Harvest the power of the Sun

RESURGAM CITY OF PORTLAND, MAINE
Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 03/05/14

Storage Tanks for Solar Applications

- Low standby heat loss
- Heavy gauge steel with porcelain enamel coating
- Superb quality results in long service life
- Fitted with one or two large heat exchangers
- Sacrificial anode rod with wear indicator

Leaders in Solar Thermal Technology

STIEBEL ELTRON

Simply the Best

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Single Heat Exchanger Models

Technical Data

Type		SB 150 S	SB 200 S	SBB 300 S	SBB 400 S
Contents					
Storage capacity	Gal / ltr	39.0 / 147.63	52 / 196.84	80.6 / 305	108.6 / 411
Volume of heat exchanger, top	Gal / ltr	NA	NA	NA	NA
Volume of heat exchanger, bottom	Gal / ltr	1.9 / 7.2	2.7 / 9.1	2.7 / 10.1	2.9 / 11.3
Pressure					
Working pressure	PSI / bar	150 / 10	150 / 10	150 / 10	150 / 10
Tested to pressure	PSI / bar	217 / 15	217 / 15	217 / 15	217 / 15
Max. pressure of boiler loop	PSI / bar	150 / 10	150 / 10	150 / 10	150 / 10
Temperature					
Max. temperature solar loop	°F / °C	203 / 95	203 / 95	203 / 95	203 / 95
Max. temperature of boiler loop	°F / °C	203 / 95	203 / 95	203 / 95	203 / 95
Heat exchanger					
Surface area heat exchanger top	sq. inch / m^2	NA	NA	NA	NA
Surface area heat exchanger bottom	sq. inch / m^2	1742	2059	2325 / 1.5	2635 / 1.7
Weights					
Tank weight empty	lb. / kg	190 / 86.18	226 / 102.5	292 / 133	371 / 169
Tank weight full	lb. / kg	523 / 237.2	658 / 298.4	988 / 448	1304 / 591
Other					
Standby losses in 24 hours	BTU / kWh	6500 / 1.9	4434 / 1.3	6500 / 1.9	7500 / 2.2
Cold/hot water connection		3/4″ Male NPT		for 1″ copper pipe with adapters, provided with unit	
Dimensions					
Height with insulation	in. / mm	50.5 /	62.75 /	66.1 / 1679	72.7 / 1848
Width with insulation	in. / mm	20.5 /	20.5 /	27.55 / 700	29.52 / 750

SB 150 S & SB 200 S models

1 Heat exchanger out
2 Heat exchanger in
3 Cold water inlet
4 Hot water outlet
5 Well for thermostat
6 T & P valve

SBB 300 S & SBB 400 S models

1 Sacrificial anode indicator
2 Thermometer
3 Well for temperature sensor (solar)
4 Clean-out port
5 Foam insulation
6 Cold water inlet
7 Heat exchanger ports (solar)
8 Exchanger coil (solar)
9 Hot water outlet

Note: heat exchangers are steel with porcelain enamel coating.

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Dual Heat Exchanger Models

Technical Data

Type		SBB 300 Plus	SBB 400 Plus	SBB 600 Plus
Contents				
Storage capacity	Gal / ltr	80.6 / 305	108.6 / 411	162.9 / 617
Volume of heat exchanger, top	Gal / ltr	1.9 / 7.3	2.2 / 8.2	2.5 / 9.6
Volume of heat exchanger, bottom	Gal / ltr	2.7 / 10.1	2.9 / 11.3	3.5 / 13.2
Pressure				
Working pressure	PSI / bar	150 / 10	150 / 10	150 / 10
Tested to pressure	PSI / bar	217 / 15	217 / 15	217 / 15
Max. pressure of boiler loop	PSI / bar	150 / 10	150 / 10	150 / 10
Temperature				
Max. temperature solar loop	°F / °C	203 / 95	203 / 95	203 / 95
Max. temperature of boiler loop	°F / °C	203 / 95	203 / 95	203 / 95
Heat exchanger				
Surface area heat exchanger top	sq. inch / m^2	1705 / 1.1	2015 / 1.3	2945 / 1.9
Surface area heat exchanger bottom	sq. inch / m^2	2325 / 1.5	2635 / 1.7	3875 / 2.5
Weights				
Tank weight empty	lb. / kg	339 / 154	412 / 187	544 / 247
Tank weight full	lb. / kg	1,051 / 477	1,362 / 618	1,955 / 887
Other				
Standby losses in 24 hours	BTU / kWh	6,500 / 1.9	7,500 / 2.2	10,000 / 2.9
Cold/hot water connection		for 1″ copper pipe with adapters, adapters provided with unit		
Dimensions				
Height with insulation	in. / mm	66.1 / 1679	72.7 / 1848	68.3 / 1735
Width with insulation	in. / mm	27.55 / 700	29.52 / 750	36.22 / 920 *

* Insulation is partially removeable to reduce width to 31.5″ for clearance purposes

SBB 300 Plus, SBB 400 Plus and SBB 600 Plus models

1 Sacrificial anode indicator
2 Thermometer
3 Well for temperature sensor (boiler)
4 Well for temperature sensor (solar)
5 Clean-out port
6 Foam insulation
7 Cold water inlet
8 Heat exchanger ports (solar)
9 Exchanger coil (solar)
10 Heat exchanger ports (boiler)
11 Exchanger coil (boiler)
12 Hot water outlet

Note: heat exchangers are steel with porcelain enamel coating.

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Storage Tanks for Solar Applications

The Stiebel Eltron SB/SBB series water heaters are indirectly fired and are equipped with either one or two large heat exchangers. The heat exchangers are heavy gauge steel with procelain enamel coating.

The models with a single heat exchanger can be used for solar applications with some form of external backup heater. On the models with dual heat exchangers, the upper coil is typically connected to a space heating boiler fired by any fuel and the lower coil is connected to the solar panels.

All Stiebel Eltron SB/SBB series water heaters can also be used as high capacity indirectly fired water heaters in conjunction with any type of heating boiler.

Stiebel Eltron Family of Products

Solar Panels

Tempra Tankless Water Heater

Stiebel Eltron is a world leader in the development of advanced water heating technology. We have pursued engineering excellence and high quality over a period of several decades.

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