

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. 11/16/2023

| | | |
|------------------|--------------------|------------|
| 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: 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

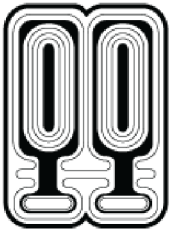
Furnish and install, as shown on plans, a CBTH-_____ as manufactured by Wessels Company. The tank shall incorporate a baffle to promote tank water storage temperature stratification. The system water connections must be _____" (NPT/flanged/grooved). The CBTH must be constructed in accordance with the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



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101 Tank Street Greenwood, IN 46143
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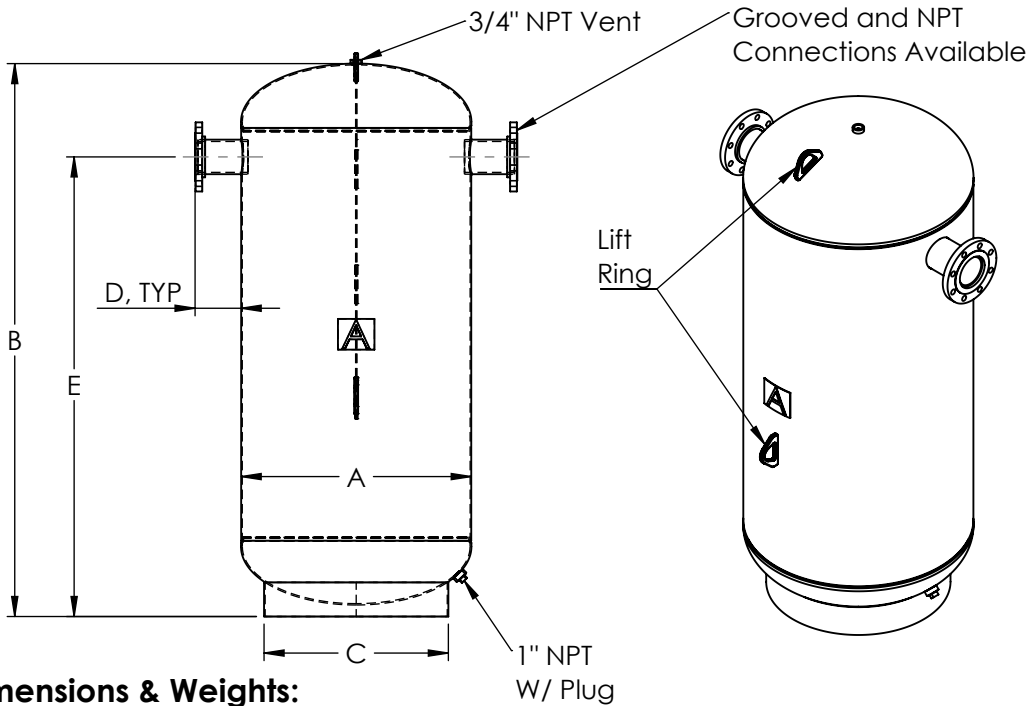


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Model Definition
CBTH-50-5F-150
 (a) (b) (c)(d) (e)

- (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 | 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 | | | | | 51 15/16 | 51 11/16 | 51 7/16 | 51 1/8 | 50 5/8 | - | - | - | - | - | - | - | - | - |
| 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 | | 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 | 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 | | | | | 84 | 83 3/4 | 83 3/4 | 83 1/2 | 83 | 83 1/2 | 82 | 81 | 80 | 79 | - | - | - | - |
| 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 | 1384 | |
| 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 | | 110 | | | - | - | - | 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 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 | | 128 | | | - | - | - | - | - | 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 | | 141 | | | - | - | - | - | - | - | 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.



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