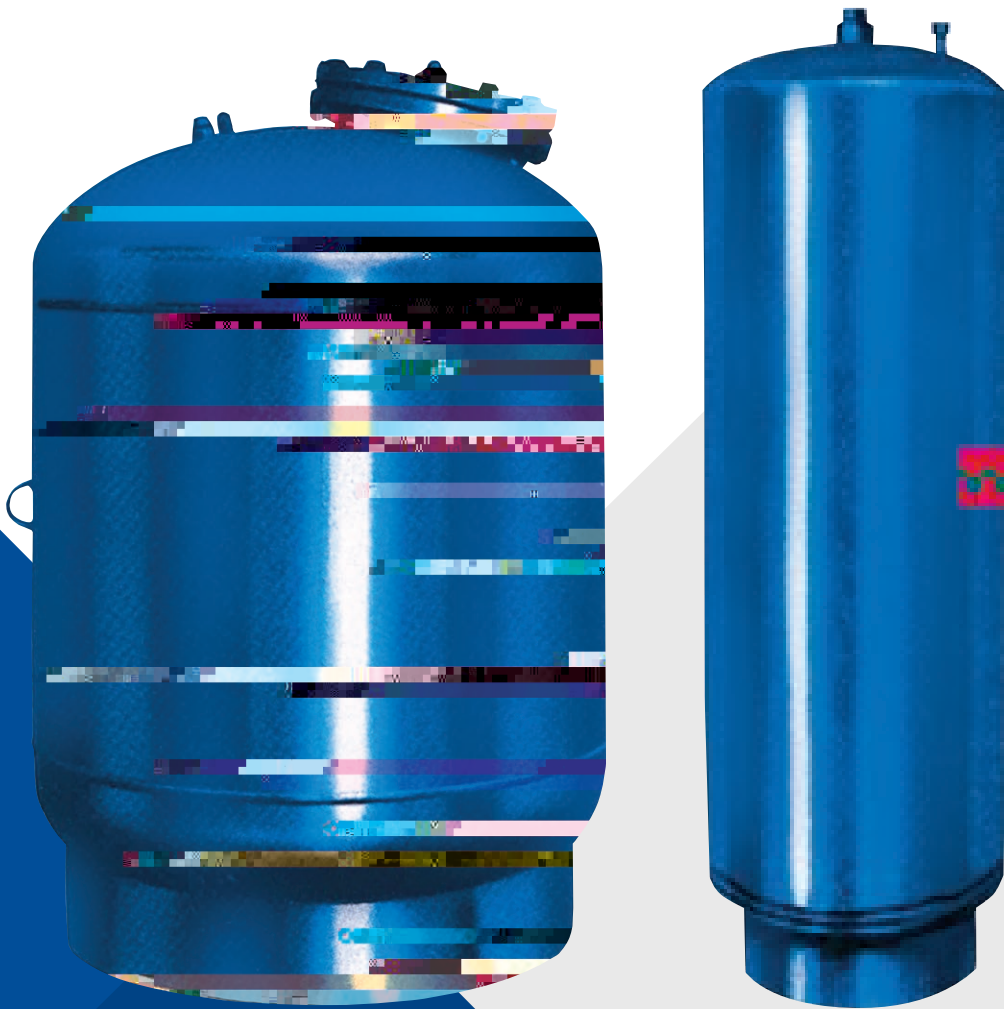




EXPANSION TANKS

1060 SERIES



AURORA 1060 SERIES EXPANSION TANKS

Manufactured in accordance with ASME Section VIII for unf red
 following benef ts.

pressure. This design allows for a smaller tank, since space
 expansion tank.

DETERMINING TOTAL SYSTEM VOLUME

heat exchangers, etc.



IMPORTANCE OF AIR PRECHARGE

the temperature increases. The highest temperature condition
 operating pressure (P_{MAX}). As the temperature decreases,

PIPE VOLUME IN GALLONS PER FOOT

PIPE DIAMETER	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"
Steel Pipe (Sch. 40)	0.0158	0.0277	0.0449	0.0779	0.1060	0.1740	0.2488
Copper Tube 18	N/A	0.0173	N/A	N/A	N/A	N/A	N/A
Copper Tube 20	N/A	0.0201	N/A	N/A	N/A	N/A	N/A

PIPE DIAMETER	3"	4"	5"	6"	8"	10"	12"
Steel Pipe (Sch. 40)	0.384	0.66	1.04	1.51	2.61	4.11	5.82
Copper Tube	0.354	0.622	0.971	1.39	2.43	3.78	5.46

WATER CONTENT IN HEAT EXCHANGERS

SHELL DIAMETER	GALLONS PER FOOT FOR SHELL LENGTH	
	IN SHELL	IN TUBES
4"	0.425	0.225
6"	1.00	0.50
8"	1.85	1.00
10"	2.40	1.20
12"	4.00	2.20
14"	5.00	2.50
16"	6.50	3.50
18"	8.00	4.50
20"	10.0	5.50
24"	15.0	7.50

PUMP FEATURES

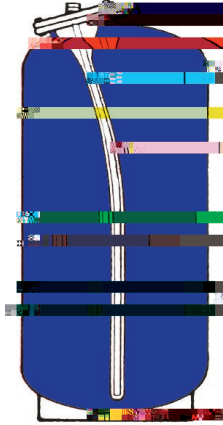
UNDERSTANDING HOW A BLADDER STYLE EXPANSION TANK FUNCTIONS

CONDITION 1: SYSTEM PRESSURE AT 12 PSI (83 KPA) COLD WATER, P_{MIN}

System filled to minimum operating pressure. In this example, 12 psi

tank as shipped from factory. Always check air pressure with tire gauge. If low, add air.

