

## J. Applications

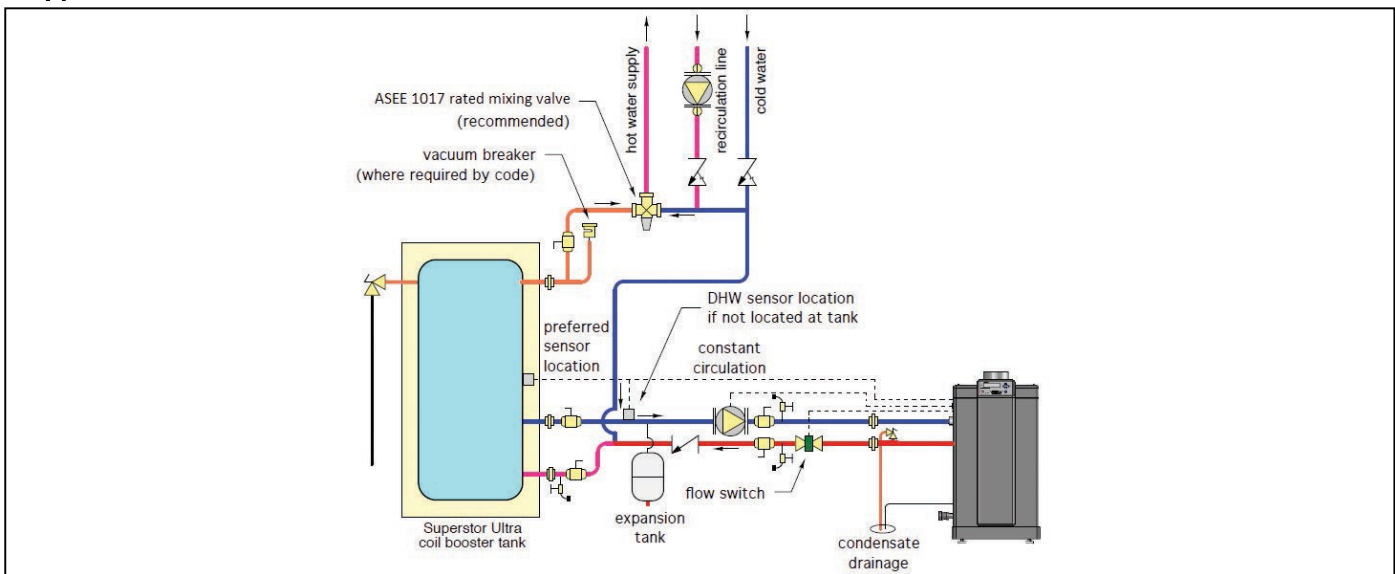


Figure 7 - VWH with Storage Tank

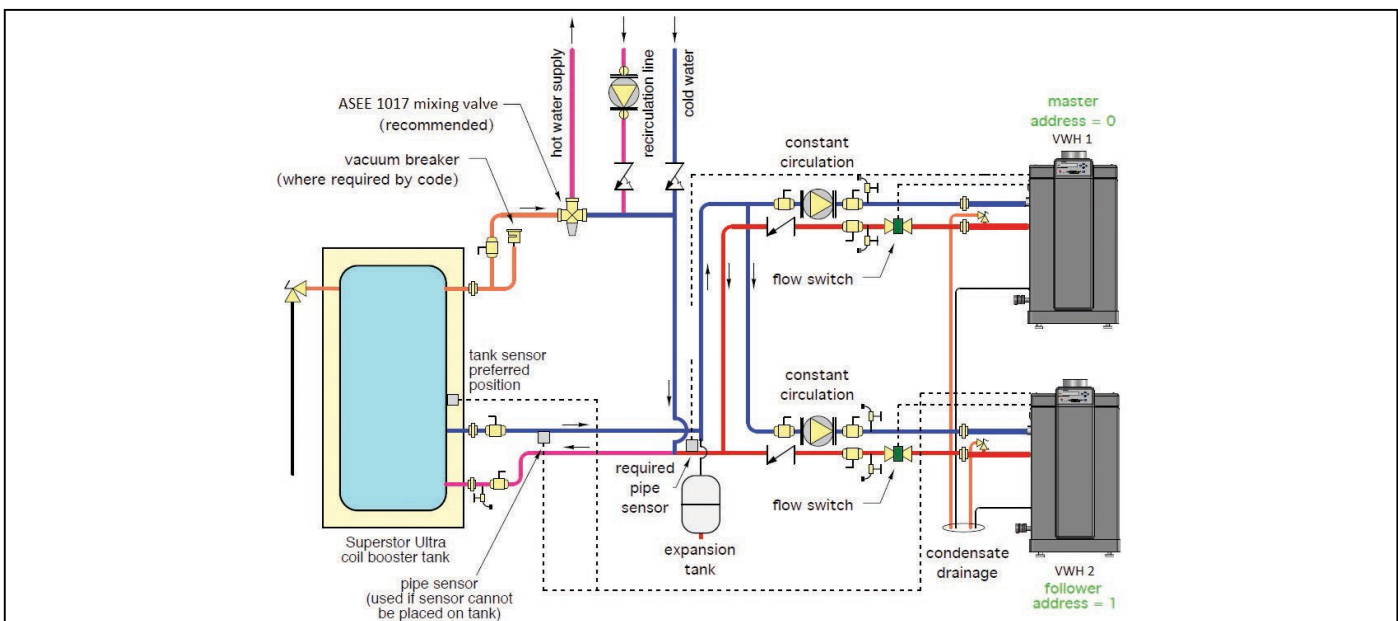


