for submittal drawings.

## Endurance E Model Number Designation 6, 10, and 20 Gallon

MODEL	MODEL NUMBER	STYLE	See charts on pages 5 & 6		TANK	See charts on pages 5 & 6		OPTIONAL EQUIPMENT
			LOWER KW*			VOLTAGE / PHASE		
E 2" Foam Insulation	6	Leave blank for standard  A = ASME	1		SL = HydraStone cement lined tank	A = 120/1	Write/type optional equipment code in the gray box below in alphabetical order. For multiple options separate codes with a dash (-). Available options are on page 8.	
	10		1.5		CN = Solid copper-nickel tank	RS = 208/1		
	20		2		SS = Stainless steel 316L	S = 240/1		
			3		CN and SS tanks come standard with galvanneal jacket and fiberglass insulation.	W = 277/1		
			3.5			T4S = 480/1		
			4			Balanced 3Φ and 3Φ open delta**		
			4.5			R = 208/3		
			5			T = 240/3		
			6			T4 = 480/3		

E

\* 6, 10 and 20 gallon models are lower element only

\*\* 10 and 20 gallon available in 3 phase balanced only

## Endurance E Model Number Designation 30–55 Gallon

MODEL	MODEL NUMBER	STYLE	See charts on pages 5 & 6		TANK	See charts on pg. 5 & 6	OPTIONAL EQUIPMENT
			UPPER KW	LOWER KW		VOLTAGE / PHASE	
E 3" Foam Insulation	30	Leave blank for standard  A = ASME  U = Under counter Available in 30, 40 and 50 gallon sizes only	0**	1	SL = HydraStone cement lined tank	A = 120/1	Write/type optional equipment code in the gray box below in alphabetical order. For multiple options separate codes with a dash (–). Available options are on page 8.
	40		1.5	1.5	CN = Solid copper-nickel tank  SS = Stainless steel 316L  <i>CN and SS tanks come standard with galvanneal jacket and fiberglass insulation.</i>	RS = 208/1	
	50†		2	2		S = 240/1	
	55		3	3		W = 277/1	
			3.5	3.5	T4S = 480/1		
			4	4	Balanced 3Φ and 3Φ open delta  R = 208/3  T = 240/3  T4 = 480/3		
			4.5	4.5			
			5	5			
			6	6			
				7			
				8			
				9			
				10			
				12			

E

\*\* Upper kW "0" is only available in balanced 3 phase    <sup>†</sup> 50 gallon only available in ASME or Under Counter

### Example: E55A-4.5-4.5SLS-C1-V10

Model E with 3" foam insulation storage tank of 55 gallons, ASME certified, with 4.5 kW upper and lower heating elements, HydraStone cement lined steel storage tank, 240 V, single phase, 60 Hz power. Includes optional immersion thermostat and optional 1-½" MALE NPT inlet/outlet.

All information is subject to change without notice. Consult factory for submittal drawings.

## Optional Equipment

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

### Controller

<b>C1</b>	Immersion Thermostat (100°F - 190°F)
<b>C2</b>	Low Range Immersion Thermostat (30°F - 110°F)
<b>C3</b>	Immersion Adjustable Safety Hi-Limit Cutout with Manual Reset (100°F - 240°F)
<b>C6</b>	Off-Peak Wiring for Load Management Savings
<b>C30</b>	Heating Elements Wired for Simultaneous Operation
<b>C31</b>	Leak Detection - Includes Sensor Pad and Dry Contact for BMS Notification
<b>C32</b>	Leak Detection - Includes Sensor Pad, Dry Contact for BMS Notification, and 3/4" Solenoid Valve
<b>C35</b>	BACnet Communication Module with T1000 Digital Controller

### Electrical

<b>E5</b>	Three Phase Open Delta Wiring (Must Be Simultaneous Operation; Reference 3-Phase kW Selection Charts on Previous Pages)
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### General

<b>G1</b>	Combination Temperature & Pressure Gauge: 3.5" Dial, 70°F - 250°F, 0 - 200 PSI, Tank Mounted
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### Vessel

<b>V1</b>	NSF5 Approved Legs
<b>V10</b>	1-1/2" Male NPT Inlet and Outlet Water Connections
<b>V15</b>	Additional 3/4" FNPT Tappings
<b>V16</b>	Additional 1-1/2" FNPT Tappings
<b>V20</b>	Integrally Welded Seismic Attachment Points

**Note:** Horizontal ceiling hung or floor mount available – see [EH/SEH brochure](#).

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

## Available Accessories

**Wall Shelf:** A wall shelf is available for 6–40 gallon models only, to order specify part number "WALL SHELF"

**10-year Warranty:** 10-year non pro-rated tank warranty, specify part number "VESSEL WARRANTY"

Fill out form below to order accessories.

Accessories Name

Part #

Accessories Name

Part #