

INSTALLATION INSTRUCTIONS FOR STAINLESS STEEL HYDRONIC BUFFER TANK FOR MODELS: SBT 030, 050, 080 & 119

⚠ WARNING

Use this vessel only in hydronic heating systems. DO NOT use in potable water systems. The installer must comply with all plumbing codes. DO NOT operate above the temperature or pressure specified on the rating plate. Failure to comply may result in personal injury, property damage, or death.

Application

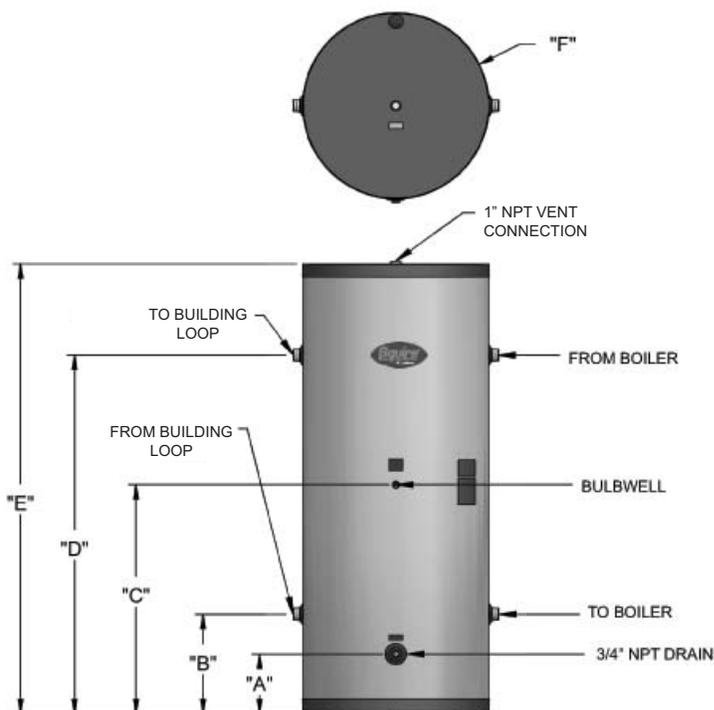
The primary application of a buffer tank is to reduce boiler or heat pump cycling. Hydronic buffer tanks are designed to be used in systems operating below the designed load conditions, or in systems having several low BTU heating loads calling at different times.

NOTICE

Short cycling can result in reduced operating efficiency which shortens the life of the appliance.

- Hydronic buffer tanks are built with four (4) connections. Two (2) connections can be piped to the heating appliance and two (2) can be piped to the distribution system. If piped correctly the buffer can serve as a hydraulic separator as well as a thermal buffer. The heating appliance is therefore de-coupled from the distribution system. Reference the piping diagrams on pages 2 and 3 of this instruction sheet.
- The buffer tank is also supplied with a 1" NPT vent connection, 3/4" drain opening, and a 3/8" sensor bulbwell. This bulbwell is designed to accommodate sensors supplied with the boilers or a Honeywell Aquastat control (TST20016) which can be ordered from your Lochinvar distributor.
- The buffer tanks are made of 316 stainless steel, insulated with foam and wrapped in Polypropylene / ABS outer jacket.

