



**SHIPPENSBURG PUMP CO. INC.**

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**Pride**

**Quality**

**Craftsmanship**

**BULLETIN 170**

*Revised 1/14*



## **ABT-H Series**

**AIR BREAK TANK  
FOR HYDRONIC SYSTEMS**

*Receivers Available*

*30 Gallon / 50 Gallon / 100 Gallon*

Centrifugal Pumps designed for many years of dependable service with low maintenance.

3500 RPM operation provides low inertia for intermittent operation.

Galvanized steel receivers.

Pump has no internal bearings. (Motor bearings refer to motor manufacturer's instructions.)

Gauge glass assembly for viewing water level.

Two pump openings on all units.

Low water cutoff float switch.

1" solenoid valve and float switch with air gap assembly.

**SHIPCO<sup>®</sup>  
PUMPS**

are equipped with Mechanical Seals rated up to a standard 250°F.  
*Higher temperature seals and special faces available upon request.*

The Air Break Tank (ABT-H) unit comes standard with either a simplex or duplex bronze fitted Pump & Motor assembly and a 3/16" thick black steel receiver. Receivers are available in three popular sizes – 30 gallon, 50 gallon and 100 gallon. All receivers have a gauge glass assembly, a low-water cutoff float switch and a solenoid valve and float switch assembly with an air gap.

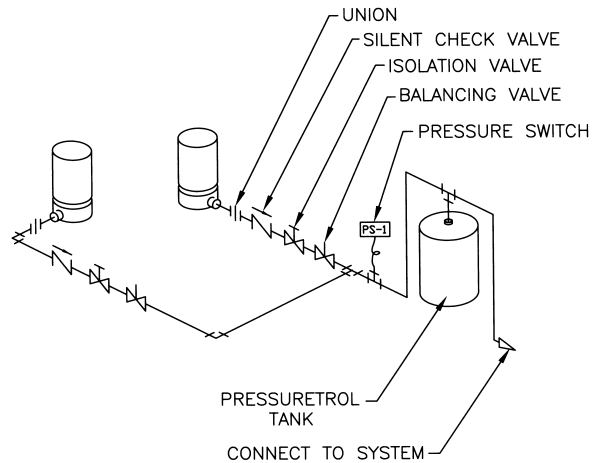
Air break tank units provide a positive air gap fitting to eliminate back flow and possible contamination of the water supply. It is used anywhere system water loss is present. The unit functions as an air break tank when the optional float switch and solenoid valve are supplied with an air gap fitting. Excellent for process loads, cooling towers, hydronic applications or anywhere loss of water necessitates make-up because they provided a detached central make-up supply reservoir.

Selection for each pump is based on the maximum system make-up load plus a 25% minimum reserve. For example, a system with 20 GPM make-up would require a 25 GPM duplex pumping unit. The discharge pressure would be based on vertical lift plus any back pressure and pipe friction loss. The general tank size should be based on a two-minute make-up reserve.