Figure 8 - Two VWH Boilers with Storage Tank

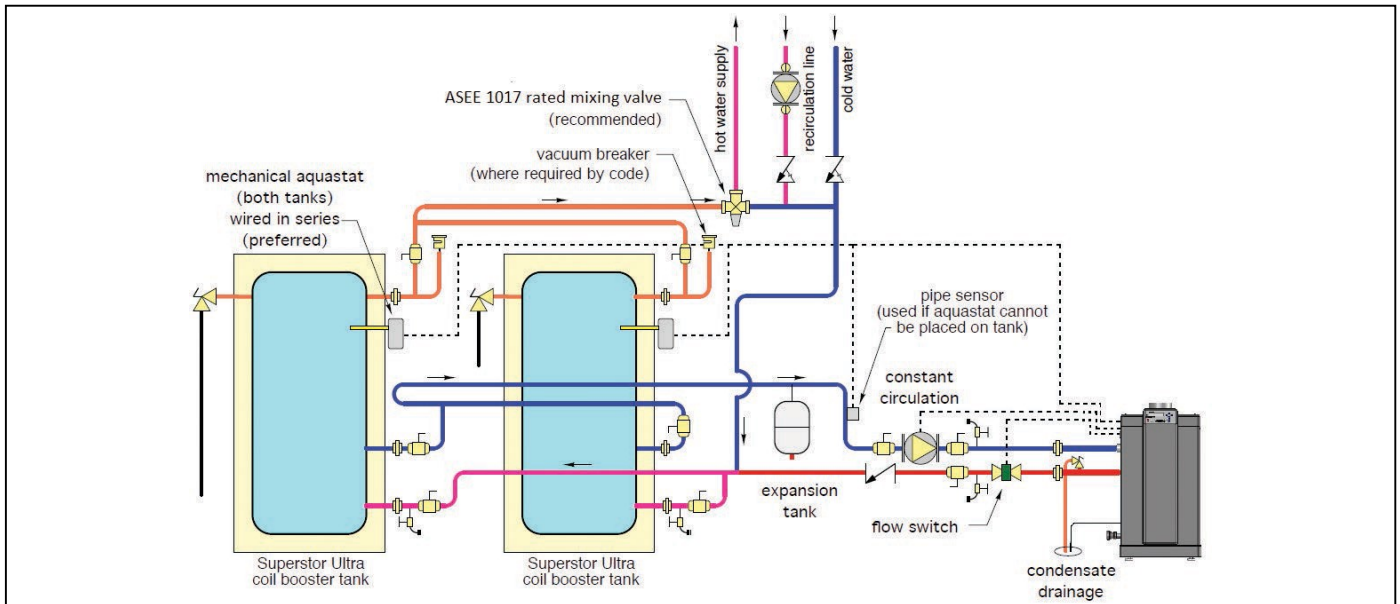
### NOTES:

