

INSTRUCTIONS



BUFFER STEEL TANKS

ST-500AF, ST-300AF



HOT WATER STORAGE TANK ST-300AF, ST-500AF



1. Product description

Storage tanks ST-300AF and ST-500AF are designed for accumulation and subsequent distribution of thermal energy from solid fuel boilers, hot water fireplaces, heat pumps, etc. It is not possible to install the optional heating coils in the tanks; it is only possible to directly install the auxiliary electric heaters.

1.1. Volume series

300 and 500 litres

1.2. Thermal insulation

The tanks are insulated with unremovable CFC-free hardened PUR foam with thickness of 50 mm. The outer surface of the insulation consists of PVC cover including the top cover made of a hardened plastic.

Caution! The heater must not be operated at a higher temperature than 90°C. Operation at a higher temperature can cause permanent damage to the insulation due to loss of its shape and consistency.

1.3. General information

This document is an integral part of the product. Please read the instructions in this document carefully, as they contain important information about safety, installation, use and maintenance of the tank. Keep this document in a safe place for future reference.

This device is designed to store heating water and its subsequent distribution. The device must be connected to the heating system and heat sources. Using the storage tank for purposes other than stated in the documentation is prohibited and the manufacturer accepts no responsibility for any damage caused by improper or incorrect use. The storage tank must not be used as a container of domestic hot water! In case of DHW preparation, Fresh set has to be used.

The installation must be done by a qualified person in accordance with applicable regulations and standards and according to the manufacturer's instructions; otherwise the warranty will be void.

2. Specifications

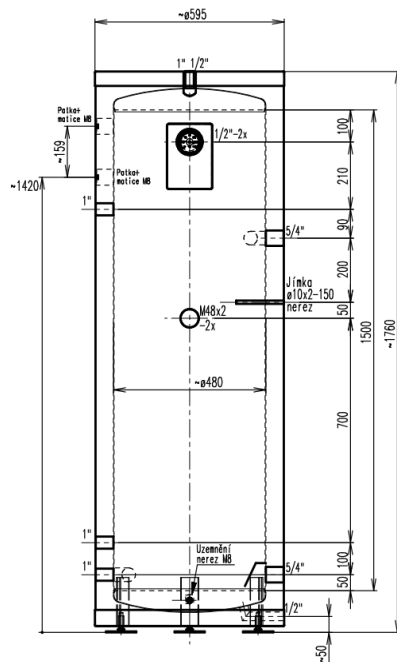
Tank material: steel ČSN 11 321 / ČSN 11 375

Tank inside surface coating: no modification

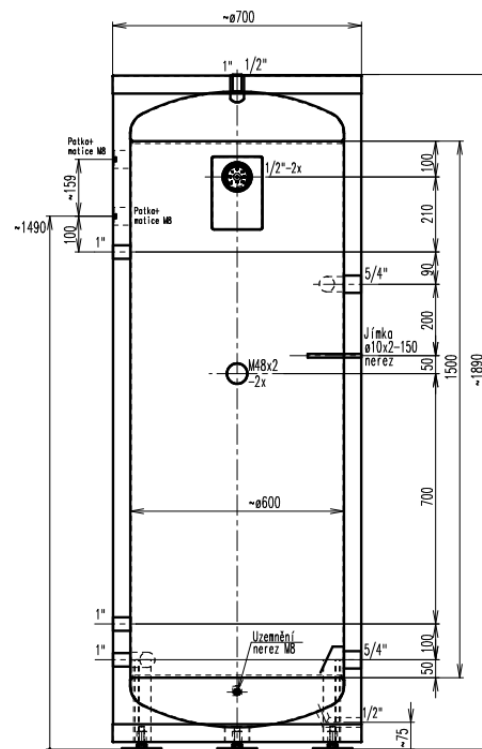
Tank outside surface coating: hardened PUR foam

Tank max. pressure: 0,6MPa (6bar)

Tank max. temperature: 110°C



ST-300AF



ST-500AF

3. Operation

Water in the storage tank is heated by several heat sources, such as different types of hot water boilers or renewable energy sources (e.g. heat pumps, solar collectors), or by electric heaters.

