# SB-E Indirectly Fired Water Heater Tanks

## Water Heater Specifications

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Quantity</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>234110</td>
<td></td>
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<tr>
<td>234111</td>
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</tbody>
</table>

### Specifications

<table>
<thead>
<tr>
<th>Item Number</th>
<th>SB 300 E</th>
<th>SB 400 E</th>
</tr>
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<tbody>
<tr>
<td>234110</td>
<td>234111</td>
<td></td>
</tr>
</tbody>
</table>

#### Hydraulic data

- **Storage Capacity**
  - SB 300 E: 79.3 gal (300 l)
  - SB 400 E: 105.6 gal (400 l)

- **Volume of heat exchanger**
  - SB 300 E: 2.4 gal (9.5 l)
  - SB 400 E: 2.9 gal (11.1 l)

- **Surface area of heat exchanger**
  - SB 300 E: 16.1 ft² (1.5 m²)
  - SB 400 E: 20.6 ft² (1.9 m²)

#### Heating element

- **Heating element voltage**
  - 220–240 V

- **Heating capacity**
  - 3.0 kW (10,239 Btu/hr)

- **Frequency**
  - 60 Hz

- **Rated current**
  - 12.5 A

- **Required circuit breaker**
  - 20 A

- **Heating element type**
  - Dome element

- **Heating element material**
  - Ceramic

- **Temperature control**
  - Knob with °F & °C scale under the heating element cover

- **Set range of thermostat**
  - 86–167 °F (30–75 °C)

#### Miscellaneous

- **Pressure drop at 4.4 gpm**
  - SB 300 E: 3.7 ft. head (11 kPa)
  - SB 400 E: 4.0 ft. head (12 kPa)

- **Heat exchanger power rating**
  - Inlet 50 °F, 140 °F Outlet
    - SB 300 E: 165,000 Btu/hr (48.4 kW)
    - SB 400 E: 183,000 Btu/hr (53.7 kW)

- **Recovery rate (maximum input)**
  - SB 300 E: 234 gal/hr (885 l/hr)
  - SB 400 E: 258 gal/hr (976 l/hr)

- **Recover rate (electric element only)**
  - SB 300 E: 13.7 gal/hr (51.8 l/hr)
  - SB 400 E: 13.7 gal/hr (51.8 l/hr)

- **Max. tank pressure**
  - 145 psi (10 bar)

- **Max. heat exchanger pressure**
  - 145 psi (10 bar)

- **Max. tank temperature**
  - 203 °F (95 °C)

- **Tank heat loss in 24 hours**
  - SB 300 E: 2.8 kW (9,553 Btu)
  - SB 400 E: 3.0 kW (10,236 Btu)

- **Empty weight**
  - SB 300 E: 313 lb (142 kg)
  - SB 400 E: 399 lb (181 kg)

- **Filled weight**
  - SB 300 E: 1,010 lb (458 kg)
  - SB 400 E: 1,334 lb (605 kg)

- **Type of anode**
  - Magnesium with wear indicator

#### Dimensions

- **Height**
  - SB 300 E: 61 ½ in (1552 mm)
  - SB 400 E: 60 ⅞ in (1544 mm)

- **Diameter**
  - SB 300 E: 25 ⅜ in (650 mm)
  - SB 400 E: 29 ⅞ in (750 mm)

- **Insulation thickness**
  - 2 in (50 mm)

- **Diameter without insulation**
  - SB 300 E: 21 ⅞ in (550 mm)
  - SB 400 E: 25 ⅞ in (650 mm)
Dimensions

<table>
<thead>
<tr>
<th>Type</th>
<th>SB 300 E</th>
<th>SB 400 E</th>
<th>Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Height of tank with insulation</td>
<td>59.3&quot; (1503 mm)</td>
<td>59&quot; (1499 mm)</td>
</tr>
<tr>
<td>B</td>
<td>Height of tank without insulation</td>
<td>57.3&quot; (1456 mm)</td>
<td>57&quot; (1453 mm)</td>
</tr>
<tr>
<td>C</td>
<td>Height to thermometer</td>
<td>64.3&quot; (1635 mm)</td>
<td>64.3&quot; (1635 mm)</td>
</tr>
<tr>
<td>D</td>
<td>Height to upper temperature sensor sleeve</td>
<td>60.5&quot; (1534 mm)</td>
<td>62.7&quot; (1600 mm)</td>
</tr>
<tr>
<td>E</td>
<td>Height to electric element opening</td>
<td>52.8&quot; (1342 mm)</td>
<td>54.6&quot; (1387 mm)</td>
</tr>
<tr>
<td>F</td>
<td>Height to lower temperature sensor sleeve</td>
<td>23.6&quot; (599 mm)</td>
<td>19.6&quot; (500 mm)</td>
</tr>
<tr>
<td>G</td>
<td>Height to clean-out port</td>
<td>13.3&quot; (335 mm)</td>
<td>12.4&quot; (315 mm)</td>
</tr>
<tr>
<td>H</td>
<td>Height to cold water inlet</td>
<td>0.3&quot; (129 mm)</td>
<td>4.5&quot; (114 mm)</td>
</tr>
<tr>
<td>I</td>
<td>Height to heat exchanger lower port</td>
<td>10.6&quot; (270 mm)</td>
<td>11&quot; (280 mm)</td>
</tr>
<tr>
<td>J</td>
<td>Height to auxiliary heat source lower port</td>
<td>16.6&quot; (422 mm)</td>
<td>15&quot; (381 mm)</td>
</tr>
<tr>
<td>K</td>
<td>Height to auxiliary heat source upper port</td>
<td>25.6&quot; (655 mm)</td>
<td>25.9&quot; (658 mm)</td>
</tr>
<tr>
<td>L</td>
<td>Height to heat exchanger upper port</td>
<td>30.5&quot; (775 mm)</td>
<td>32.3&quot; (820 mm)</td>
</tr>
<tr>
<td>M</td>
<td>Height to hot water outlet (overall height)</td>
<td>41.1&quot; (1049 mm)</td>
<td>41.9&quot; (1064 mm)</td>
</tr>
<tr>
<td>N</td>
<td>Height to T&amp;P valve port</td>
<td>48.3&quot; (1228 mm)</td>
<td>49.5&quot; (1257 mm)</td>
</tr>
<tr>
<td>O</td>
<td>Tank diameter without insulation</td>
<td>21.7&quot; (550 mm)</td>
<td>25.6&quot; (650 mm)</td>
</tr>
<tr>
<td>P</td>
<td>Tank diameter with insulation</td>
<td>25.6&quot; (650 mm)</td>
<td>25.6&quot; (650 mm)</td>
</tr>
<tr>
<td>Q</td>
<td>Foot height</td>
<td>0.9-1.3&quot; (22-34 mm)</td>
<td>0.9-1.3&quot; (22-34 mm)</td>
</tr>
</tbody>
</table>

