FEATURES

■ Built For Safe Operation In A Hazardous Location
  ✓ UL and CSA listed housing rated for operation in
    Class I, Division 1 & 2, Groups B, C, & D
    (Class I, Zones 1 & 2, Groups II B&H, II B & II A)
    Class II, Division 1 & 2, Groups E, F, & G
    (Zones 21 & 22, Groups III C & III B)

■ Heavy Duty Construction
  ✓ Hydrastone cement lining provides long tank life
  ✓ Copper-silicon alloy tappings cannot rust or corrode
  ✓ High impact composite jacket cannot rust or corrode and eliminates damage during installation and transit

■ Packaged System
  ✓ All controls factory selected and wired for efficient installation and operation
  ✓ Ready for electrical and plumbing service connections

APPLICATIONS

■ Refineries
■ Drilling Platforms
■ Paper and Pulp Mills
■ Industrial Facilities

A Long Lasting Water Heater For Your Hazardous Location

The Hubbell ER hazardous location water heater is the right choice for applications in hazardous atmosphere locations. All operating controls are housed within the heavy duty applicable hazardous location enclosure to ensure safe operation in a hazardous location. Furthermore, because of the exceptional corrosion resistant properties of the Hubbell Hydrastone cement lined tank, the ER model water heater is proven to last longer than other conventional tank designs.

When you specify and install a Hubbell Model ER for a hazardous location you will have confidence in knowing that the owner will be provided with a quality product that is a safe, long lasting and trouble-free source for hot water.
Standard Equipment

- Hazardous location electrical enclosure rated for operation in a Class I, Division 1 & 2, Groups B, C, & D (Class I, Zones 1 & 2, Groups II B&H, II B & II A) Class II, Division 1 & 2, Groups E, F, & G (Zones 21 & 22, Groups III C & III B) listed for hazardous area locations.
- Heavy Duty ½” thick Hydrastone cement lined storage tank for long service life
- Non-ferrous solid copper-silicon tank openings
- Built-in heat trap to improve operating efficiency
- High quality long lasting immersion heating elements
- Magnetic contactor (3Φ only)
- Adjustable temperature controller (110-170°F)
- 2” Polyurethane foam insulation for minimum standby heat loss
- High impact colorized composite protective jacket
- ASME/CSA rated combination temperature and pressure relief valve set at 150 psi, 210°F
- ¾” Male NPT inlet and outlet connections (except 45, 54

Optional Equipment

- 1. Solid 90/10 Copper-Nickel tank for maximum tank life
- 2. 1½” Male NPT brass inlet/outlet water connections (if not standard)
- 3. Type 316L Stainless Steel tank construction.
- 4. Low water cut out to disengage electrically the heating element in the event of no/low water condition in the storage tank
- 5. Integrally welded seismic attachment points
- 6. 3” Foam Insulation
- 7. Alternate element sheath material (Incoloy, Stainless Steel, Inconel, other). See element brochure
- 8. Outdoor weather package
- 9. For additional hazardous location ratings consult factory
- 10. Horizontal orientation

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

Formulas To Solve For:

KW Required

\[ \text{GPH} \times \frac{\Delta T}{\text{oF}} \times 0.00244 = \text{KW} \]

Temperature Rise

\[ \text{KW} \times 410 \div \text{GPH} = \text{oF Rise} \]

Recovery

\[ \text{KW} \times 410 \div \text{°F} \Delta T \text{ Rise} = \text{GPH} \]

Note: 1 KW will heat 4.1 GPH at a 100°F Rise

Model Number Designation

Example: ER10-1.5SLA
Is a hazardous location model ER water heater with 10 gallons of storage and 1.5 KW heating element. It is a cement lined steel vessel and has an electrical rating of 120 volt 1 phase.
Model ER — Standard Specifications

Tank: Cement Lined Steel
Capacities: 10 - 5000 Gallons
Orientation: Vertical
Voltages: 120 - 600 V
Phase: 1 or 3 Φ
Inlet Size: ¾" Female NPT
Outlet Size: ¾" GHT
Drain Size: ¾" Female NPT
Relief Valve Opening: ¾" Female NPT
Relief Valve Type: T&P, 210°F, 150 psi

Thermostat Type: Adjustable
Thermostat Range: 110-170°F
Hi-Limit: 190°F
Design Pressure: 150 psi WP, 300 psi TP
Elements: High Quality Immersion Electric
Insulation: 2" Polyurethane Foam

