

BUFFER TANK
STORAGE TANK
HYDRAULIC SEPARATOR

buffmax



OPTIMIZE ANY TYPE OF HYDRONIC SYSTEM

TEMPERATURE AND PRESSURE INDICATOR

AUTOMATIC AIR VENT

LARGE-DIAMETER CONNECTIONS

AVAILABLE FROM
30 - 200 US GALLONS

ASME CERTIFICATION*

10-YEAR WARRANTY



**THERMO
2000**

Peak-performance
heating systems

buffmax

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The tank that makes all the difference

BUFFER TANK

The **BUFFMAX** optimizes runtimes and limits on/off cycling of the energy source. When the minimum system load is lower than the energy source's minimum capacity, the system will generate short cycles. This causes premature wear of the equipment and substantially decreases the system's energy efficiency.

STORAGE TANK

Any hydronic heating system with the **BUFFMAX** stores energy like a battery. When a demand is made for limited heating (for example, when there is little difference between indoor and outdoor temperatures) or when it is used with a low-capacity energy source, the energy required will first come from the tank's thermal storage.

HYDRAULIC SEPARATOR

Adding a **BUFFMAX** tank to a hydronic heating system helps to evacuate air, eliminates impurities, and ensures the optimal functioning of the pumps—not only for the energy source but also for the distribution system.

BY REDUCING ON/OFF CYCLING, IT IMPROVES AND MAXIMIZES THE HEATING SYSTEM'S EFFICIENCY—ALL WHILE REDUCING MAINTENANCE AND REPAIR COSTS.



- 1- AUTOMATIC AIR VENT
- 2- BOILER WATER CONNECTION
- 3- TEMPERATURE AND PRESSURE INDICATOR
- 4- 3/4" NPT DRAIN VALVE
- 5- IMMERSION WELL
- 6- 3/4" DRAIN

STANDARD EQUIPMENT

- 2" insulation
- 150 psi maximum operating pressure (125 psi for ASME units)
- 4 openings for hydraulic separation
- Immersion well with multiple positions
- Tanks available in 7 sizes
- ASME models available*
- Adjustable legs
- 10-year warranty

OPTIONAL EQUIPMENT

- Extra tappings
- Custom tapping diameters
- Flange connections
- Aquastat control
- Insulation for chilled water



The **BUFFMAX** tank is recommended to optimize the performance of several different types of heating systems:

- Low-mass boilers
- Biomass systems
- Geothermal and heat pump applications
- Multi-zone systems
- Solar energy systems



Selecting the right size

The buffer tank size is selected to ensure a minimum runtime for the boiler. Use the following equation to determine the right size for the application:

$$\text{Tank capacity (US gallon)} = \frac{\text{Desired run time} \times (\text{Minimum output} - \text{Minimum system load})}{(\text{System Delta T} \times 500)}$$

- Desired runtime: The minimum runtime of the boiler in minutes, between 5 and 10 minutes
- Minimum output: The boiler's minimum capacity (BTU/h)
- Minimum system load: The building's smallest heat demand (BTU/h)
- System Delta T: The temperature differential in degrees Fahrenheit between the tank's inlet and outlet, typically between 10°F and 20°F



MODELS AND SPECS

MODEL	VOLUME (US GAL.)	A	B	C	D	E	STANDARD CONNECTIONS	WEIGHT (LB)
BUFFMAX 30	30	56.25"	18"	21.5"	46.25"	13.25"	1 1/2" NPT	115
BUFFMAX 50	50	57.25"	22"	25.5"	46.75"	13.75"	2" NPT	150
BUFFMAX 80	80	71.75"	24"	28.5"	61"	14"	2 1/2" NPT	235
BUFFMAX 120	119	73.75"	28"	33.5"	62"	15"	3" NPT	315
BUFFMAX 120A*	120	73.75"	28"	33.25"	60.375"	17.375"	3" NPT	405
BUFFMAX 175A*	175	81.5"	32"	37.25"	66.375"	19.75"	3" NPT	550
BUFFMAX 200A*	200	89.5"	32"	37.25"	74.25"	19.75"	3" NPT	590

10-YEAR WARRANTY
ON THE TANK

2-YEAR WARRANTY
ON MECHANICAL PARTS



Thermo 2000 manufactures peak-performance heating systems for domestic hot water and hydronic heating systems. Since 1978, the company's innovations have provided sustainable solutions for residential, commercial and institutional applications.

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