

# STAINLESS STEEL HYDRONIC BUFFER TANKS



*Lochinvar's Stainless Steel Buffer Tanks are designed to provide thermal storage volume and hydraulic separation of the boiler or heat pump and the building distribution system. A properly applied buffer tank will reduce on/off cycling (short cycling), which will lead to longer runtimes, higher efficiencies and longer equipment life. Squire buffer tanks can be used in geothermal, chilled water applications, and any system with low-mass boilers.*

## Thermal Storage

Hydronic buffer tanks are utilized to provide thermal storage volume when the system demand is less than the lowest firing rate of the boiler. This occurs most often when there are "micro" zones in the distribution system whose demand is below the minimum firing rate of the boiler. Under these conditions the boiler fires at its minimum rate, which is more energy than can be absorbed by the distribution system, and shuts off because of high return temperatures before the "micro" zone's call for heat is satisfied. The boiler system continues to receive a call for heat and fires again. The "micro" zone cannot absorb all the energy produced by the boiler, and again the boiler shuts off because of high return temperatures. With the volume provided by the tank the additional energy not utilized by the "micro" zone can be stored in the buffer tank and used when there are additional heating demands.

## Hydraulic Separation

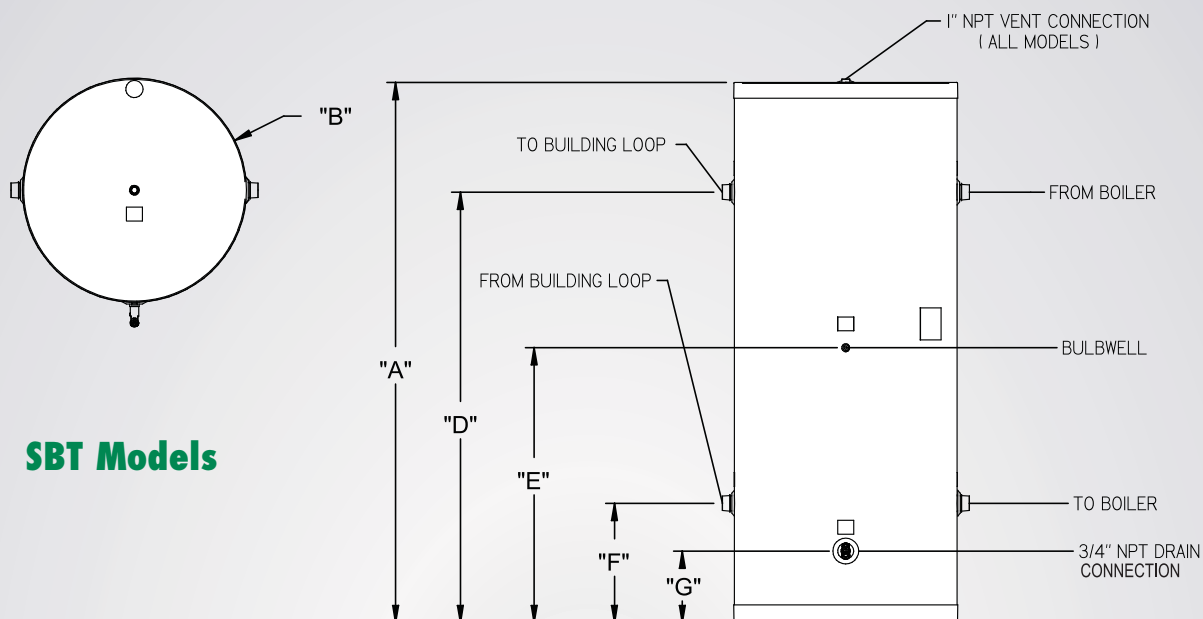
Lochinvar's Squire Buffer tanks also function as hydraulic separators, effectively separating the flow in the boiler loop from the flow in the distribution system. This is beneficial when the flow rate in the distribution system is different than the flow rate of the boiler system. It can be very important when there is a variable speed pump in the distribution system whose flow rate can be less than that of the boiler pump.

**CAPACITIES FROM  
30 - 120 GALLONS  
5 YEAR LIMITED WARRANTY**



[Lochinvar.com](http://Lochinvar.com)

# Stainless Steel Hydronic Buffer Tank Dimensions and Specifications



## SBT Models

Model Number	Gallon Capacity	A	B	D	E	F	G	Supply/Return Connections	Shipping Wt. (lbs.)
SBT030	30	39-1/2"	20	28-3/4"	20-1/4"	11-3/4"	7-3/4"	1-1/4" NPT	70
SBT050	50	47	24	33-3/4"	24-1/4"	14-3/4"	8-3/4"	1-1/4" NPT	120
SBT080	80	69-1/2"	24	55-3/4"	35-1/4"	14-3/4"	8-3/4"	1-1/2" NPT	153
SBT119	119	68-1/4"	28	54-3/4"	34-1/4"	15	9	1-1/2" NPT	198

## STANDARD FEATURES

- › R-13.4 insulation for minimal heat loss
- › Textured, impact resistant polymer jacket
- › Light-weight 316L stainless steel tank construction
- › Bulbwell
- › Drain and air vent connections
- › 5 year tank warranty

*All models standard with a 5 Year Limited Warranty Against Tank Failure.*



**Lochinvar®**  
High Efficiency Water Heaters, Boilers and Pool Heaters



Lochinvar Corporation • 300 Maddox Simpson Pkwy • Lebanon, TN 37090 • 615-889-8900 / Fax: 615-547-1000

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