



SIZING THE HOT WATER BUFFER TANKS

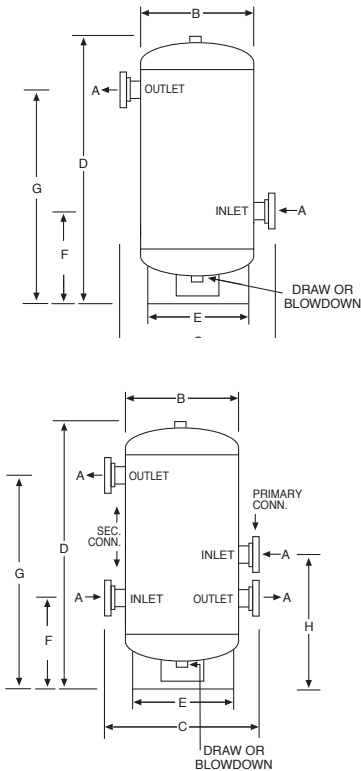
For Adding Capacity to Closed, Non-Potable Hot Water Systems

Required Information for Properly Sized Hot Water Buffer Tank

- Minimum Boiler Output (in BTU/hr)
- Minimum Rate of Heat Extraction from tank (LOAD in BTU/hr)
- Temperature Differential
- Boiler Cycle Time

$$\frac{\text{Manufacturer's recommended minimum boiler cycle time* (Minutes)} \times \left(\text{Minimum Boiler Output (BTU/Hr.)} - \text{Minimum System Load** (BTU/Hr.)} \right)}{\text{Temperature differential within tank*** (°F)} \times 500} = \text{Total Buffer Tank Size (Gallons)}$$

* Typical 1-10 min. (use 5 if unknown).
 ** Assume to be 0 if no system load or if rate is unknown.
 *** Temperature differential can range between 5 to 25°F, 10°F is typical.



ASME Models

Model Number	Number of Ports	Volume Gal	Dimensions (Inches)								Shipping Weight (lbs.)	
			Conn. Size A	B	C	D	E	F	G	H	125 PSI	150 PSI
HWBT120-2	2	120	2	24	33 3/8	55 3/4	16	15	45	-	254	279
HWBT120-3	2	120	3	24	33 3/8	55 3/4	16	15	45	-	268	295
HWBT200-2	2	200	2	30	39	62 1/2	24	21 1/2	45 1/2	-	475	523
HWBT200-3	2	200	3	30	39 1/8	62 1/2	24	21 1/2	45 1/2	-	490	539
HWBT300-2	2	300	2	36	45 1/8	80 3/8	30	32 1/4	61 1/4	-	668	735
HWBT300-3	2	300	3	36	45 1/8	80 3/8	30	32 1/8	61	-	683	751
HWBT120-2/2	4	120	2/2	24	33 3/8	55 3/4	16	15	45	27	267	294
HWBT120-2/3	4	120	2/3	24	33 3/8	55 3/4	16	15	45	27	282	310
HWBT120-3/3	4	120	3/3	24	33 3/8	55 3/4	16	15	45	27	297	327
HWBT120-4/4	4	120	4/4	24	33 3/8	55 3/4	16	15 1/2	44 1/2	27 1/2	338	372
HWBT200-2/2	4	200	2/2	30	39	62 1/2	24	21 1/2	45 1/2	35 1/2	489	538
HWBT200-2/3	4	200	2/3	30	39	62 1/2	24	21 1/2	45 1/2	35 1/2	503	553
HWBT200-3/3	4	200	3/3	30	39 1/8	62 1/2	24	21 1/2	45 1/2	35 1/2	518	570
HWBT200-4/4	4	200	4/4	30	39 1/8	62 1/2	24	21 1/2	45 1/2	35 1/2	560	617
HWBT300-2/2	4	300	2/2	36	45 1/8	80 3/8	30	32 1/4	61 1/4	48 3/4	682	750
HWBT300-2/3	4	300	2/3	36	45 1/8	80 3/8	30	32 1/8	61	48 3/8	696	766
HWBT300-3/3	4	300	3/3	36	45 1/8	80 3/8	30	32 1/8	61	48 3/8	711	782
HWBT300-4/4	4	300	4/4	36	45 1/8	80 3/8	30	32 1/8	61	48 3/8	753	828



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