

SINCE 1908  
**wessels**  
 company

SUBMITTAL

**CBT-SERIES**  
 CHILLED WATER BUFFER TANK

Models: CBT-50 thru CBT-3000

Submittal Sheet No. J-1005B Rev. 1 8/13/2024

Job Name _____	Submitted By _____	Date _____
Location _____	Approved By _____	Date _____
_____	Order No. _____	Date _____
Engineer _____	Notes _____	_____
Contractor _____	_____	_____
Sales Rep. _____	_____	_____

**Description:**

Wessels ASME Chilled Water Buffer Tanks (CBT) are designed for chilled water systems with insufficient water volume capacity in relation to the chiller capacity. Relatively low water volume systems require additional "buffer" capacity for the systems to eliminate problems such as excessive chiller cycling, poor temperature control, and erratic system operation. The properly sized CBT adds the necessary volume to "buffer" the system volume.

**Construction:**

Shell: Carbon Steel  
 Exterior: Primer Painted

**Design Parameters:**

Maximum Design Pressure: 125 PSIG\*  
 Temperature Range: 0°F to 450°F

\*150, 200, & 250 available

Model Number	Connection Size and Type	Tank volume (Gallons)	Tagging Information	Quantity
CBT-50-		50		
CBT-60-		60		
CBT-75-		75		
CBT-120-		120		
CBT-200-		200		
CBT-300-		300		
CBT-400-		400		
CBT-500-		500		
CBT-600-		600		
CBT-700-		700		
CBT-850-		850		
CBT-1040-		1040		
CBT-1200-		1200		
CBT-1500-		1500		
CBT-2000-		2000		
CBT-2500-		2500		
CBT-3000-		3000		

**Typical Specification**

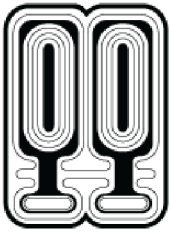
Furnish and install, as shown on plans, a CBT-\_\_\_\_\_ as manufactured by Wessels Company. The tank shall incorporate a baffle to promote tank water storage temperature stratification. The system water connections must be \_\_\_\_\_" (NPT/flanged/grooved). The CBT must be constructed in accordance with the most recent addendum of Section VIII Division 1 of the ASME Boiler and Pressure Vessel Code and constructed and stamped for \_\_\_\_\_ PSI working pressure @ 450°F.

Each tank shall be Wessels model number CBT-\_\_\_\_\_or approved equal.



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101 Tank Street Greenwood, IN 46143  
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 www.westank.com



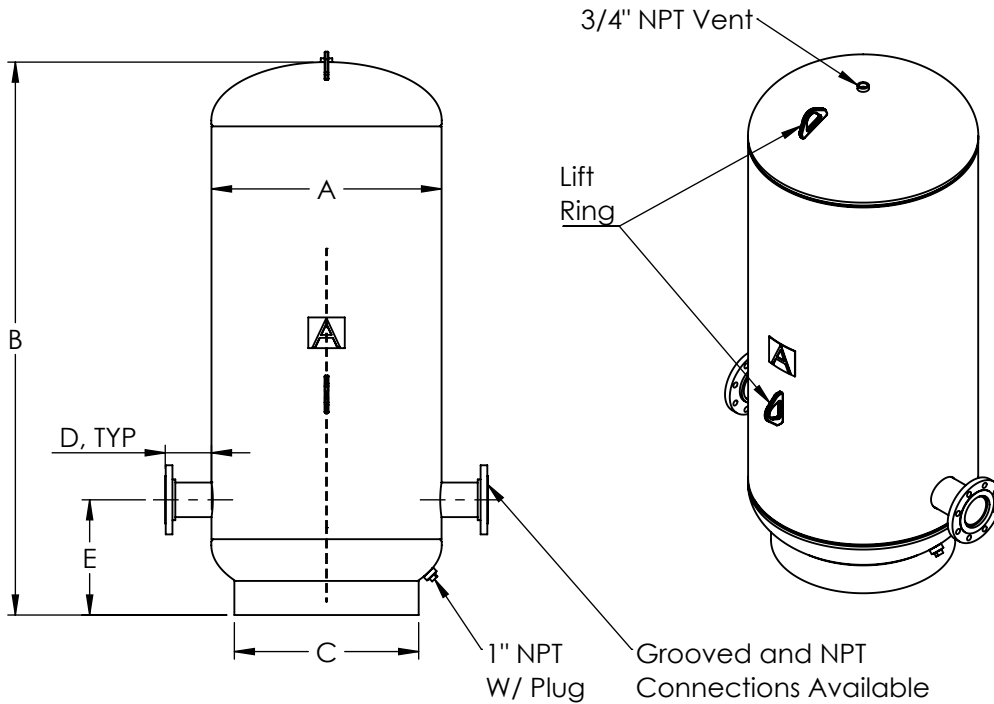
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**Model Definition**  
**CBT-50-5F-150**