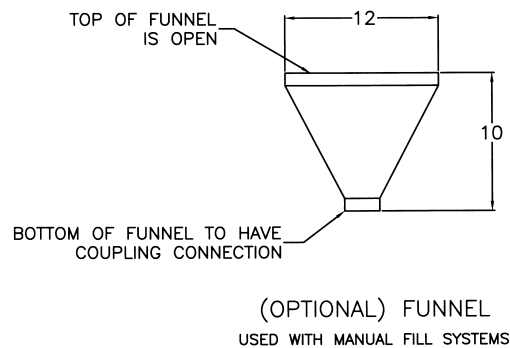
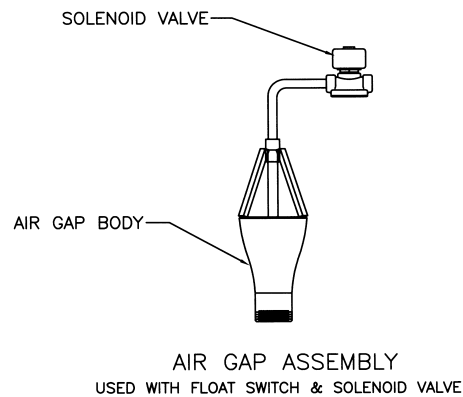
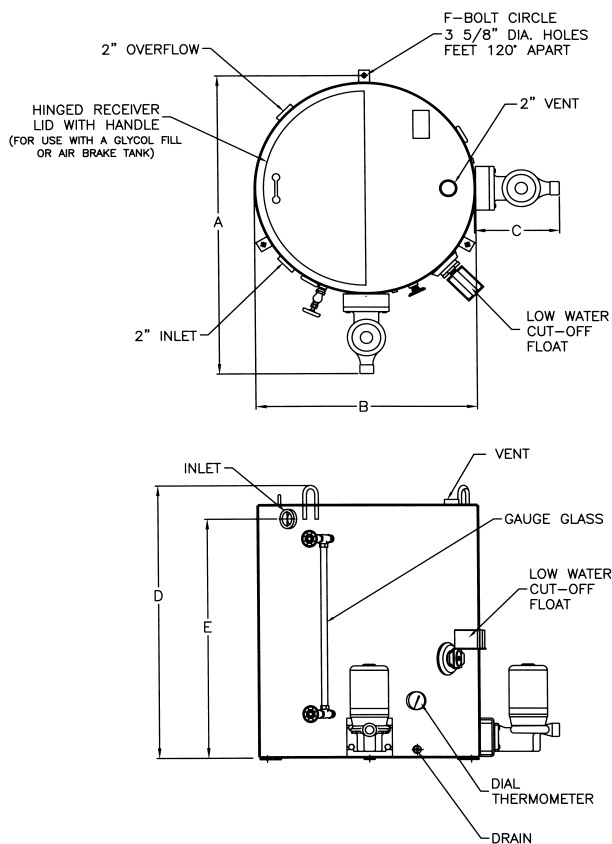
The unit is fitted to an additional diaphragm tank placed in the discharge piping along with a pressure switch to eliminate short cycling of the pump.

As a seal flush unit, pumps should be selected with a minimum capacity of 2½ GPM for each stuffing box to be sealed. The discharge pressure should be based on adding 5 PSIG to shutoff pressure of the pump to be sealed plus any vertical lift from FT unit to the pump being flushed. Example: A pump with a shutoff pressure of 20 PSIG (46.20 ft.) plus a vertical lift of 5 PSIG (11.55 ft.) would require a pump rated at 30 PSIG.

TYPICAL PIPING DIAGRAM  
HOT WATER BOILER SYSTEMS  
(USED TO PREVENT SHORT CYCLING)



RECEIVER NO.	30 GAL	50 GAL	100 GAL
TANK DIMENSIONS	18 7/8 x 24	18 7/8 x 36	30 x 36
A	32 1/2	32 1/2	43 1/2
B	19 1/2	19 1/2	30 1/2
C	13	13	13
D	25	37	37
E	22 1/2	34 3/4	34 3/4
F	20 7/8	20 7/8	32
INLET	2"	2"	2"
OVERFLOW	2"	2"	2"
VENT	2"	2"	2"
NET STORAGE GAL.	20	33	66