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Outline Dimensions

<table>
<thead>
<tr>
<th>Base Model</th>
<th>Storage Capacity (Gallons)</th>
<th>KW Selection &amp; Electrical Supply</th>
<th>Dimensions (inches)</th>
<th>Shipping Weight (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ER10</td>
<td>10</td>
<td>120 V 1 Phase, 208/480V 1 Phase</td>
<td>Up To 1.5</td>
<td>20 21 7 15 160</td>
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<tr>
<td>ER20</td>
<td>19</td>
<td>120 V 1 Phase, 208/480V 1 Phase</td>
<td>Up To 1.5</td>
<td>20 33 7 27 200</td>
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<tr>
<td>ER30</td>
<td>30</td>
<td>120 V 1 Phase, 208/480V 1 Phase</td>
<td>Up To 2.3</td>
<td>20 41.5 7 34 230</td>
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<td>ER40</td>
<td>40</td>
<td>120 V 1 Phase, 208/480V 1 Phase</td>
<td>Up To 2.3, 6, 8, 10</td>
<td>20 58.75 7 51 280</td>
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<td>ER50</td>
<td>50</td>
<td>120 V 1 Phase, 208/480V 1 Phase</td>
<td>1.5</td>
<td>22.75 51 7 43 295</td>
</tr>
<tr>
<td>ER65</td>
<td>65</td>
<td>120 V 1 Phase, 208/480V 1 Phase</td>
<td>Up To 58</td>
<td>26 48 8 40 360</td>
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<td>ER80</td>
<td>80</td>
<td>120 V 1 Phase, 208/480V 1 Phase</td>
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<td>26 69.5 8 62 425</td>
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<tr>
<td>ER120</td>
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<td>28 69.25 8 62 475</td>
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</table>

Note: For alternative voltages, KW sizes and/or storage capacities above 119 gallons please consult factory.
# Master Specification: Model ER

## GENERAL

Provide a quantity of ____________ hazardous location electric water heater(s) Model No. ________________ as manufactured by HUBBELL Electric Heater Co., Stratford, CT. The entire unit is to be complete with all operating controls and require only plumbing and electrical service connections. The heater is designed specifically for installation in a hazardous location. All operating controls are to be housed within an electrical control panel rated for operation in a Class I, Division 1 & 2, Groups B, C, & D (Class I, Zones 1 & 2, Groups II B&H, II B & II A), Class II, Division 1 & 2, Groups E, F, & G (Zones 21 & 22, Groups III C & III B); hazardous area and is UL and CSA listed. The tank shall be all welded steel commercial construction designed for 150 psi working pressure and contain _______ gallons of storage. The pressure vessel is to be lined with seamless Hydrastone cement to a minimum thickness of ½” on 100% of all interior tank surfaces. An Optional Specification: tank to be fabricated from solid copper-alloy, Type 304 or 316L stainless steel) and does not require any type of anodic protection. The tank shall be fabricated with non-ferrous copper-silicon threaded tappings and non-ferrous inlet and outlet piping for maximum corrosion resistance. Steel tank tappings will not be acceptable. The entire tank is to be insulated with a minimum of 2” thick polyurethane foam insulation and exceed the latest ASHRAE standard for stand-by heat loss. The complete heater shall be supplied with a high impact colorized composite protective jacket which cannot rust or corrode and does not require painting.

The cold water inlet shall be ¾” Female NPT (Optional Specification: 1½” Male NPT) and include a non-corrosive strata-flow diffuser which prevents incoming cold water from mixing too rapidly with hot water in the tank. A ¾” hose connection drain is supplied. The hot water outlet shall be ¾” Male NPT (Optional Specification: 1½” Male NPT) and shall include a factory installed built-in heat trap (not available on 1½” models) to prevent water from radiating through the piping during stand-by periods. A separate ¾” Female NPT tapping is to be provided for relief valve installation. An ASME/CSA rated automatic reseating combination temperature and pressure safety relief valve set at 150 psi and 210°F shall be factory supplied.

## RECOVERY

The heating element(s) shall be high quality electric immersion type, and shall be rated at_______ KW which will heat _______ GPH of water at _______ °F Rise (_______ °C to _______ °C).

## ELECTRICAL

The heater shall be designed to operate at _______ volts _______ phase _______ Hz (balanced) with all necessary operating controls factory mounted, wired and tested. Heaters operating at 3 phase power shall have each circuit independently operated through a definite purpose magnetic contactor having a resistive load rating exceeding the ampere rating of that particular circuit. Water temperature shall be controlled through an adjustable immersion thermostat 100-180°F or 30-110°C. An over-temperature manual reset Hi-Limit shall be factory installed to disconnect the heating element in the event of an over-temperature condition in the pressure vessel.

In addition, the water heater shall be supplied with the following optional features:

- [ ] Option
- [ ] Option
- [ ] Option

The water heater manufacturer shall warranty all electrical components against defects in workmanship and material for a period of one (1) year from date of start-up, and the pressure vessel for a full three (3) years Non Pro-Rated from date of start-up, provided that the unit is started within three (3) months of date of shipment and installed and operated within the scope of the tank design and operating capability. Each water heater shall be shipped with a complete set of installation and operating instructions including spare parts list and approved drawings.

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**Committed to continuous improvement...**

Continuing research results in product improvement; therefore specifications are subject to change without notice. For the most updated information, consult the factory directly.

**Made in the USA**

**Certified ISO 9001**