Indirect & Solar Storage Tanks for Domestic Hot Water

New!
Single coil tanks with electric element

DHW Tanks
FOR ALL SOLAR, GEOTHERMAL OR HYDRONIC APPLICATIONS

› Heavy Gauge Steel With Porcelain Enamel Coating
› Superb Quality Results In Long Service Life Backed By A Lifetime Warranty
› Sacrificial Anode Rod
› Up To 3” R-21 Urethane Foam Insulation For Low Standby Heat Loss
› Large Clean-Out Port For Ease Of Maintenance

800.582.8423 www.stiebel-eltron-usa.com
New!
SB-E Tanks

Single Heat Exchanger with Electric Element

<table>
<thead>
<tr>
<th>DHW Tank Model</th>
<th>SB 300 E</th>
<th>SB 400 E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part number</td>
<td>234110</td>
<td>234111</td>
</tr>
</tbody>
</table>

**CONTENTS**

Storage capacity     79.3 gal (300 l) 105.6 gal (400 l)
Heat exchanger volume 2.4 gal (9.5 l) 2.9 gal (11.1 l)
Surface area of heat exchanger 16.1 ft² (1.5 m²) 20.6 ft² (1.9 m²)
Working pressure    145 psi (10 bar)
Max. pressure of boiler loop 145 psi (10 bar)

**HEATING ELEMENT**

Heating element voltage 220 – 240 V, 60 Hz
Heating capacity      10,239 Btu/hr (3.0 kW)
Rated current         12.5 A
Required circuit breaker 20 A
Heating element       Ceramic dome element
Temperature control   Knob with °F & °C scale under heating element cover
Set range of thermostat 86 – 167 °F (30 – 75 °C)

**OTHER**

Cold/hot water connection 1” male NPT
Heat exchanger & auxiliary connections 1” female NPT

**PERFORMANCE DATA**

Standby losses in 24 hours 2.8 kW (9,553 Btu) 3.0 kW (10,236 Btu)
Pressure drop at 4.4 gpm 3.7 ft. head (11 kPa) 4.0 ft. head (12 kPa)
Heat exchanger power rating Inlet 50°F, 140°F Outlet 165,000 Btu/hr (48.4 kW) 183,000 Btu/hr (53.7 kW)
Recovery rate (maximum input) 234 gal/hr (885 l/hr) 258 gal/hr (976 l/hr)
Recovery rate (electric element only) 13.7 gal/hr (51.8 l/hr) 13.7 gal/hr (51.8 l/hr)

**WEIGHTS & DIMENSIONS**

Tank weight empty      355 lb (161 kg) 432 lb (196 kg)
Tank weight full       1,051 lb (477 kg) 1,366 lb (169 kg)
Height                 61 9/16” (1552 mm) 60 13/16” (1544 mm)
Diameter               25 9/16” (650 mm) 29 1/2” (750 mm)
Insulation thickness   2” (50 mm)
Diameter without insulation 21 9/16” (550 mm) 25 9/16” (650 mm)
**Single Heat Exchanger**

- **Storage capacity**: 30 gal (113 l)
- **Max. temp. lower loop**: 266 °F (130 °C)
- **Max. temp. upper loop**: 1150 psi (10 bar)
- **Working pressure**: 150 psi (10 bar)
- **3.0 gal (11.3 l)**
- **Lower heat exchanger volume**: NA
- **Upper heat exchanger volume**: 108.6 gal (411 l)
- **Tank weight full**: 1051 lb (477 kg)
- **Height with insulation**: 66 1/8˝ (1679 mm)
- **Width with insulation**: 2325 in² (1.5 m²)
- **Flow Rate**: 285.6 gal/hr (1,081 l/hr)
- **Output**: 242,393 Btu (71 kW)
- **PERFORMANCE DATA**
  - **Cold water inlet**
  - **Thermometer well**
  - **Clean-out port**
  - **Foam insulation**
  - **Temperature sensor (lower coil)**
  - **Temperature sensor (upper coil)**
  - **Exchanger port**
  - **Clean-out port**
  - **Heat exchanger coil (upper)**
  - **Heat exchanger coil (lower)**
  - **Thermometer wall**

