18 Primary/Secondary System Piping *(continued)*

Closed-type expansion tank:

⚠CAUTION DO NOT use a closed-type tank if connecting to a water heater that is equipped with an automatic air vent.

Figure 53 shows suggested piping when using a closed-type expansion tank, in which the air is directly in contact with tank water.

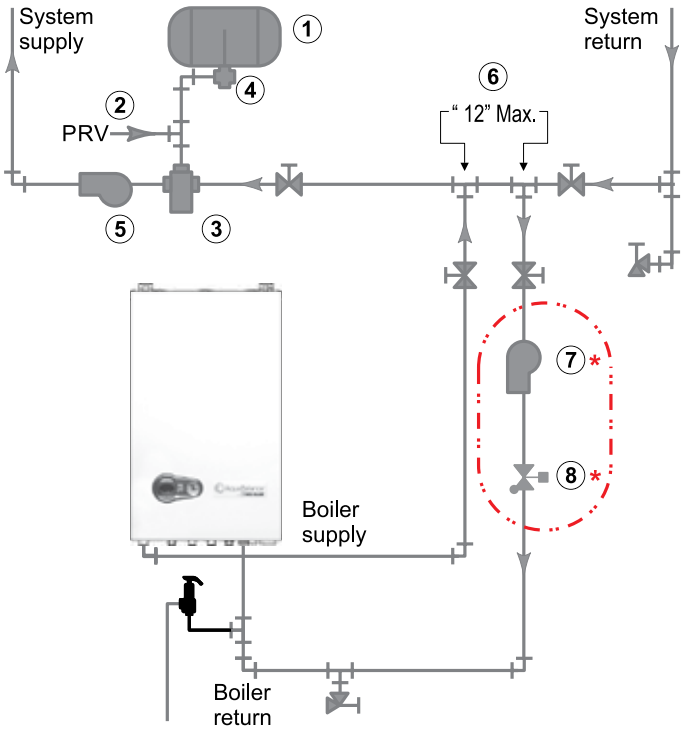
Connect piping (½" or ¾") from the air separator outlet to the tank fitting. Slope any horizontal piping a minimum of 1 inch per 5 feet of horizontal pipe.

Always use a **tank fitting** such as the B&G Tank-trol or Taco Taco-trol (shown). The fitting reduces gravity flow of water in the piping to the tank, avoids air bubbling through the tank water, and provides the proper fill height in the tank.

⚠CAUTION **Correct all leaks** in the system or tank piping. Leaks allow air to escape from the system and will cause water-logging of the tank. This will result in water loss through the boiler relief valve due to over-pressurization. **NEVER** use an automatic air vent in a system equipped with a closed-type expansion tank. The air removed from the system will cause water-logging of the expansion tank.

NOTICE Closed-type expansion tank—Follow tank manufacturer's instructions for filling the tank. Typical tank sizing provides for approximately 12 PSIG when the tank is filled to the normal level and system water is cold. Note that boiler relief valve is set for 30 PSIG. Operation pressure of system, after temperature expansion above cold fill pressure, should not exceed 24 PSIG to avoid weeping of relieve valve.

Figure 53 Piping to closed-type expansion tank



1 Closed-type expansion tank
2 PRV Fill valve
3 Air separator
4 Tank fitting
5 System circulator
6 Primary/secondary connection
7 * Boiler circulator
8 * Flow/check valve
* (For Heating Only boilers)

WM-041a

Graph 1 Pressure drop through **AquaBalance**® 80/120/155 heat exchanger

