

**SB-E Indirectly Fired Water Heater Tanks**

Engineer/Architect: \_\_\_\_\_ Date: \_\_\_\_\_

Job Name/Customer: \_\_\_\_\_ Phone: \_\_\_\_\_

Location: \_\_\_\_\_ Date Required: \_\_\_\_\_

Contractor: \_\_\_\_\_ Phone: \_\_\_\_\_

**Water Heater Specifications**

Item No.

Quantity

Volume

Model # SB-E \_\_\_\_\_

**Specifications**

	SB 300 E	SB 400 E
Item Number	234110	234111
Hydraulic data		
Storage Capacity	79.3 gal (300 l)	105.6 gal (400 l)
Volume of heat exchanger	2.4 gal (9.5 l)	2.9 gal (11.1 l)
Surface area of heat exchanger	16.1 ft <sup>2</sup> (1.5 m <sup>2</sup> )	20.6 ft <sup>2</sup> (1.9 m <sup>2</sup> )
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	3.7 ft. head (11 kPa)	4.0 ft. head (12 kPa)
Heat exchanger power rating	165,000 Btu/hr (48.4 kW)	183,000 Btu/hr (53.7 kW)
Inlet 50 °F, 140 °F Outlet		
Recovery rate (maximum input)	234 gal/hr (885 l/hr)	258 gal/hr (976 l/hr)
Recover rate (electric element only)	13.7 gal/hr (51.8 l/hr)	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	2.8 kW (9,553 Btu)	3.0 kW (10,236 Btu)
Empty weight	313 lb (142 kg)	399 lb (181 kg)
Filled weight	1,010 lb (458 kg)	1,334 lb (605 kg)
Type of anode	Magnesium with wear indicator	
Dimensions		
Height	61 <sup>1</sup> / <sub>8</sub> in (1552 mm)	60 <sup>13</sup> / <sub>16</sub> in (1544 mm)
Diameter	25 <sup>9</sup> / <sub>16</sub> in (650 mm)	29 <sup>1</sup> / <sub>2</sub> in (750 mm)
Insulation thickness	2 in (50 mm)	
Diameter without insulation	21 <sup>5</sup> / <sub>8</sub> in (550 mm)	25 <sup>9</sup> / <sub>16</sub> in (650 mm)

**SBB 300/400 E**

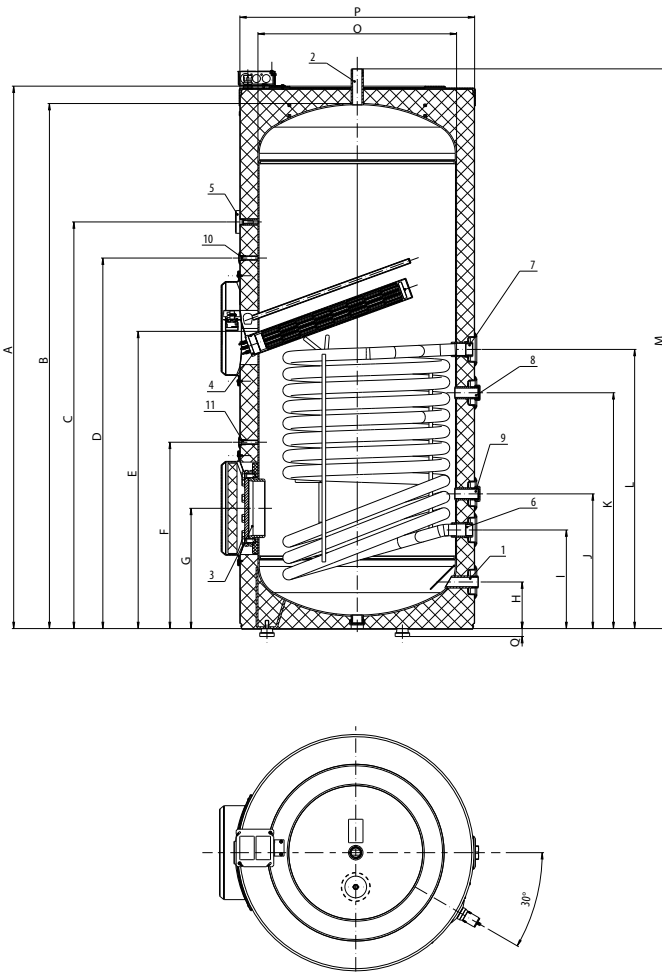
Tested and Certified by Water Quality Association against NSF/ANSI 372 for lead free compliance.

**Intertek**

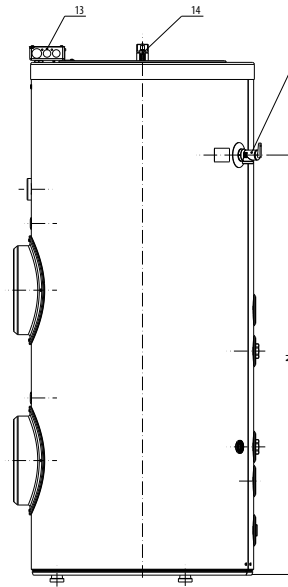
Certified to UL Std. 174  
Conforms to CAN/CSA Std. 22.2 No. 110-94

**ISO 9001  
CERTIFIED**

## Dimensions



Type		SB 300 E	SB 400 E	Connection
A	Height of tank with insulation	59.1" (1501 mm)	59" (1500 mm)	
B	Height of tank without insulation	57.3" (1456 mm)	57" (1448 mm)	
C	Height to thermometer	44.4" (1128 mm)	45.1" (1145 mm)	
D	Height to upper temperature sensor sleeve	40.5" (1028 mm)	42.7" (1085 mm)	Ø 9 mm
E	Height to electric element opening	32.5" (825 mm)	34.9" (887 mm)	
F	Height to lower temperature sensor sleeve	23.4" (518 mm)	19.6" (498 mm)	Ø 9 mm
G	Height to clean-out port	13.2" (335 mm)	12.4" (315 mm)	Ø 115 mm
H	Height to cold water inlet	5.1" (129 mm)	4.3" (110 mm)	1" NPT male
I	Height to heat exchanger lower port	10.8" (275mm)	11" (280 mm)	1" NPT female
J	Height to auxiliary heat source lower port	14.8" (375 mm)	15" (380 mm)	1" NPT male
K	Height to auxiliary heat source upper port	25.8" (655 mm)	28" (710 mm)	1" NPT male
L	Height to heat exchanger upper port	30.5" (775 mm)	32.7" (830 mm)	1" NPT female
M	Height to hot water outlet (overall height)	61.1" (1552 mm)	60.8" (1544 mm)	1" NPT male
N	Height to T&P valve port	48.3" (1228 mm)	48.3" (1228 mm)	¾" NPT female
O	Tank diameter without	21.7" (550 mm)	25.6" (650 mm)	
P	Tank diameter with insulation	25.6" (650 mm)	29.5" (750 mm)	
Q	Foot height	0.9-1.3" (22-34 mm)		



- 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.