



Peak-performance
heating systems

Revision 2 – January 2019

BUFFMAX Specifications

BUFFMAX is a buffer tank, storage tank and a hydraulic separator used to optimize the performance of many kinds of heating or water-cooling systems, (see the CW option).

IDENTIFICATION

As manufactured by THERMO 2000 Inc., the water tank required for a closed-circuit system must be a:

BUFFMAX 30	<input type="checkbox"/>	BUFFMAX 120A	<input type="checkbox"/>
BUFFMAX 50	<input type="checkbox"/>	BUFFMAX 175A	<input type="checkbox"/>
BUFFMAX 80	<input type="checkbox"/>	BUFFMAX 200A	<input type="checkbox"/>
BUFFMAX 120	<input type="checkbox"/>		

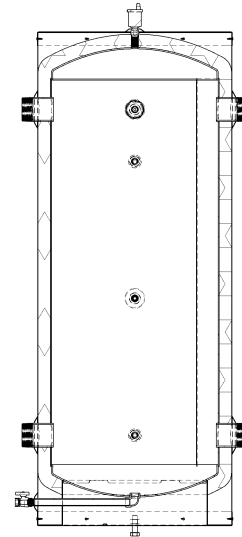
TANK DESCRIPTION

BUFFMAX 30, 50, 80 and 120 models

The tank is made of high-density carbon steel. All joints are arc-welded using the MIG/Argon method. The tank is designed for a maximum allowable working pressure of 150 psi and undergoes a hydrostatic test of 195 psi. The tank's outer steel surface is coated with baked powder-based paint.

BUFFMAX 120A, 175A and 200A models

The tank **complies with the requirements of the ASME standard** "Boiler and Pressure Vessel Code, Section VIII, div.1". The tank is made of high-density carbon steel. All joints are arc-welded using the GMAW method. The tank is designed for a maximum allowable working pressure of 125 psi @ 350°F and undergoes a hydrostatic test of 163 psi. The tank's outer steel surface is coated with baked epoxy-based paint.



STANDARD FEATURES

- The tank has a total of 4 openings, 2 on each side. The tanks use NPTM connectors with the following standard sizes:

BUFFMAX 30: 1 ½"	BUFFMAX 80: 2 1/2"	BUFFMAX 120A: 3"	BUFFMAX 200A: 3"
BUFFMAX 50: 2"	BUFFMAX 120: 3"	BUFFMAX 175A: 3"	

- ½" automatic air vent with a shut-off valve for easy replacement.
- 2 ½" diameter temperature and pressure indicator on the front
- Immersion well included
- Three ½" connections for the location of the well or to enable wells to be added
- 2" HFC-free polyurethane insulation limiting heat loss to 1/2°F per hour
- ¾" drain valve located at the lowest point of the tank
- The tank has adjustable legs
- ASME models (BUFFMAX 120A, 175A and 200A) have lifting lugs

THERMO 2000 INC.

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TEL.: 819 826-5613 FAX: 819 826-6370



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AVAILABLE OPTIONS

2 additional standard connections added

BUFFMAX-BXT (Available for BUFFMAX 30, 50, 80 and 120 models only)

Change the diameter of the standard connections

	XX	1 ½" NPT	2" NPT	2 ½" NPT	3" NPT
BUFFMAX 30 - XXNPT		STD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BUFFMAX 50 - XXNPT		<input type="checkbox"/>	STD	<input type="checkbox"/>	<input type="checkbox"/>
BUFFMAX 80 - XXNPT		<input type="checkbox"/>	<input type="checkbox"/>	STD	<input type="checkbox"/>
BUFFMAX 120 - XXNPT		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	STD
BUFFMAX 120A - XXNPT		ND	<input type="checkbox"/>	<input type="checkbox"/>	STD
BUFFMAX 175A - XXNPT		ND	<input type="checkbox"/>	<input type="checkbox"/>	STD
BUFFMAX 200A - XXNPT		ND	<input type="checkbox"/>	<input type="checkbox"/>	STD