1. Cold water inlet
2. Hot water outlet
3. Clean-out port
4. Electric heating element
5. Analog thermometer
6. Lower heat exchanger port
7. Upper heat exchanger port
8. Lower auxiliary port
9. Upper auxiliary port
10. Upper temperature sensor sleeve
11. Lower temperature sensor sleeve
12. T&P valve port
13. Junction box
14. Anode replacement indicator

Warranty

For full warranty text, see page 3.
Warranty

Subject to the terms and conditions set forth in this limited lifetime warranty, Stiebel Eltron, Inc. (the “Manufacturer”) hereby warrants to the original purchaser (the “Owner”) that each storage tank (the “Tank”) shall be free from defects in the Manufacturer’s materials or workmanship for a period of:

1. (10 Years) from the date of purchase for single, two-, and three-family residential installations
2. (5 Years) from the date of purchase for all other installations
3. (Excluded) sacrificial or electronic anode

As Owner’s sole and exclusive remedy for the above warranty, Manufacturer shall, at the Manufacturer’s discretion, either factory repair or replace the defective Tank with a replacement unit or part(s) with comparable operating features. Manufacturer’s maximum liability under all circumstances shall be limited to the Owner’s purchase price for the Tank.

This limited warranty shall be the exclusive warranty made by the Manufacturer and is made in lieu of all other warranties, express or implied, whether written or oral, including, but not limited to warranties of merchantability and fitness for a particular purpose. Manufacturer shall not be liable for incidental, consequential or contingent damages or expenses arising directly or indirectly from any defect in the Tank or the use of the Tank. Manufacturer shall not be liable for any water damage or other damage to property of Owner arising, directly or indirectly, from any defect in the Tank or the use of the Tank. Manufacturer alone is authorized to make all warranties on Manufacturer’s behalf and no statement, warranty or guarantee made by any other party shall be binding on Manufacturer.

Manufacturer shall not be liable for any damage whatsoever relating to or caused by:

1. any misuse or neglect of the Tank, any accident to the Tank, any alteration of the Tank, or any other unintended use;
2. acts of God and circumstances over which Manufacturer has no control;
3. installation of the Tank other than as directed by Manufacturer and other than in accordance with applicable building codes;
4. improper installation and/or improper materials used by any installer and not relating to defects in parts or workmanship of Manufacturer;
5. failure to maintain the Tank or to operate the Tank in accordance with the Manufacturer’s specifications;
6. failed components not originally installed by the Manufacturer as a part of the unit at the time of sale;
7. exposure to freezing conditions;
8. exposure to harmful chemicals, contaminated water, corrosive fluids or atmosphere, liquids harmful to steel tubing including improperly applied or maintained heat transfer fluids.
9. utilizing the tank as an open loop heat exchanger, e.g., do not use in drainback systems or continually pass fresh potable water through the units internal heat exchanger.
10. installing the Tank in a closed system without a properly sized and installed thermal expansion tank;
11. operating the Tank without the factory installed sacrificial anode;
12. operating the Tank under fluctuating or excessive water pressure or in the event the Tank is supplied with non-potable water for any duration;
13. operating the Tank when it is empty or partially full of potable water;
14. Installing and operating the Tank outdoors;
15. operating the Tank at temperatures higher than recommended by Manufacturer;
16. (SB E models) replacing the electric heating element with a unit not manufactured by Stiebel Eltron or greater in power than the originally installed element;
17. (SB E models) connecting the Tank to improper voltage or service;

Should owner wish to return the Tank to manufacturer for repair or replacement under this warranty, Owner must first secure written authorization from Manufacturer. Owner shall demonstrate proof of purchase, including a purchase date, and shall be responsible for all removal and transportation costs. If Owner cannot demonstrate a purchase date this warranty shall be limited to the period beginning from the date of manufacture stamped on the Tank. Manufacturer reserves the right to deny warranty coverage upon Manufacturer’s examination of the Tank. This warranty is restricted to the Owner and cannot be assigned.

Some States and Provinces do not allow the exclusion or limitation of certain warranties. In such cases, the limitations set forth herein may not apply to the Owner. In such cases this warranty shall be limited to the shortest period and lowest damage amounts allowed by law. This warranty gives you specific legal rights and you may also have other rights which vary from State to State or Province to Province.

Owner shall be responsible for all labor and other charges incurred in the removal or repair of the Tank in the field. Please also note that the Tank must be installed in such a manner that if any leak does occur, the flow of water from any leak will not damage the area in which it is installed.