

SST Stainless Steel DHW Indirect Tanks

Engineering
Submittal
Sheet



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Engineering Specification

The SST series indirect water heater is designed to generate domestic hot water in conjunction with a hot water boiler using forced boiler water circulation. This indirect water heater consists of a 316L Stainless Steel tank in which a smooth 304L stainless steel coil is located.

Boiler water is pumped through the coil and heats the water in the tank. This tank is not intended for use in pool heating applications or for heating any fluid other than water. It is also not intended for use in gravity hot water heating systems.

Features and benefits of the SST indirect tanks:

- Tank capacities ranging from 40 to 119 gallons to suit all your hot water needs.
- 316L Stainless Steel tank interior provides superior durability & longevity, offering resistance to the corrosive tendencies of domestic water.
- 304L Stainless Steel heating coil efficiently transfers high volumes of BTU's from heat source to domestic water stored in the tank, making first hour delivery among the industry's best.
- High density CFC/HCFC Free Polyurethane Foam yields the lowest standby losses in the industry.
- State-of-the-art six axis programmable robotic welder uses computer guidance to accurately weld all of the stainless steel fittings and coil to the stainless steel tank.

SST Dimensions and General Specifications

	Unit	SST150-40	SST250-65	SST300-80	SST450-119
Tank capacity	Gal (L)	40 (151.4)	67 (253.6)	82 (310.4)	113 (427.8)
Diameter	in (mm)	20 (508)	24 (609.6)	24 (609.6)	28 (711.2)
Height without tank feet	in (mm)	56 (1,320.8)	60 (1,524)	70 (1,778)	69 (1,752.6)
Shipping weight	lbs (kg)	105 (47.63)	147 (66.68)	177 (80.28)	213 (96.61)
Weight full of water	lbs (kg)	515 (233.60)	820 (371.95)	921 (417.76)	1,268 (575.15)
Coil pressure drop	Feet of Head	4.5	5.7	6.1	6.5
Coil length	in (mm)	30.8 (782.3)	41.5 (1054.1)	41.5 (1054.1)	67.3 (1709.4)
Cold water inlet	Inches	1" NPT	1½" NPT	1½" NPT	1½" NPT
Hot water outlet	Inches	1" NPT	1½" NPT	1½" NPT	1½" NPT
Supply to boiler	Inches	1" NPT	1" NPT	1" NPT	1" NPT
Return from boiler	Inches	1" NPT	1" NPT	1" NPT	1" NPT
Temperature and pressure relief valve	Inches	¾" NPT	¾" NPT	¾" NPT	¾" NPT

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SST Performance Data

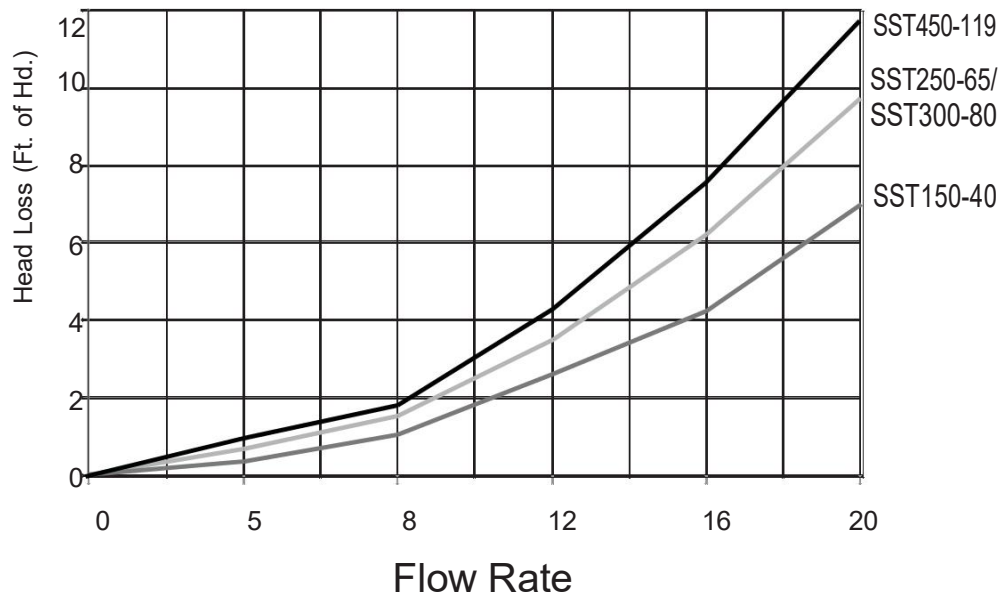
	Unit	SST150-40	SST250-65	SST300-80	SST450-119
Potable water volume	Gal	40.0	67.0	81.5	113.4
Heat source water volume	Gal	1.6	1.9	2.1	3.2
Standby heat loss	F/hr	0.7	0.5	0.5	0.4
Continuous draw rating	Gal/hr	181	263	285	349
First hour rating	Gal/hr	208	327	358	459
Minimum heat output rate from heat source	Btu/hr	115,000	154,000	171,000	216,000
Minimum heat source flow rate	GPM	14.0	14.0	14.0	14.0
Tank heat source friction loss feet	W.C	4.5	5.7	6.1	6.5