Substitute standard connections for Class 150 flanges

	YY	1 ½ FLG	2 FLG	2 ½ FLG	3 FLG	4 FLG
BUFFMAX 30 - YYFLG		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BUFFMAX 50 - YYFLG		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BUFFMAX 80 - YYFLG		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BUFFMAX 120 - YYFLG		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BUFFMAX 120A - YYFLG		ND	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BUFFMAX 175A - YYFLG		ND	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BUFFMAX 200A - YYFLG		ND	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Add elastomeric insulation for water-cooling applications to prevent condensation on the tank's outer surface.

BUFFMAX-CW

WARRANTIES

Heating Application

The tank is covered by a 10-year warranty for closed-circuit residential and commercial heating applications. Parts and accessories are guaranteed for 2 years.

Water-Cooling Application

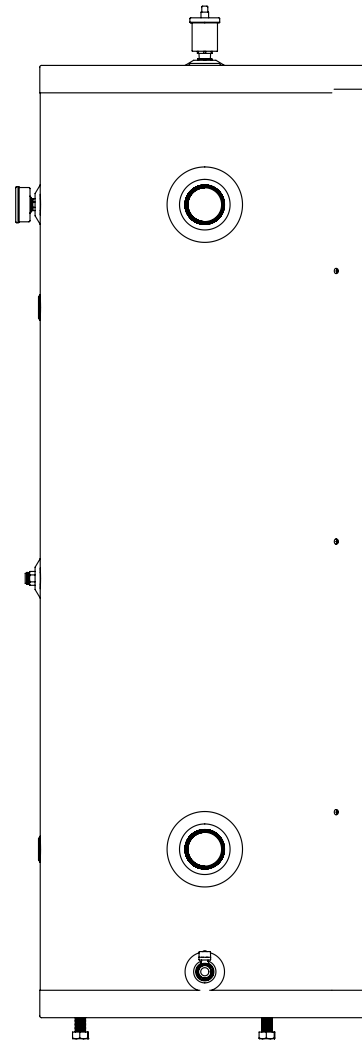
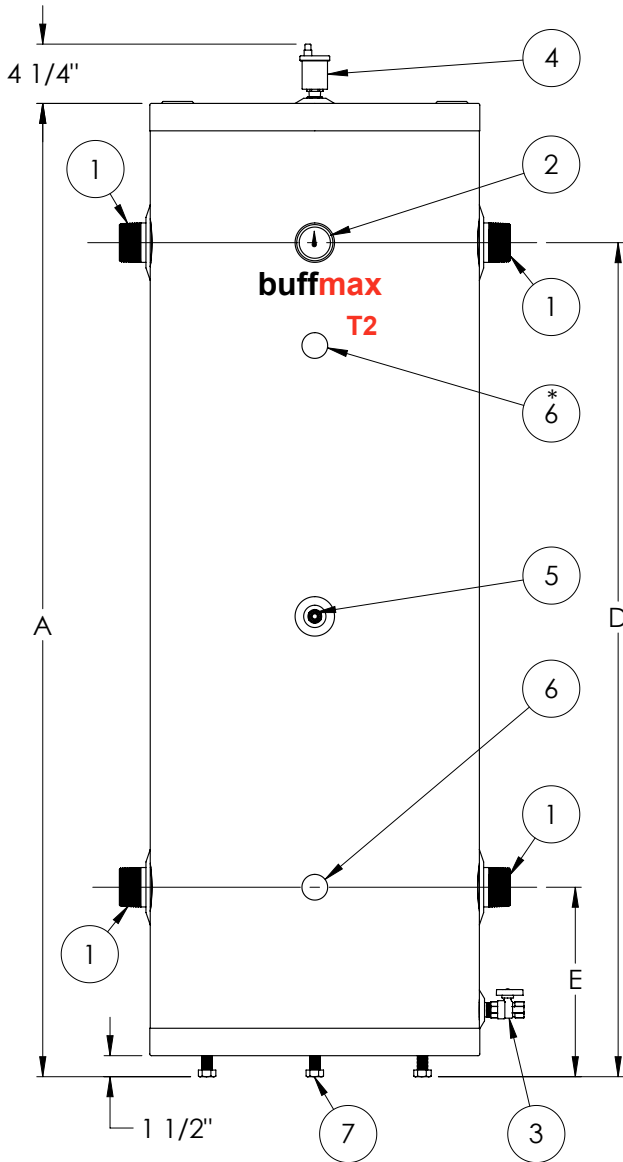
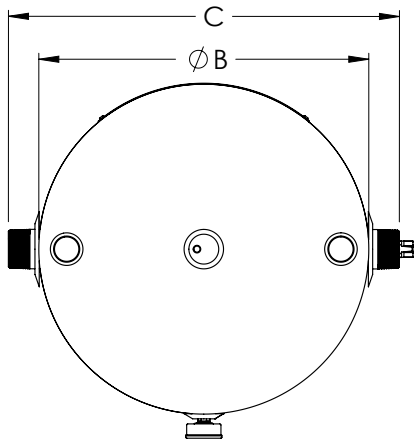
The tank is covered by a 5-year warranty for closed-circuit residential and commercial water-cooling applications with the **CW option**. Parts and accessories are guaranteed for 2 years.

