

# A. O. SMITH

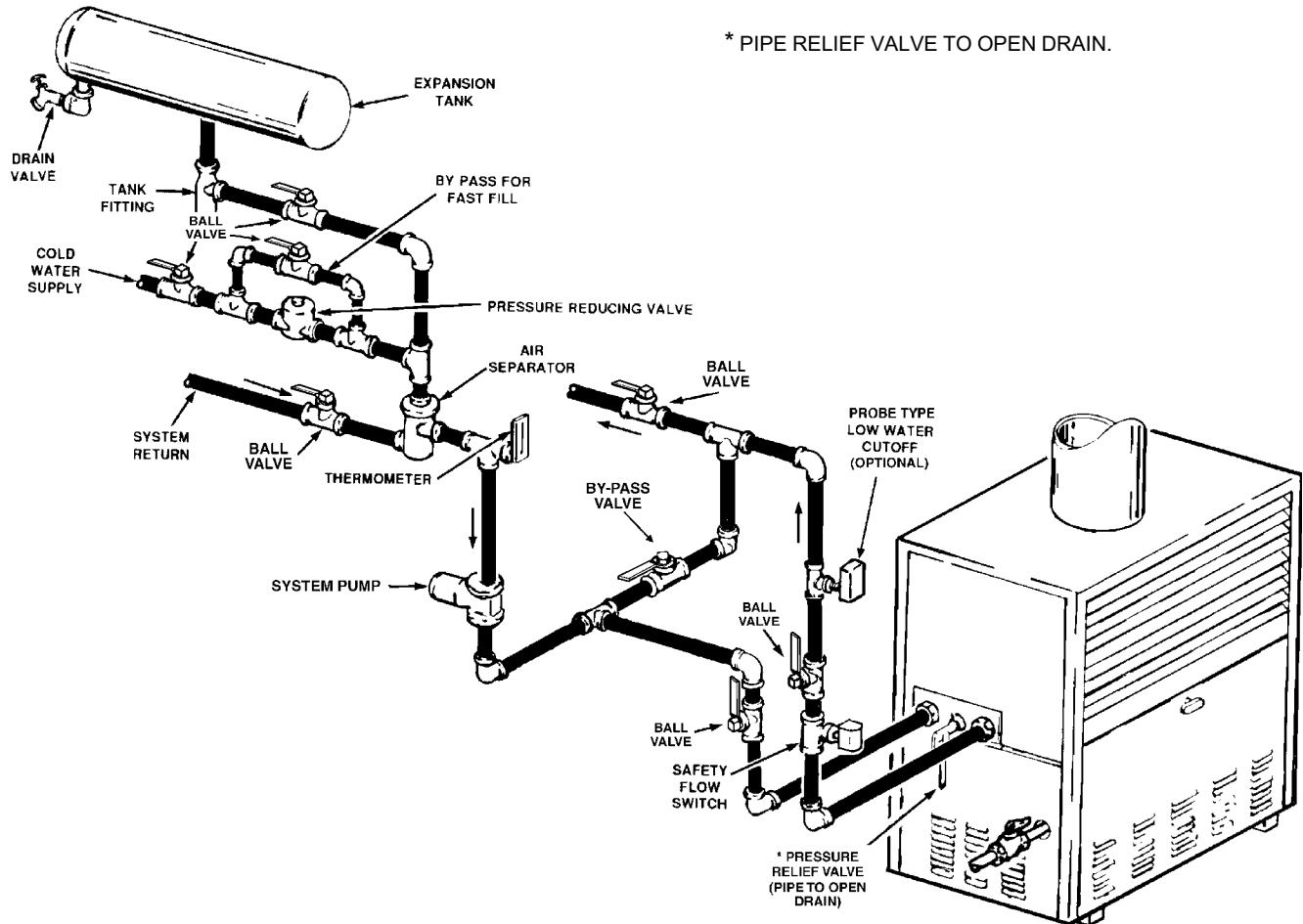
APPLICATION TYPE DIAGRAM  
SEE INSTALLATION MANUAL FOR  
COMPLETE INSTRUCTIONS.

INSTALL IN ACCORDANCE WITH ALL LOCAL CODES.

## TYPICAL PIPING FOR CONVENTIONAL SINGLE BOILER INSTALLATION DB-720 THRU DB-1810

- SAFETY RELIEF VALVE SETTING SHOULD NOT EXCEED PRESSURE RATING OF ANY COMPONENT IN THE SYSTEM.
- PIPING SHOULD CONFORM TO LOCAL CODES.
- BALL VALVES ARE SHOWN FOR SERVICE. HOWEVER LOCAL CODES SHALL GOVERN THEIR USAGE.

\* PIPE RELIEF VALVE TO OPEN DRAIN.



Model DB	Temp. Rise 20°F		Temp. Rise 30°F		Temp. Rise 40°F		Boiler Inlet & Outlet (inches)
	Max. Flow (gpm)	Head Loss (feet)	Flow (gpm)	Head Loss (feet)	Min. 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"

### System Notes:

- The System Pump must be sized to maintain the minimum recommended flow rate through the boiler. The pump must operate continuous or cycle with the boiler.
- The By-Pass is required for systems designed to operate at flow rate higher than the maximum recommended flow rate of the boiler.
- This piping method is not recommended for systems designed to operate with return water temperatures less than 110°F. (See recommended piping method for Low Temperature Heating Systems).