The storage tank is connected to a heat source using fittings. Individual connection points are assigned according to the connected circuits.

4. Installation and commissioning

Tank installation must comply with the appropriate regulations and standards according to ČSN 06 0310, ČSN 06 0320 and ČSN 06 0830 and must be done only by a qualified and competent person.

Defects caused by an improper installation, use and handling are not covered by warranty.

Once the tank is installed and connected to an existing heating system, it is recommended to clean the entire heat system by cleaning fluid for heating systems. In addition, it is recommended to apply a protective liquid with corrosion inhibitor.

4.1. Connection to the heat sources

Place the tank on the floor as close as possible to the heating source. Connect the heating circuits to the inputs and outputs according to the tank design. Install the drain valve at the lowest point of the tank. Install the bleed valve at the highest point of the tank. Insulate all the interconnecting piping.

4.2. Connection to the solar heating system

This tank is not primarily designed to be connected to the solar heating system, but if necessary, this can be done using a heat exchanger between the solar heating system and the storage tank. In such case, insulate all of the piping between the storage tank and the heat exchanger carefully.

4.3. Installation of the auxiliary electric Heater

This storage tank can be fitted with auxiliary electric heaters with power up to 6kW. Connection of the auxiliary heaters to the mains can be implemented directly (heaters with built-in thermostat) or through the controller of the entire heating system.

Caution! All electrical heaters must be protected by a safety thermostat.

The electric heater must be connected only by a qualified person with certification according to the regulation 50/1978 Sb.

4.4. Commissioning

This tank is not designed for the preparation of drinking water for the household.

The tank is filled up together with the heating system in compliance with applicable standards and regulations. To reduce corrosion, it is recommended to use appropriate products for the heating system. Quality of heating water depends on quality of water that is used to fill up the system during commissioning, quality of water that is used to refill the system, and frequency of refilling. This has a great impact on the life of heating systems. Poor quality of heating water may cause problems such as corrosion of the equipment and incrustation, especially on the heat transfer surfaces.

Quality of the supplied and heating water is specified by ČSN 07 7401/1992 Sb.

Fill the heating circuits with appropriate fluids and bleed the system. Make sure that all connections are tight and check the pressure in the system. Set the parameters of the heating controller according to the documentation and manufacturer's recommendations. Periodically check that all control and adjustment elements are working properly.

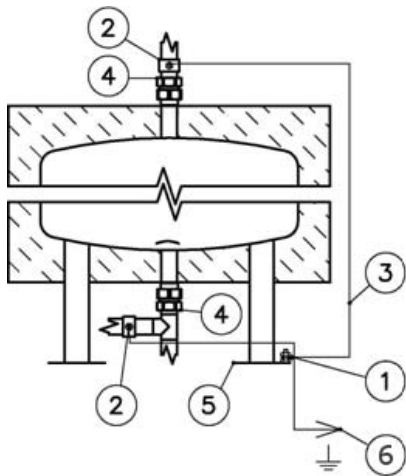
5. Maintenance

If the tank is equipped with the auxiliary electric heater, it is necessary to disconnect the auxiliary electric heater from the power supply before starting the tank maintenance. To clean the exterior of the tank, use a damp cloth and an appropriate cleaner. Never use abrasive cleaners, solvents, petroleum-based products, etc.

Check all connections for leaks.

6. Recommended protective connection

Standing design with earth screw on the foot.



1. earth screw
2. Bernard earth terminal
3. copper earth wire (6 mm²)
4. brass fittings
5. support
6. earth bus in switchboard

7. Disposal

Packaging materials must be disposed according to the applicable regulations. At the end of its service life, the product must not be treated as a household waste. It is necessary to ensure its recycling. Recycle the insulation as a plastic and the steel tank as a scrap metal.

8. Warranty

This product is warranted in accordance with the terms and conditions, which are stated in this manual and in the warranty card. Warranty card is an integral part of product delivery.

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