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TECHNICAL DATA

Model	Volume (Us Gal)	Standard connection MNPT	Optional connection MNPT	Optional Flange connection Class 150	Weight equipment	Shipping weight
BUFFMAX 120	119	3"	1 1/2"; 2"; 2 1/2"	1 1/2"; 2"; 2 1/2"; 3"; 4"	330 lbs	380 lbs
BUFFMAX 80	80	2 1/2"	1 1/2"; 2"; 3"	1 1/2"; 2"; 2 1/2"; 3"; 4"	245 lbs	325 lbs
BUFFMAX 50	50	2"	1 1/2"; 2 1/2"; 3"	1 1/2"; 2"; 2 1/2"; 3"; 4"	160 lbs	230 lbs
BUFFMAX 30	30	1 1/2"	1 1/2"; 2"; 2 1/2"; 3"	1 1/2"; 2"; 2 1/2"; 3"; 4"	125 lbs	185 lbs



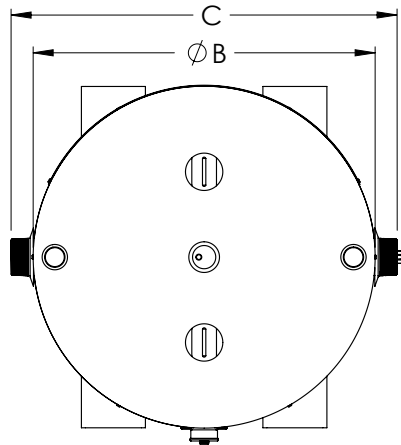
COMPONENT IDENTIFICATION

- 1 Boiler water connection
- 2 Temp. & Press. indicator 1/2NPT
- 3 Tank drain valve 3/4NPT
- 4 Automatic air vent 1/2NPT
- 5 Immersion well 1/2NPT
- 6 Removable Caps to add immersion well
- 7 Adjustable legs