* These ratings were obtained with a heat source output and heat source flow rate as listed in the chart using the parameters of the Domestic Cold Water Inlet at 58°F, Domestic Temperature Rise of 77°F, and a Boiler Temperature Output of 180°F. Other results will be obtained under different conditions.

SST Permissible Maximum Values

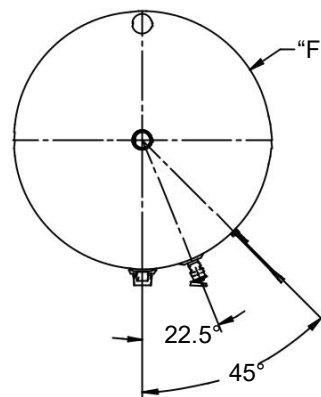
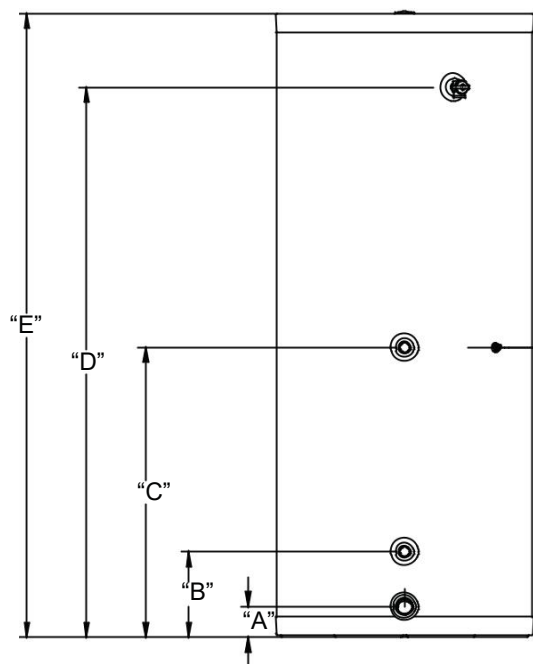
	Unit	SST150-40	SST250-65	SST300-80	SST450-119
Maximum domestic hot water temperature	°F (°C)	194 (90)	194 (90)	194 (90)	194 (90)
Maximum boiler water temperature	°F (°C)	210 (99)	210 (99)	210 (99)	210 (99)
Maximum working pressure for the vessel tank	PSI	150	150	150	150
Maximum water pH value	-	8.0	8.0	8.0	8.0

Coil Pressure Drop Chart





SST Dimensions



SST Dimensions

Dimension	Unit	SST150-40	SST250-65	SST300-80	SST450-119
A - Drain / cold water inlet	Inches (mm)	3 (76.2)	3¼ (82.6)	3¼ (82.6)	3¼ (82.6)
B - Boiler supply	Inches (mm)	8¼ (209.6)	9¼ (235.0)	9¼ (235.0)	9¼ (235.0)
C - Boiler return	Inches (mm)	25¼ (641.4)	28 (711.2)	28 (711.2)	31¼ (806.5)
D - Relief valve connection	Inches (mm)	48½ (1232.0)	52½ (1334.0)	61¼ (1568.5)	60¼ (1530.4)
E - Hot water outlet / tank height	Inches (mm)	56 (1422.4)	60 (1524.0)	70 (1778.0)	69 (1752.6)
F - Tank width	Inches (mm)	20 (508.0)	24 (609.6)	24 (609.6)	28 (711.2)