## ABT-H: Air Break Tank for Hydronic Applications

GPM	PSIG	PUMP TYPE 3500 RPM	HP	RECEIVER SIZE	MODEL	
					SIMPLEX	DUPLEX
15	20	110	1/3	30	30 ABT-H1-1520	30 ABT-H2-1520
15	25	110	1/2		30 ABT-H1-1525	30 ABT-H2-1525
15	30	106	1/2		30 ABT-H1-1530	30 ABT-H2-1530
15	35	116	3/4		30 ABT-H1-1535	30 ABT-H2-1535
15	40	106	3/4		30 ABT-H1-1540	30 ABT-H2-1540
15	50	127	1-1/2		30 ABT-H1-1550	30 ABT-H2-1550
15	60	121	3		30 ABT-H1-1560	30 ABT-H2-1560
15	70	121	3		30 ABT-H1-1570	30 ABT-H2-1570
15	75	121	3		30 ABT-H1-1575	30 ABT-H2-1575
15	80	121	3		30 ABT-H1-1580	30 ABT-H2-1580
15	90	121	5		30 ABT-H1-1590	30 ABT-H2-1590
15	100	121	5		30 ABT-H1-15100	30 ABT-H2-15100
15	20	110	1/3		50	50 ABT-H1-1520
15	25	110	1/2	50 ABT-H1-1525		50 ABT-H2-1525
15	30	106	1/2	50 ABT-H1-1530		50 ABT-H2-1530
15	35	116	3/4	50 ABT-H1-1535		50 ABT-H2-1535
15	40	106	3/4	50 ABT-H1-1540		50 ABT-H2-1540
15	50	127	1-1/2	50 ABT-H1-1550		50 ABT-H2-1550
15	60	121	3	50 ABT-H1-1560		50 ABT-H2-1560
15	70	121	3	50 ABT-H1-1570		50 ABT-H2-1570
15	75	121	3	50 ABT-H1-1575		50 ABT-H2-1575
15	80	121	3	50 ABT-H1-1580		50 ABT-H2-1580
15	90	121	5	50 ABT-H1-1590		50 ABT-H2-1590
15	100	121	5	50 ABT-H1-15100		50 ABT-H2-15100
15	20	110	1/3	100		100 ABT-H1-1520
15	25	110	1/2		100 ABT-H1-1525	100 ABT-H2-1525
15	30	106	1/2		100 ABT-H1-1530	100 ABT-H2-1530
15	35	116	3/4		100 ABT-H1-1535	100 ABT-H2-1535
15	40	106	3/4		100 ABT-H1-1540	100 ABT-H2-1540
15	50	127	1-1/2		100 ABT-H1-1550	100 ABT-H2-1550
15	60	121	3		100 ABT-H1-1560	100 ABT-H2-1560
15	70	121	3		100 ABT-H1-1570	100 ABT-H2-1570
15	75	121	3		100 ABT-H1-1575	100 ABT-H2-1575
15	80	121	3		100 ABT-H1-1580	100 ABT-H2-1580
15	90	121	5		100 ABT-H1-1590	100 ABT-H2-1590
15	100	121	5		100 ABT-H1-15100	100 ABT-H2-15100
22	20	110	1/2		30	30 ABT-H1-2220
22	25	110	3/4	30 ABT-H1-2225		30 ABT-H2-2225
22	30	106	3/4	30 ABT-H1-2230		30 ABT-H2-2230
22	35	106	1	30 ABT-H1-2235		30 ABT-H2-2235
22	40	106	1-1/2	30 ABT-H1-2240		30 ABT-H2-2240
22	50	127	2	30 ABT-H1-2250		30 ABT-H2-2250
22	60	121	3	30 ABT-H1-2260		30 ABT-H2-2260
22	70	121	3	30 ABT-H1-2270		30 ABT-H2-2270
22	75	121	3	30 ABT-H1-2275		30 ABT-H2-2275
22	80	121	5	30 ABT-H1-2280		30 ABT-H2-2280
22	90	121	5	30 ABT-H1-2290		30 ABT-H2-2290
22	100	121	5	30 ABT-H1-22100		30 ABT-H2-22100
22	20	110	1/2	50		50 ABT-H1-2220
22	25	110	3/4		50 ABT-H1-2225	50 ABT-H2-2225
22	30	106	3/4		50 ABT-H1-2230	50 ABT-H2-2230
22	35	106	1		50 ABT-H1-2235	50 ABT-H2-2235
22	40	106	1-1/2		50 ABT-H1-2240	50 ABT-H2-2240
22	50	127	2		50 ABT-H1-2250	50 ABT-H2-2250
22	60	121	3		50 ABT-H1-2260	50 ABT-H2-2260
22	70	121	3		50 ABT-H1-2270	50 ABT-H2-2270
22	75	121	3		50 ABT-H1-2275	50 ABT-H2-2275
22	80	121	5		50 ABT-H1-2280	50 ABT-H2-2280
22	90	121	5		50 ABT-H1-2290	50 ABT-H2-2290
22	100	121	5		50 ABT-H1-22100	50 ABT-H2-22100