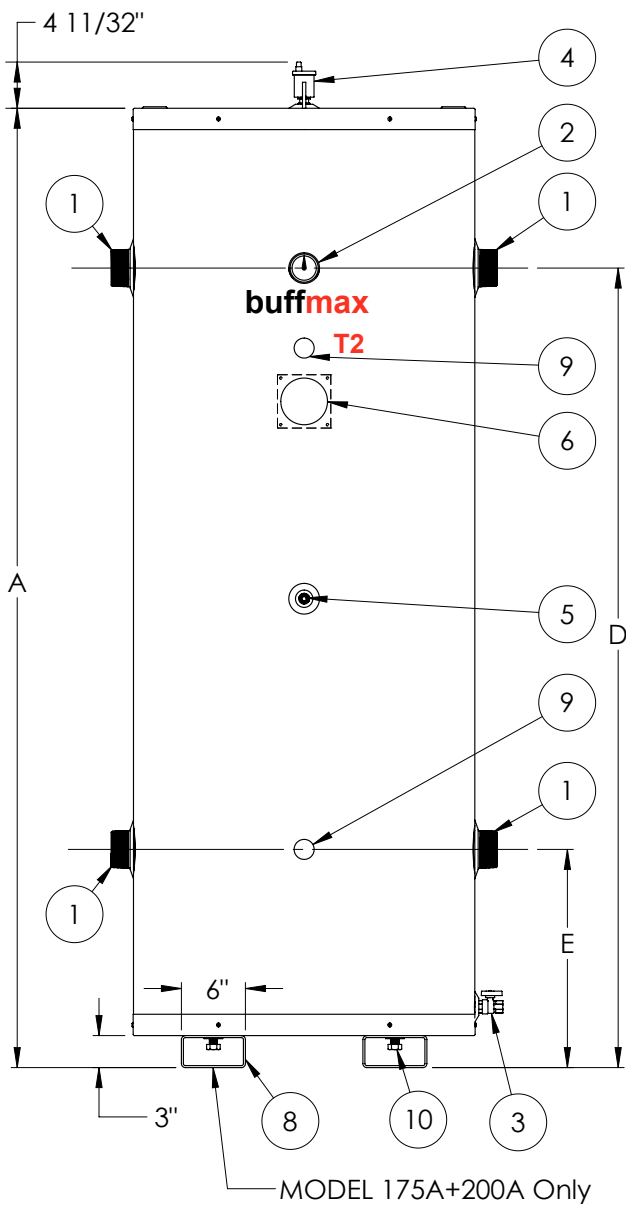
* Models 80 and 120 only.

DIMENSIONS

MODEL	A	B	C	D	E
	in.	in.	in.	in.	in.
BUFFMAX 30	56	18	21 1/2	46 1/4	13 1/4
BUFFMAX 50	57	22	25 1/2	46 3/4	13 3/4
BUFFMAX 80	71	24	28 1/2	61	14
BUFFMAX 120	72 1/2	28	33 1/2	62	15



TECHNICAL DATA					
Model	Volume (Us Gal)	Standard connection MNPT	Optional connection MNPT	Optional Flange connection Class 150	Shipping weight (lbs)
BUFFMAX 200A	200	3"	2"; 2 1/2"	2"; 2 1/2"; 3"; 4"	590
BUFFMAX 175A	175	3"	2"; 2 1/2"	2"; 2 1/2"; 3"; 4"	550
BUFFMAX 120A	120	3"	2"; 2 1/2"	2"; 2 1/2"; 3"; 4"	405



COMPONENT IDENTIFICATION

- 1 Boiler water connection
- 2 Temp. & Press. indicator 1/2NPT
- 3 Tank drain valve 3/4NPT
- 4 Automatic air vent 1/2NPT
- 5 Immersion well 1/2NPT
- 6 Asme Code Nameplate Access
- 7 Lifting lugs
- 8 Removable Tube for ForkLift
- 9 Removable Caps to add immersion well
- 10 Adjustable legs

DIMENSIONS

MODEL	A	B	C	D	E
	in.	in.	in.	in.	in.
BUFFMAX 120A	73 1/4	28	33 1/4	60 3/8	17 3/8
BUFFMAX 175A	82 1/8	32	37 1/4	67 3/16	20 1/2
BUFFMAX 200A	90	32	37 1/4	75	20 1/2