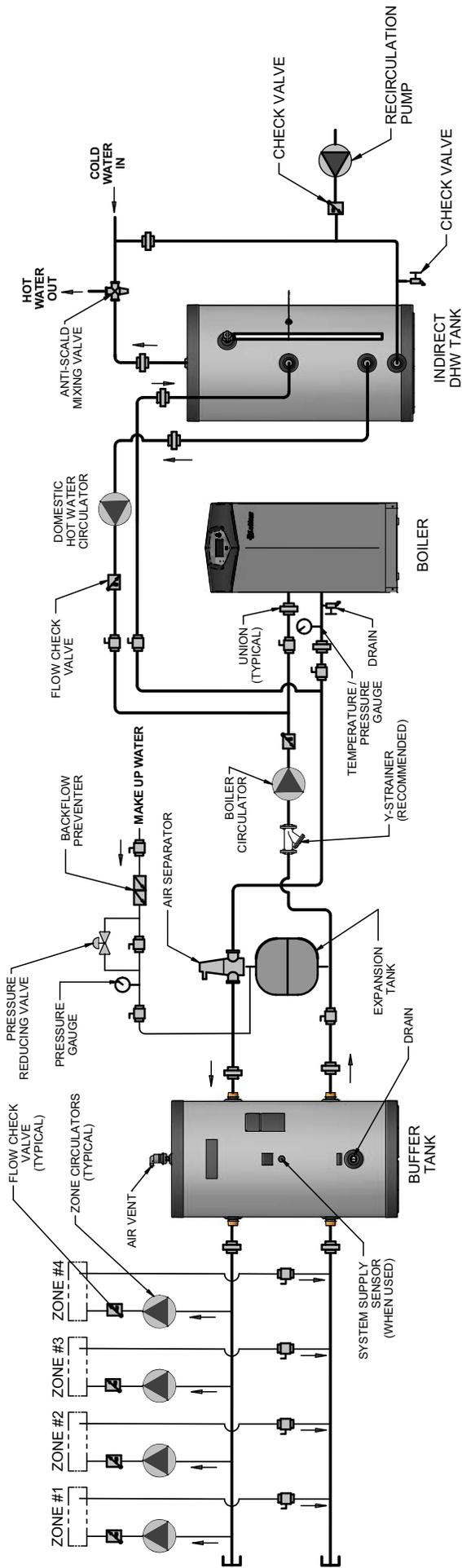
Figure 1 Buffer tank dimensions, refer to table below



Dimensions and Specifications

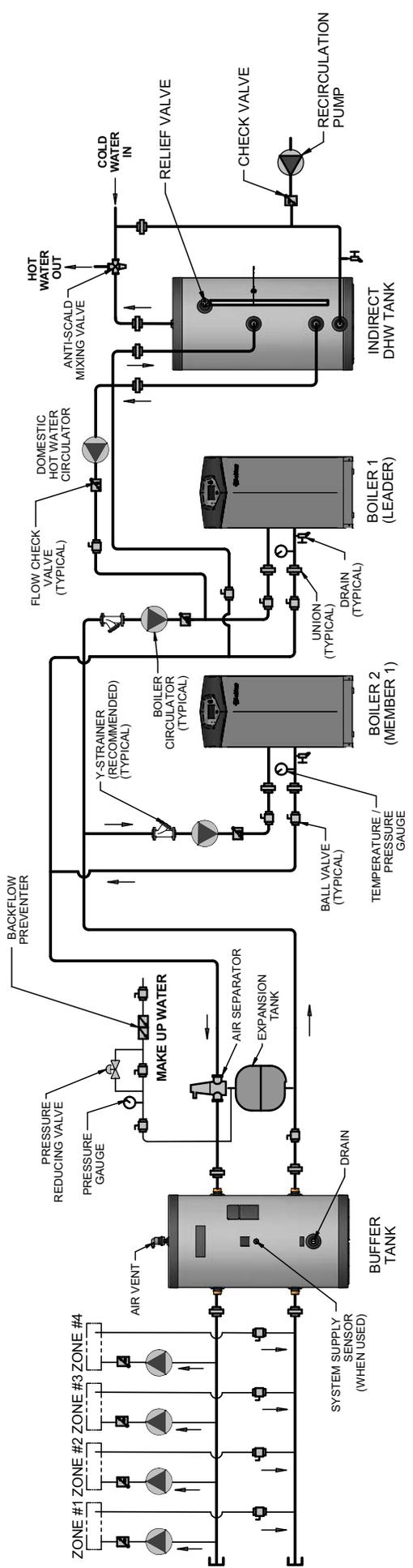
Model Number	Gallon Capacity	A	B	C	D	E	F	Supply/Return	Boiler Tappings
SBT030	30	7 3/4"	11 3/4"	20 1/4"	28 3/4"	39 1/2"	20"	1 1/2"	1 1/2"
SBT050	50	8 3/4"	14 3/4"	24 1/4"	33 3/4"	47"	24"	1 1/2"	1 1/2"
SBT080	80	8 3/4"	14 3/4"	35 1/4"	55 3/4"	69 1/2"	24"	2"	2"
SBT119	119	9"	15"	34 1/4"	54 3/4"	68 1/4"	28"	2"	2"