## ABT-H: Air Break Tank for Hydronic Applications

GPM	PSIG	PUMP TYPE 3500 RPM	HP	RECEIVER SIZE	MODEL	
					SIMPLEX	DUPLEX
22	20	110	1/2	100	100 ABT-H1-2220	100 ABT-H2-2220
22	25	110	3/4		100 ABT-H1-2225	100 ABT-H2-2225
22	30	106	3/4		100 ABT-H1-2230	100 ABT-H2-2230
22	35	106	1		100 ABT-H1-2235	100 ABT-H2-2235
22	40	106	1-1/2		100 ABT-H1-2240	100 ABT-H2-2240
22	50	127	2		100 ABT-H1-2250	100 ABT-H2-2250
22	60	121	3		100 ABT-H1-2260	100 ABT-H2-2260
22	70	121	3		100 ABT-H1-2270	100 ABT-H2-2270
22	75	121	3		100 ABT-H1-2275	100 ABT-H2-2275
22	80	121	5		100 ABT-H1-2280	100 ABT-H2-2280
22	90	121	5		100 ABT-H1-2290	100 ABT-H2-2290
22	100	121	5		100 ABT-H1-22100	100 ABT-H2-22100
30	20	110	3/4	50	50 ABT-H1-3020	50 ABT-H2-3020
30	25	106	3/4		50 ABT-H1-3025	50 ABT-H2-3025
30	30	106	1		50 ABT-H1-3030	50 ABT-H2-3030
30	35	106	1		50 ABT-H1-3035	50 ABT-H2-3035
30	40	106	1-1/2		50 ABT-H1-3040	50 ABT-H2-3040
30	50	127	2		50 ABT-H1-3050	50 ABT-H2-3050
30	60	121	3		50 ABT-H1-3060	50 ABT-H2-3060
30	70	121	5		50 ABT-H1-3070	50 ABT-H2-3070
30	75	121	5		50 ABT-H1-3075	50 ABT-H2-3075
30	80	121	5		50 ABT-H1-3080	50 ABT-H2-3080
30	90	121	5		50 ABT-H1-3090	50 ABT-H2-3090
30	100	121	5		50 ABT-H1-30100	50 ABT-H2-30100
30	20	110	3/4	100	100 ABT-H1-3020	100 ABT-H2-3020
30	25	106	3/4		100 ABT-H1-3025	100 ABT-H2-3025
30	30	106	1		100 ABT-H1-3030	100 ABT-H2-3030
30	35	106	1		100 ABT-H1-3035	100 ABT-H2-3035
30	40	106	1-1/2		100 ABT-H1-3040	100 ABT-H2-3040
30	50	127	2		100 ABT-H1-3050	100 ABT-H2-3050
30	60	121	3		100 ABT-H1-3060	100 ABT-H2-3060
30	70	121	5		100 ABT-H1-3070	100 ABT-H2-3070
30	75	121	5		100 ABT-H1-3075	100 ABT-H2-3075
30	80	121	5		100 ABT-H1-3080	100 ABT-H2-3080
30	90	121	5		100 ABT-H1-3090	100 ABT-H2-3090
30	100	121	5		100 ABT-H1-30100	100 ABT-H2-30100

Single or Three Phase is the same price up to and including 1 HP

Three Phase motors only 1-1/2 HP and up in size

NOTE: For higher pump pressures consult factory

### ACCESSORIES:

Dial thermometer

Suction isolation valves

Discharge pressure gauge assembly

Tank material and thickness

Manual fill systems: 12" funnel, removable lid

Electrical control panels available upon request