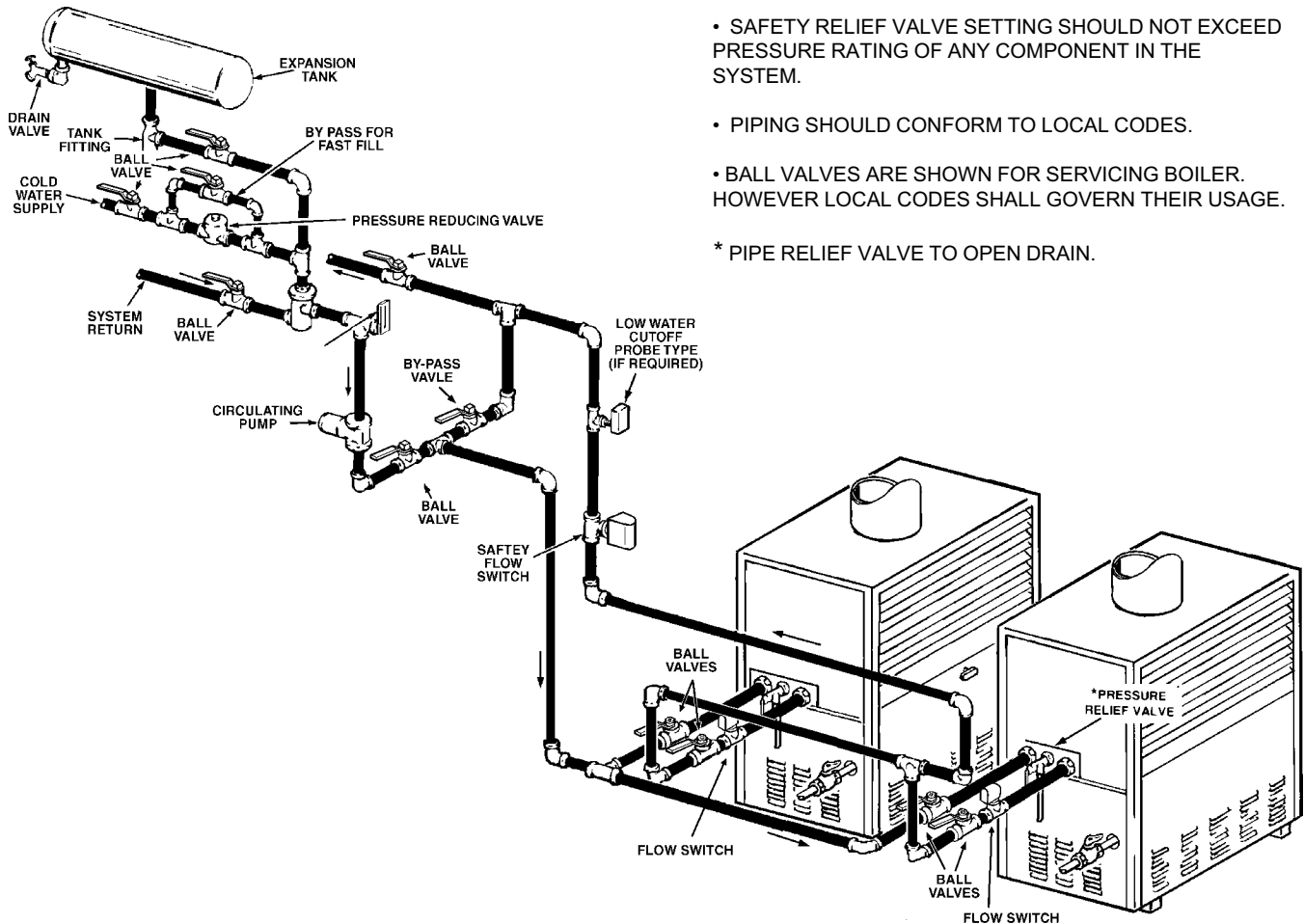


**TWO BOILERS  
REVERSE RETURN  
DB-720 THRU DB-1810**

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COMPLETE INSTRUCTIONS.

INSTALL IN ACCORDANCE WITH ALL LOCAL CODES.



- SAFETY RELIEF VALVE SETTING SHOULD NOT EXCEED PRESSURE RATING OF ANY COMPONENT IN THE SYSTEM.
- PIPING SHOULD CONFORM TO LOCAL CODES.
- BALL VALVES ARE SHOWN FOR SERVICING BOILER. HOWEVER LOCAL CODES SHALL GOVERN THEIR USAGE.
- \* PIPE RELIEF VALVE TO OPEN DRAIN.

Model DB	Temp. Rise 20°F		Temp. Rise 30°F		Temp. Rise 40°F		Boiler Inlet & Outlet (inches)
	Max. Flow (gpm)	Head Loss (feet)	Flow (gpm)	Head Loss (feet)	Min. Flow (gpm)	Head Loss (feet)	
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1810	149	12.0	100	6.2	75	3.9	2.5"

**System Notes:**

- The System Pump must be sized to maintain the minimum recommended flow rate through the boilers. The pump must operate continuous or cycle with the boilers.
- The By-Pass is required for systems designed to operate at a flow rate higher than the maximum recommended flow rate to boilers.
- This piping method is not recommended for systems designed to operate with return water temperatures less than 110°F. (See recommended piping method for Low Temperature Heating Systems).