Figure 2 Single heater with zoned with circulators



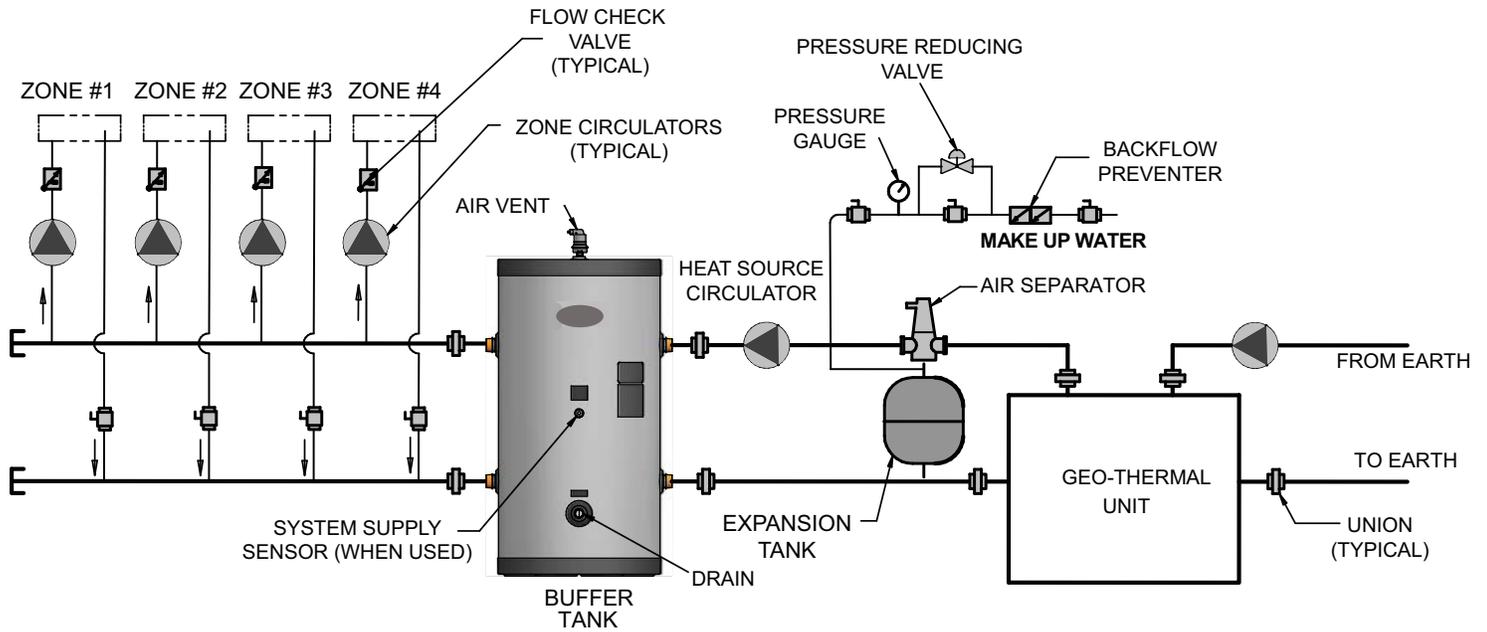
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Figure 3 Multiple heaters zoned with circulators



IMG00564

Figure 4 Geothermal heat pump



NOTICE

Please note that these illustrations are meant to show system piping concept only, the installer is responsible for all equipment and detailing required by local codes.

Revision Notes: *Revision A (ECO C06320) initial release.*

Revision B (ECO C06679) reflects updated images to display the new Squire label.

Revision C (ECO C08812) reflects the change in tappings diameter for SBT030 and SBT050 to 1 1/2" and SBT080 and SBT119 to 2" as well as the reformatting of cautionary statements on page 1.

Revision D (ECO C11653) reflects the correction of text within Figure 1 and the update of Figures 2 and 3.