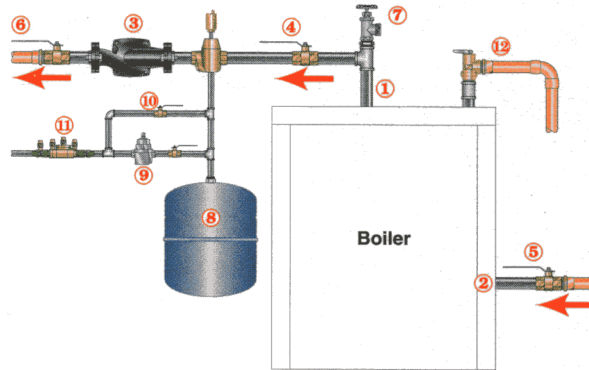
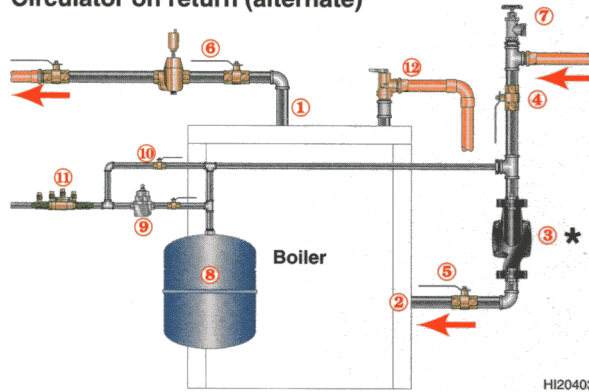


**Figure 3** Near-boiler piping  
**Circulator on supply (preferred)**



**Circulator on return (alternate)**



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**\* CAUTION:** If using a high-head circulator, ALWAYS mount circulator on supply line — NEVER on the return. A high-head circulator can cause the boiler relief valve to open if mounted on return with expansion tank.

- |                            |   |
|----------------------------|---|
| ① Boiler outlet (supply)   | ⑧ Diaphragm expansion tank  |
| ② Boiler inlet (return)    | ⑨ Pressure reducing valve (if not using combination-type valve)                           |
| ③ Circulator               | ⑩ Quick-fill bypass valve   |
| ④ Close valve when purging | ⑪ Backflow preventer (if required)  |
| ⑤ Return isolation valve   | ⑫ Pipe relief valve to drain, using only metal pipe full size of valve outlet connection. |
| ⑥ Isolation valve          |   |
| ⑦ Purge cock (hose bibb)   |   |