), Bladder is empty.



CONDITION 2: SYSTEM PRESSURE AT 20 PSI (138 KPA) HEATED WATER

of maximum system temperature.

compresses the air.

system pressure, or 20 psi.

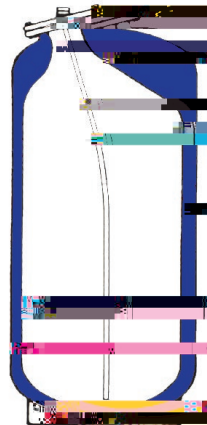


CONDITION 3: SYSTEM PRESSURE AT 25 PSI (172 KPA) AT MAX. TEMPERATURE

system temperature.

Expanded water fills bladder and further compresses the air.

),

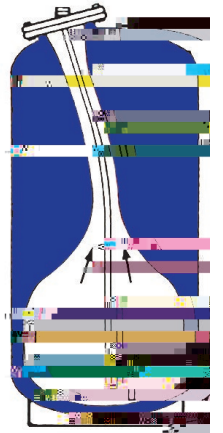


CONDITION 4: SYSTEM PRESSURE AT 20 PSI (138 KPA) HEATED WATER

half of maximum temperature.

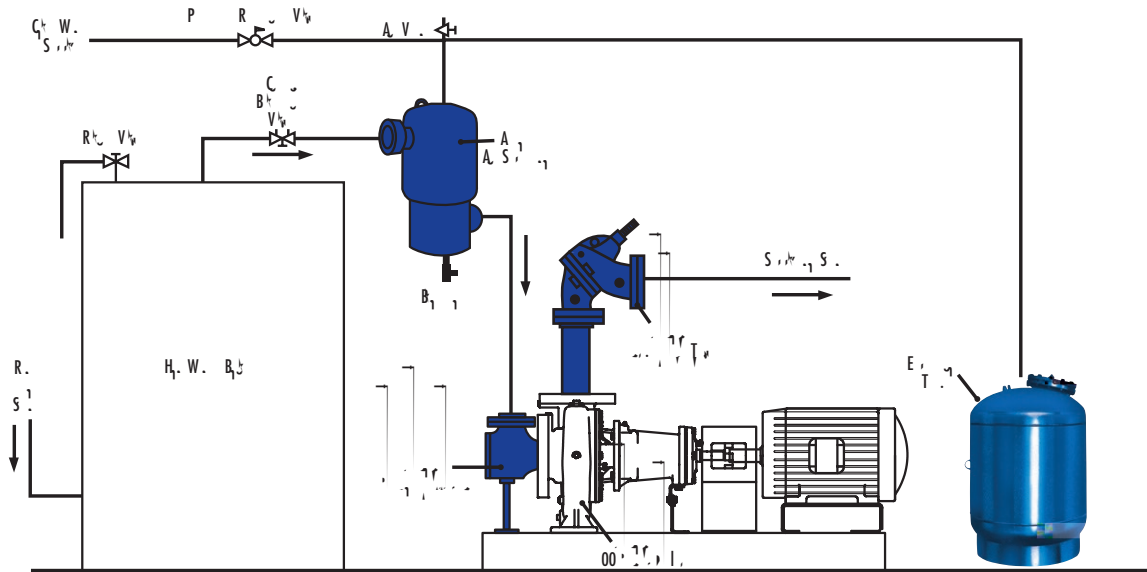
drawn back into systems.

system pressure of 20 psi.

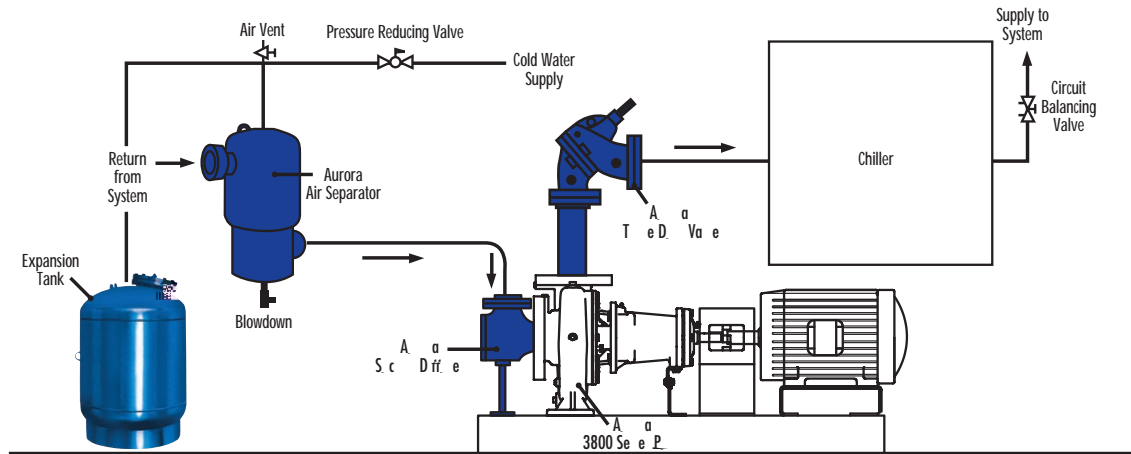


DIMENSION DETAILS

FOR BOILER APPLICATIONS



FOR CHILLER APPLICATIONS



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WQEMA