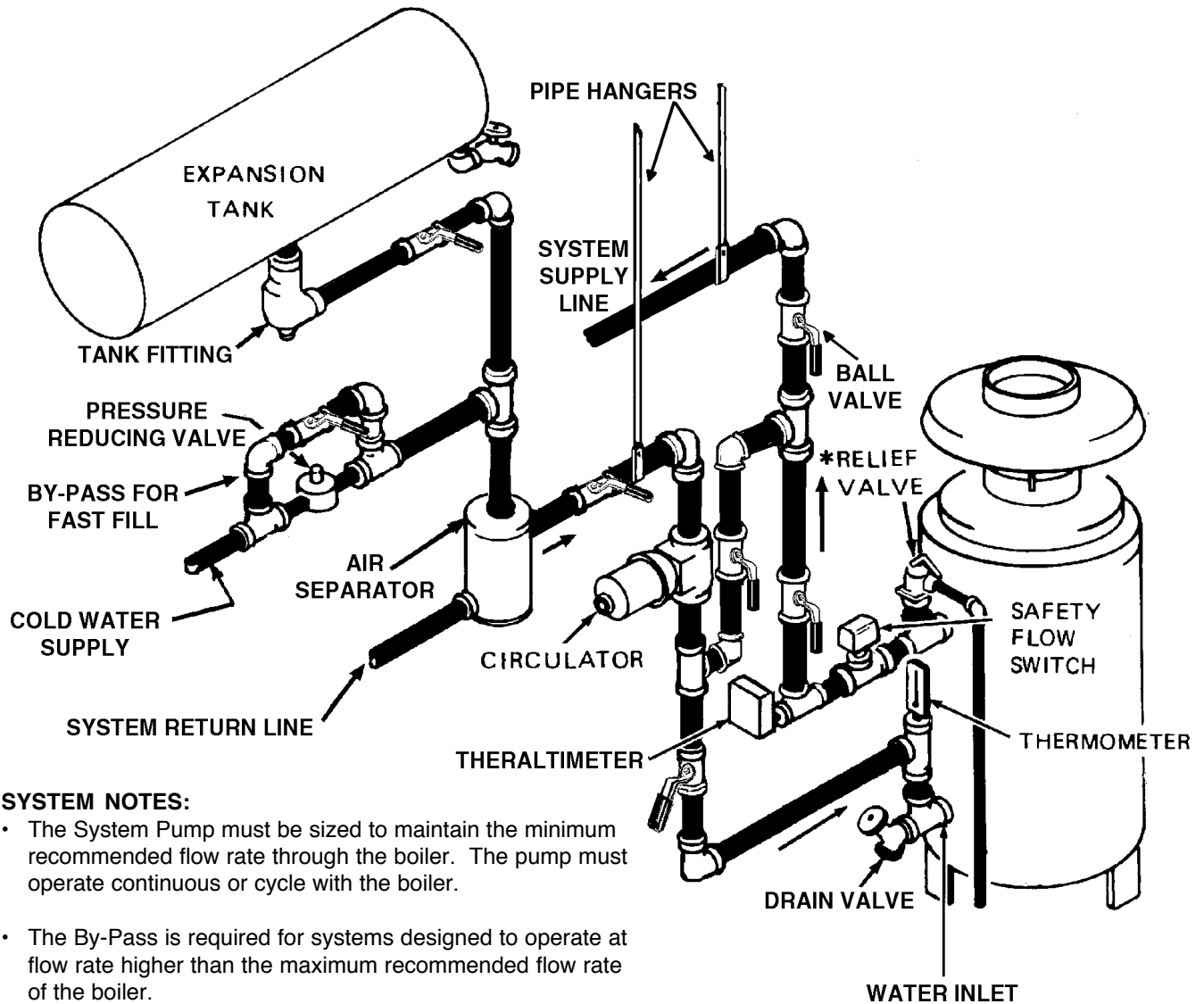


# A.O. SMITH

APPLICATION TYPE DIAGRAM  
SEE INSTALLATION MANUAL FOR  
COMPLETE INSTRUCTIONS

INSTALL IN ACCORDANCE WITH LOCAL CODES.

## TYPICAL PIPING FOR CONVENTIONAL SINGLE BOILER INSTALLATION HW-300 thru HW 670



### 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 A&E Page E 112.0.)

\* PIPE RELIEF VALVE TO OPEN DRAIN.

Model	Inlet/Outlet Size	20° Temperature Rise		30° Temperature Rise		40° Temperature Rise	
		GPM	PD-Ft/hd	GPM	PD-hd	GPM	PD-Ft/hd
HW-300	1 1/4"	23	8.0	15	3.0	11	2.0
HW-399	1 1/2"	30	16.0	20	7.0	15	5.0
HW-420	1 1/2"	32	18.0	21	8.0	16	5.5
HW-520	2"	39	12.0	24	5.0	20	4.0
HW-670	2"	51	22.0	34	10.0	25	5.5