- (a) (b) (c)(d) (e)
- (a) CBT Model
  - (b) Gallon Size
  - (c) Connection Size
  - (d) Connection Type  
 F = Flanged  
 G = Grooved  
 N = NPT
  - (e) Pressure  
 (blank) = 125 PSI  
 -150 = 150 PSI  
 -200 = 200 PSI  
 -250 = 250 PSI

**Dimensions & Weights:**

Model Number	Dims. In Inches				(E In Inches) for Various Connection Sizes (F/G/N)												Approx. Shipping Wt. (lbs)	
	A	B	C	D	1.5	2	2.5	3	4	5	6	8	10	12	14	16		
CBT-50	16	60	12	See Note 2	8 1/2	8 3/4	9	9 5/16	9 13/16	-	-	-	-	-	-	-	203	
CBT-60	20	48	16		9 9/16	9 13/16	10 1/16	10 3/8	10 7/8	-	-	-	-	-	-	-	-	184
CBT-75		60			9 9/16	9 13/16	10 1/16	10 3/8	10 7/8	-	-	-	-	-	-	-	-	-
CBT-120	24	72	20		12	12 1/4	12 1/4	12 1/2	13	13 1/2	14	15	16	17	-	-	-	452
CBT-200	30		24		13 3/4	14	14 1/4	14 1/2	15	15 1/2	16	17	18	19	-	-	-	609
CBT-300	36	97.5	30		15 1/2	15 3/4	15 3/4	16	16 1/2	16	17 1/2	18 1/2	19 1/2	20 1/2	-	-	-	758
CBT-400					15 1/2	15 3/4	15 3/4	16	16 1/2	16	17 1/2	18 1/2	19 1/2	20 1/2	-	-	-	-
CBT-500	42	90	36		17 1/2	17 3/4	17 3/4	18	18 1/2	19	19 1/2	20 1/2	21 1/2	22 1/2	23 1/8	24 1/2	1035	
CBT-600	48	88	42		18	18 1/4	18 1/2	18 13/16	19 5/16	19 15/16	20 3/8	21 3/8	22 7/16	23 7/16	24 1/16	25 1/16	1268	
CBT-700		100			18	18 1/4	18 1/2	18 13/16	19 5/16	19 15/16	20 3/8	21 3/8	22 7/16	23 7/16	24 7/16	25 7/16	1500	
CBT-850	54	97.5	48		20 3/4	21	21 1/4	21 1/2	22	22 1/2	22 3/4	24	24 3/4	26	26 3/4	27 3/4	2140	
CBT-1040	60	96	54		20 3/4	21	23	23 7/8	23 3/4	24 1/4	24 3/4	24 3/4	26 3/4	27 3/4	27 3/4	29 3/8	2437	
CBT-1200		110			-	-	-	23 7/8	23 3/4	24 1/4	24 3/4	24 3/4	26 3/4	27 3/4	27 3/4	29 3/8	2567	
CBT-1500	72	100	66		-	-	-	23 3/4	24 1/4	24 13/16	25 5/16	26 5/16	27 3/8	28 3/8	29	30	3078	
CBT-2000		128			-	-	-	-	24 1/4	24 13/16	25 5/16	26 5/16	27 3/8	28 3/8	29	30	4941	
CBT-2500	84	120	72		-	-	-	-	31	31 1/2	32	33	34 1/16	35 1/16	35 11/16	36 11/16	5755	
CBT-3000		142		-	-	-	-	-	-	31 1/2	32	33	34 1/16	35 1/16	35 11/16	36 11/16	6030	

**Notes:**

- Inspection openings will be provided as required by asme code
- For connections 3F/3G and below, the "D" dimension is 4". For connections 4F/4G and above, the "D" dimension is 6".
- Insulation optional
- Dimensions shown are subject to change and should not be used for pre-piping. Weights are based on max flange connection. Contact your local Wessels representative if certified dimensional drawings are required.



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