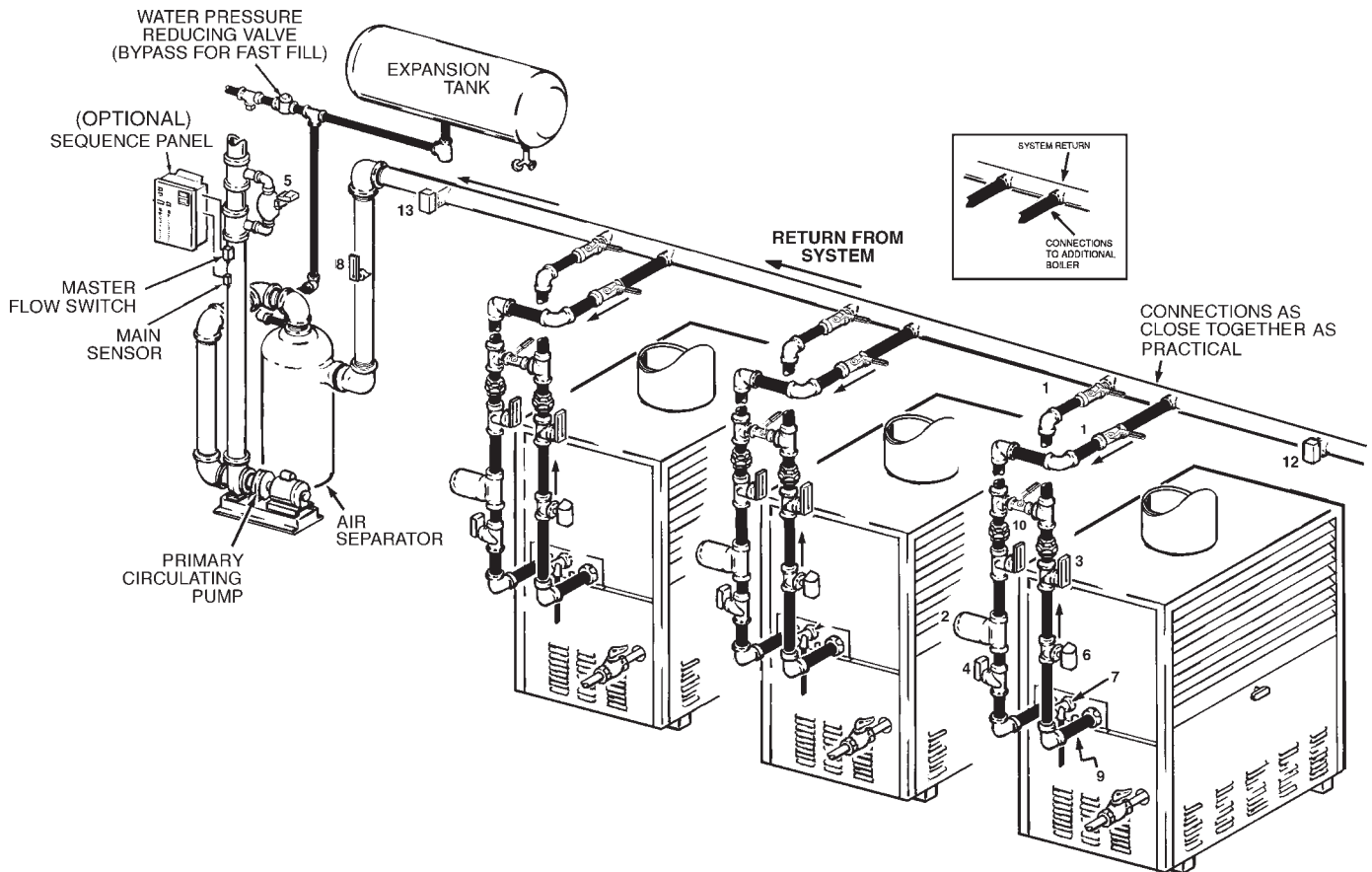


A.O. SMITH

APPLICATION TYPE DIAGRAM
SEE INSTALLATION MANUAL FOR
COMPLETE INSTRUCTIONS

LOW TEMPERATURE SYSTEM DB-720 THRU DB-1810 PRIMARY-SECONDARY PIPING

INSTALL IN ACCORDANCE WITH LOCAL CODES.



SECONDARY PUMP AND PIPE SELECTION DATA FOR
CONNECTIONS TO EACH PAIR OF BOILERS
ASSUMING THAT PRIMARY PUMPING IS SIZED FOR A 20°
TEMPERATURE DROP

| Model DB | Temp. Rise 20°(F) | | Temp. Rise 30°(F) | | Temp. Rise 20°(F) | | Boiler Inlet & Outlet (Inches) |
|-------------|-------------------|------------------------|-------------------|------------------------|-------------------|------------------------|---|
| | Flow (gpm) | Head Loss (feet) | Flow (gpm) | Head Loss (feet) | Flow (gpm) | Head Loss (feet) | |
| 720 | 59 | 3.5 | 40 | 1.7 | 30 | 1.0 | 2" |
| 840 | 69 | 4.8 | 46 | 2.1 | 35 | 1.5 | 2" |
| 960 | 79 | 6.8 | 53 | 3.3 | 40 | 1.9 | 2" |
| 1080 | 89 | 4.5 | 59 | 2.1 | 45 | 1.4 | 2.5" |
| 1210 | 100 | 5.3 | 67 | 2.7 | 50 | 1.6 | 2.5" |
| 1350 | 111 | 6.8 | 74 | 3.2 | 56 | 1.8 | 2.5" |
| 1480 | 122 | 7.9 | 81 | 3.9 | 61 | 2.1 | 2.5" |
| 1610 | 133 | 9.5 | 89 | 5.0 | 66 | 3.0 | 2.5" |
| 1810 | 149 | 12.0 | 100 | 6.2 | 75 | 3.9 | 2.5" |

1. BALL VALVE
2. BOILER CIRCULATING PUMP (Secondary)
3. THERMOMETER
4. THERALTIMETER
5. LOW WATER CUT-OFF (If Required)
6. SAFETY FLOW SWITCH
7. RELIEF VALVE
8. SYSTEM SUPPLY TEMP. THERMOMETER
9. DRAIN or BLOW-DOWN VALVE
10. BY-PASS
11. OUTLET VALVE
12. REMOTE LOOP STAT
13. PROBE-TYPE LOW WATER CUTOFF (If Required)

Secondary flow rate should not create a temperature rise that will force boiler temperatures up to the 240° maximum setting of limit controls.

A minimum inlet temperature of 110° must be maintained to the boiler.

** Flow rates through unequal models must be adjusted to establish equal temperature rise.

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