1. This drawing is meant to show system piping concept only. Installer is responsible for all equipment & detailing required by local codes.
2. Boiler circulator must be rated for open loop application. Do not use cast-iron circulators.
3. Boiler circulator(s) operate continuously.
4. Piping to the water storage tank must be at least the size of the boiler return and supply connections.
5. See this manual for minimum pipe sizing.
6. All pumps are shown with isolation flanges or full port ball valves for isolation. The alternative is standard flanges with full port ball valves and a separate flow check valve.
7. Install a minimum of 12 diameters of straight pipe upstream of all circulators and check valves.
8. Install vacuum relief valve in accordance with local code requirements.
9. All multiple boilers and multiple storage tanks must be installed with reverse return piping as shown.
10. Expansion tank must be rated for use with potable water.
11. Use either indirect/tank sensor or system/pipe sensor mounted on common return to the boiler.
12. Aquastat or system/pipe sensor connects to DHW sensor input on master boiler.

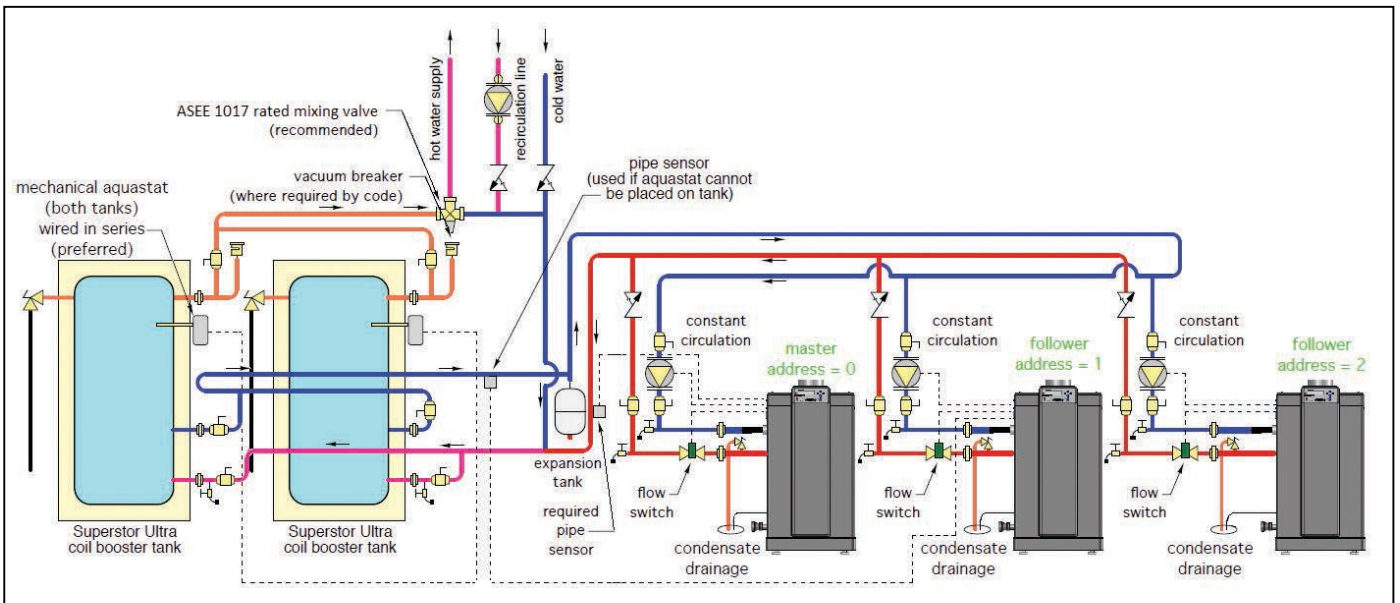
## WARNING

An ASSE 1017 thermostatic mixing valve is recommended on all tanks if the hot water temperature leaving the tank is above 119°F. Failure to do so could result in substantial property damage, serious injury, or death.

The piping will not support the weight of the circulators. Refer to the circulator manufacturer's instructions to properly support the circulator. Failure to comply with these instructions could result in property damage, severe personal injury, or death.



**Figure 10 - VWH Boiler with Two Storage Tanks**



**Figure 9 - Three VWH Boilers with Two Storage Tanks**

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