

SINCE 1908  
**wessels**  
 company

SUBMITTAL

**CBTH-SERIES**  
 CHILLED WATER BUFFER TANK HIGH CONNECTION

Models: CBTH-50 thru CBTH-3000  
 Submittal Sheet No. J-1005C Rev. 11/18/2022

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

**Description:**

Wessels ASME Chilled Water Buffer Tanks High Connections (CBTH) 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 CBTH 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: -20°F to 450°F

\*150, 200, & 250 available

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

**Typical Specification**

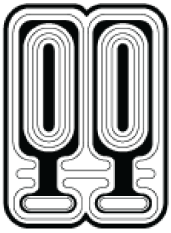
Furnish and install, as shown on plans, a CBTH-\_\_\_\_\_ as manufactured by Wessels Company. The tank shall incorporate a baffle to promote tank water storage temperature stratification. The system water connections must be \_\_\_\_\_" (NPT/flanged/grooved). The CBTH must be constructed in accordance 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 CBTH-\_\_\_\_\_or approved equal.



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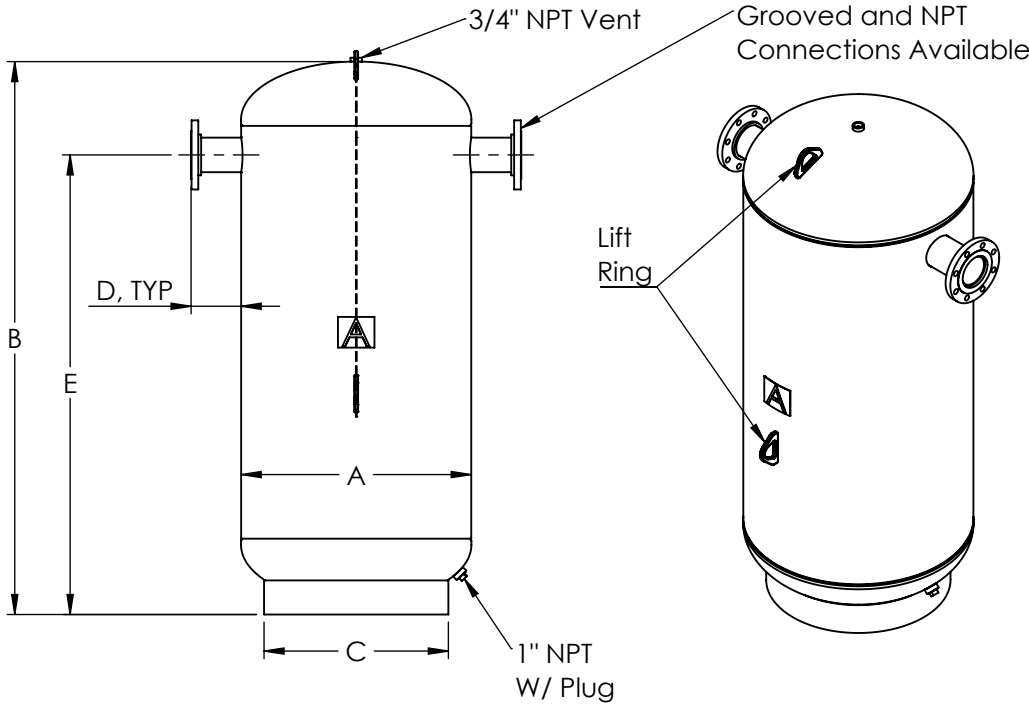


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**Model Definition**  
**CBTH-50-5F-150**  
 (a) (b) (c)(d) (e)

- (a) CBTH 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		
CBTH-50	16	60	12	See Note 2	54 3/8	54 1/8	53 7/8	53 9/16	53 1/16	-	-	-	-	-	-	-	203	
CBTH-60	48	16	20		41 5/16	41 11/16	40 13/16	40 1/2	40	-	-	-	-	-	-	-	-	184
CBTH-75	60	20	24		53 5/16	53 1/16	52 13/16	52 1/2	52	-	-	-	-	-	-	-	-	264
CBTH-120	24	66	30		56 7/8	56 5/8	56 5/8	56 3/8	55 7/8	55 3/8	55 7/8	53 7/8	52 7/8	51 7/8	-	-	-	452
CBTH-200	30	72	36		61 1/8	60 7/8	60 5/8	60 3/8	59 7/8	59 3/8	58 7/8	57 7/8	56 7/8	55 7/8	-	-	-	609
CBTH-300	42	90	42		59 3/8	59 1/8	59 1/8	58 7/8	58 3/8	58 7/8	57 3/8	56 3/8	55 3/8	54 3/8	-	-	-	758
CBTH-400	36	98	48		87	86 3/4	81 3/8	84 3/8	78 7/8	82 3/8	82 7/8	82 7/8	82 9/16	81 9/16	-	-	-	1140
CBTH-500	48	100	54		75 3/8	75 1/8	75 1/8	74 7/8	74 3/8	73 7/8	73 3/8	72 3/8	71 3/8	70 3/8	69 3/4	68 3/8	68 3/8	1384
CBTH-700	48	100	54		87 9/16	87 5/16	87 1/16	86 3/4	86 1/4	85 23/32	85 3/16	84 3/16	83 1/8	82 1/8	81 1/8	80 1/8	80 1/8	1500
CBTH-850	54	100	60		78 1/8	77 7/8	77 5/8	77 3/8	76 7/8	76 3/8	76 1/8	74 7/8	74 1/8	72 7/8	72 1/8	71 1/8	71 1/8	2140
CBTH-1040	60	110	66		78 1/8	77 7/8	75 7/8	75	75 1/8	74 5/8	74 1/8	74 1/8	72 1/8	71 1/8	71 1/8	69 1/2	69 1/2	2437
CBTH-1200	60	110	66		-	-	-	89 11/16	89 3/16	88 21/32	88 1/8	87 1/8	86 1/16	85 1/16	84 7/16	83 7/16	83 7/16	2567
CBTH-1500	72	128	72		-	-	-	81 7/8	81 3/8	80 27/32	80 5/16	79 5/16	78 1/4	77 1/4	76 5/8	75 5/8	75 5/8	3078
CBTH-2000	72	128	72		-	-	-	-	106 5/8	106 3/32	105 9/16	104 9/16	103 1/2	97 1/8	96 1/8	95 1/2	95 1/2	4941
CBTH-2500	84	142	84		-	-	-	-	102 1/8	101 19/32	101 1/16	100 1/16	99	98	97 3/8	96 3/8	96 3/8	5755
CBTH-3000	84	142	84		-	-	-	-	-	113 13/32	112 7/8	111 7/8	110 13/16	109 13/16	109 3/16	108 3/16	108 3/16	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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