**DUAL HEAT EXCHANGER**

- **Storage capacity**: 80 gal (303 l)
- **Max. temp. lower loop**: 266 °F (130 °C)
- **Max. temp. upper loop**: 1150 psi (10 bar)
- **Working pressure**: 150 psi (10 bar)
- **3.5 gal (13.2 l)**
- **Lower heat exchanger volume**: NA
- **Upper heat exchanger volume**: 2325 in² (1.5 m²)
- **Tank weight full**: 1362 lb (618 kg)
- **Height with insulation**: 68 5/16˝ (1735 mm)
- **Width with insulation**: 2325 in² (1.5 m²)
- **Flow Rate**: 312 gal/hr (1,181 l/hr)
- **Output**: 301,688 Btu (89 kW)
- **PERFORMANCE DATA**
  - **Cold water inlet**
  - **Thermometer well**
  - **Clean-out port**
  - **Foam insulation**
  - **Temperature sensor (lower coil)**
  - **Temperature sensor (upper coil)**
  - **Exchanger port**
  - **Clean-out port**
  - **Heat exchanger coil (upper)**
  - **Heat exchanger coil (lower)**
  - **Thermometer wall**

**SBB 400 S**

- **Recirculation port**
- **Sacrificial anode indicator**
- **Heat exchanger port (feed)**
- **Heat exchanger port (return)**
- **Cold water inlet**
- **Cold water outlet**
- **Foam insulation**
- **Temperature sensor (lower coil)**
- **Clean-out port**
- **Heat exchanger port (lower coil)**
- **Heat exchanger port (upper coil)**
- **Thermometer well**

**SBB 300 Plus, SBB 400 Plus, SBB 600 Plus**

- **Recirculation port**
- **Sacrificial anode indicator**
- **Temperature sensor**
- **Temperature sensor (lower coil)**
- **Clean-out port**
- **Heat exchanger port (lower coil)**
- **Heat exchanger port (upper coil)**
- **Thermometer well**
- **Heat exchanger port (return)**
- **Cold water inlet**
- **Cold water outlet**

**Technical Details**

- **SBB tanks have 3” urethane foam insulation (R-30)**
- **Engineered in Germany**
- **Stiebel Eltron SBB and SB-E tanks and heat exchangers are warranted against material defects for 10 years, including the sacrificial anode. See warranty for complete details.**

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**Stiebel Eltron** is a leading manufacturer of solar thermal and domestic hot water storage tanks in conjunction with any type of boiler, geothermal, or solar hot water application. All Stiebel Eltron SBB/SB-E series tanks are made from heavy gauge steel. All surfaces in contact with domestic hot water receive a thick porcelain enamel coating after shot-peening to clean the steel surface. In addition, vessel exteriors receive a light porcelain coating. Up to three inches of urethane foam insulation ensures that hot water stays hot, and standby heat loss is minimized. All SBB/SB-E tanks come with heavy-duty sacrificial anodes and visible anode wear indicators. SBB/SB-E tanks are also fitted with an extra-large clean-out port for ease of maintenance.

Stiebel Eltron SBB series tanks are equipped with either one or two large-bore heat exchangers, designed to maximize heat transfer. For solar thermal applications, an SBB tank can be used with an external backup heater, or an SB-E tank with its integral electric element can be used. Dual heat exchanger models are typically used in solar thermal applications by connecting the lower coil to the collector array, and the upper coil connected to any type of boiler for backup heat input or as a takeoff for a radiant heating loop.

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**ISO 9001:2015**

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**Highly Efficient Domestic Hot Water Storage Tanks for Solar Thermal, Geothermal or Hydronic Applications**

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**Engineering & Manufacturing Excellence Over 90 Years of German Technology**

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**Extra-large clean-out port**

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**Large-bore heat exchanger coil**

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**Heavy-duty sacrificial anode rod**

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**Tanks being porcelain-fired at Stiebel Eltron’s factory in Holzminden, Germany**
1924

Sometimes a “little thing” leads to a whole lot more

Dr. Theodor Stiebel designed the first coil immersion heater and founded “ELTRON Dr. Theodor Stiebel” in 1924 in a small workshop on Reichenberger Strasse in Berlin, Germany.

Since then, Stiebel Eltron has manufactured 20 million tankless electric water heaters, holds hundreds of patents, has won more than fifty design awards, and continues to stay at the forefront of water heating technology.

2019

Continuing to lead innovation in energy efficiency

One of the first manufacturers to develop and manufacture heat pumps and solar thermal water heating, Stiebel Eltron has been a technological leader in renewable energy since 1976.

Today Stiebel Eltron is the heat pump market leader in Germany, and continues creating innovative, energy efficient products for the homes of the future.

Stiebel Eltron Family of Energy Saving Water Heating Products

Distributed by:

Stiebel Eltron has been a world leader in the development of advanced water heating technology for more than 90 years. Our pursuit of engineering excellence and high-quality manufacturing results in products fulfilling the highest expectations of performance and reliability. They are... Simply the Best.