

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. 1/22/2025

Job Name _____
Location _____

Engineer _____
Contractor _____
Sales Rep. _____

Submitted By _____ Date _____
Approved By _____ Date _____
Order No. _____ Date _____
Notes _____

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: 0°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

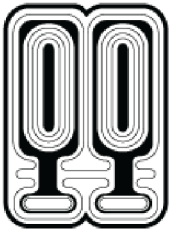
Furnish and install, as shown on plans, a CBTH-_____ as manufactured by Wessels Company. The tank shall incorporate a baffle to promote tank water storage temperature stratification. The system water connections must be _____" (NPT/flanged/grooved). The CBTH must be constructed in accordance with the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



SINCE 1908
wessels
company

101 Tank Street Greenwood, IN 46143
P: 317-888-9800 F: 317-865-7411
www.westank.com



SINCE 1908
wessels
company

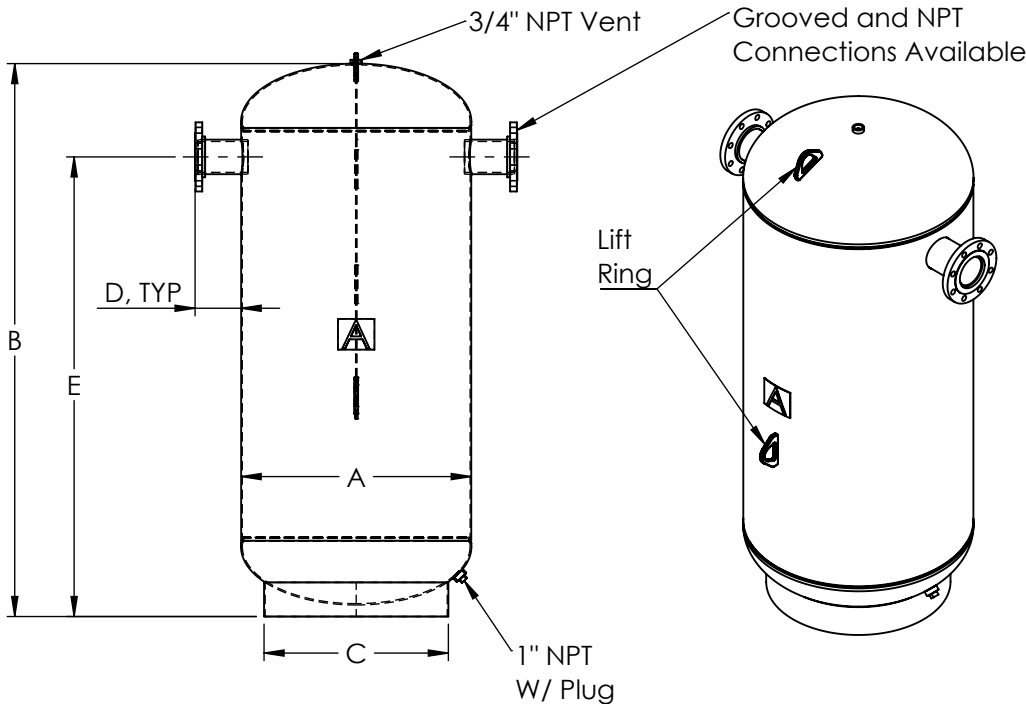
SUBMITTAL

CBTH-SERIES

CHILLED WATER BUFFER TANK HIGH CONNECTION

Models: CBTH-50 thru CBTH-3000

Submittal Sheet No. J-1005C Rev. 1/22/2025



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	53	52 3/4	52 1/2	52 3/16	51 11/16	-	-	-	-	-	-	-	203
CBTH-60	20	48	16		39 15/16	39 11/16	39 7/16	39 1/8	38 5/8	-	-	-	-	-	-	-	184
CBTH-75	24	60	20		51 15/16	51 11/16	51 7/16	51 1/8	50 5/8	-	-	-	-	-	-	-	264
CBTH-120	24	60	20		49 1/2	49 1/4	49 1/4	49	48 1/2	48	47 1/2	46 1/2	45 1/2	44 1/2	-	-	452
CBTH-200	30	72	24		59 3/4	59 1/2	59 1/4	59	58 1/2	58	57 1/2	56 1/2	55 1/2	54 1/2	-	-	609
CBTH-300	36	72	30		58	57 3/4	57 3/4	57 1/2	57	57 1/2	56	55	54	53	-	-	758
CBTH-400	36	97.5	30		84	83 3/4	83 3/4	83 1/2	83	83 1/2	82	81	80	79	-	-	823
CBTH-500	42	90	36		74	73 3/4	73 3/4	73 1/2	73	72 1/2	72	71	70	69	68 3/8	67	1035
CBTH-600	48	88	42		71 1/2	71 1/4	71	70 11/16	70 3/16	69 9/16	69 1/8	68 1/8	67 1/16	66 1/16	65 1/16	64 1/16	1268
CBTH-700	48	100	42		83 1/2	83 1/4	83	82 11/16	82 3/16	81 9/16	81 1/8	80 1/8	79 1/16	78 1/16	77 1/16	76 1/16	1500
CBTH-850	54	97.5	48		78 1/4	78	77 3/4	77 1/2	77	76 1/2	76 1/4	75	74 1/4	73	72 1/4	71 1/4	2140
CBTH-1040	60	96	54		76 3/4	76 1/2	74 1/2	73 5/8	73 3/4	73 1/4	72 3/4	72 3/4	70 3/4	69 3/4	69 3/4	68 1/8	2437
CBTH-1200	60	110	54		-	-	-	87 5/8	87 3/4	87 1/4	86 3/4	86 3/4	84 3/4	83 3/4	83 3/4	83 1/8	2567
CBTH-1500	72	100	66		-	-	-	77 3/4	77 1/4	76 11/16	76 3/16	75 3/16	74 1/8	73 1/8	72 1/2	71 1/2	3078
CBTH-2000	72	128	66		-	-	-	-	105 1/4	104 11/16	104 3/16	103 3/16	102 1/8	101 1/8	100 1/2	99 1/2	4941
CBTH-2500	84	120	72		-	-	-	-	90 1/2	90	89 1/2	88 1/2	87 7/16	86 7/16	85 13/16	84 13/16	5755
CBTH-3000	84	141	72		-	-	-	-	-	112	111 1/2	110 1/2	109 7/16	108 7/16	107 13/16	106 13/16	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.



SINCE 1908
wessels
company

101 Tank Street Greenwood, IN 46143
P: 317-888-9800 F: 317-865-7411
www.westank.com