Operation and Installation Manual





Accumulation Tanks

NADO 500/300 v1 NADO 750/250 v1

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1. Description

Accumulation tanks serve accumulation of excessive heat from its source. The source may be a solid fuel boiler, heat pump, solar collectors, fireplace inserts, etc. Some types of tanks allow combination of connecting even multiple sources.

The NADO type tanks serve accumulation of heat in the heating system and allow heating or preheating of HSW (Hot Service Water) in an inner tank. Incorporation of an accumulation tank in the heating system with a solid fuel boiler allows an ideal run of a boiler at favourable temperature during the boiler operation. The main benefit lies in the period of optimum operation (i.e. with maximum efficiency) when the excessive unconsumed heat accumulates in the tank.

The tanks are made of steel, without any inner surface treatment, the outer surface of the tank is provided with a protective paint. The tanks are manufactured in 500 and 750 litre volumes. Individual versions are additionally equipped with an inner accumulator of 300 and 250 litre volumes, and funnels $G1\frac{1}{2}$ " mm, with a possibility to install an electric heating element of TJ 6/4" series. The tanks are equipped with a removable 100 m thick insulation – polyurethane foam (foam rubber) and a lock.

The NADO type enables direct heating of HSW (Hot Service Water) in an inner accumulator, or preheating of water for another water heater. Connection to a boiler usually allows direct HSW heating in an inner accumulator to the desired temperature whilst, on the contrary, connection to solar collectors or to a heat pump only preheats HSW and this tank can be connected to e.g. an electric heater to complete heating of the water to the desired temperature, or an electric reheat can be fitted in the accumulation tank which is enabled by a TJ 6/4" series electric heating unit. The NADO versions are equipped with a flange with 260 mm screw spacing which can be used to fit an in-built finned exchanger. In the standard version, the flange is blinded.

2. Designing the size and connection of ACCU tank to the heating system

An ideal size of the accumulation tank is designed by a design engineer, or a person sufficiently qualified to design heating systems.

Product assembly must be implemented by an authorised person (confirmed in the warranty certificate).

Important: When putting into operation, water has to be filled first into the inner tank for HSW and the operating pressure inside it has to be kept, only then heating water can be filled into the outer accumulation tank, otherwise the product may get damaged!

The manufacturer explicitly emphasises the necessity of being particular in testing the tightness of the heating circuit (radiators, piping joints, floor heating, etc.) with the connection of the accumulation tank. No pressure grow in the accumulation tank heating water compartment may occur above the maximum operating pressure of 0.3 MPa, if the heating system is pressurised to higher than the maximum operating pressure, the inner enamelled tank may get permanently damaged!

No stop fitting can be put between the security fitting of the heating circuit and the accumulation tank!!!

	NADO 500/300 v1	NADO 750/250 v1
Tank capacity (I)	200	491
Inner tank capacity (I)	300	255
Maximum tank pressure (MPa)	0,3	0,3
Maximum pressure of the inner accumulator (MPa)	0,6	0,6
Heat transfer at heating water temperature 50°C (kWh)	18,2	14,83
Amount of hot water 40°C (I)	417	340
Maximum temperature of water in the tank and accumulator (°C)	90	90
Maximum output of el. heating element of TJ 6/4" series (kW)	9	3x9

3. General Technical Parameters

Recommendation

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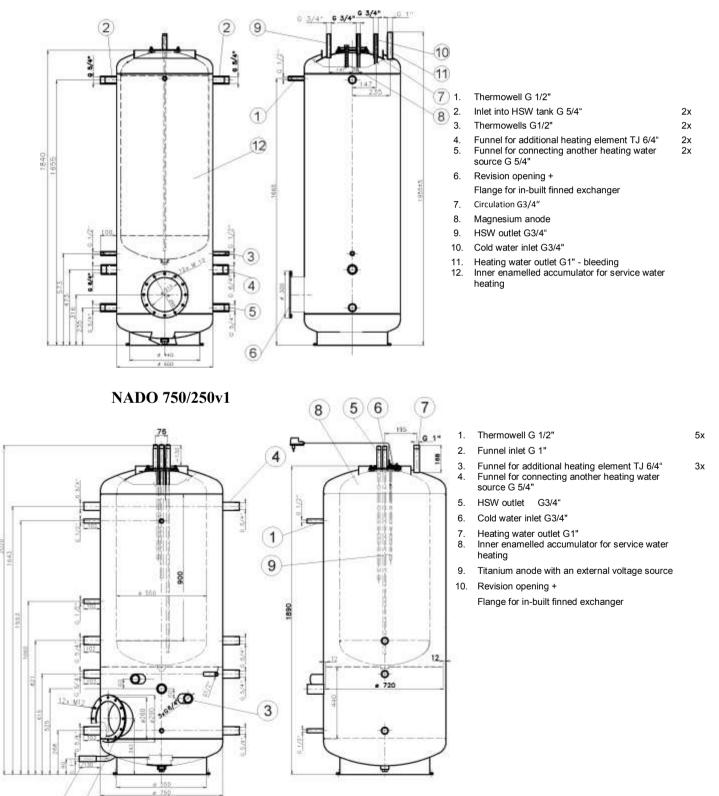
It is recommended to use the product in an indoor environment with air temperatures from $+5^{\circ}$ C to 45° C and a maximum relative humidity up to 80%.

Connection of the inner tank to HSW must comply with ČSN 06 0830, a safety valve has to be fitted on the cold water inlet.

Prior to commissioning, we recommend that you run the heating circuit and any impurities that are trapped in the filter clean, then the system is fully operational.

4. Technical description

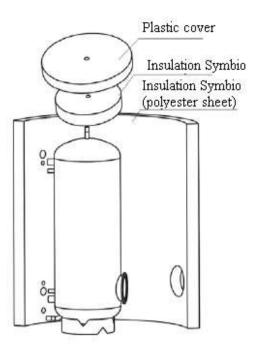
NADO 500/300v1



Thermal insulation

Polyester sheet of 100 mm thickness. It consists of an upper cover, flange cover and hole caps. Insulation is supplied in a separate packaging.

We recommend that the insulation was fitted at room temperature. At temperatures significantly below 20°C the insulation shrinks. This disables its easy fitting.



Disposal of packaging material and functionless product

A service fee for providing return and recovery of packaging material has been paid for the packaging in which the water heater was delivered.

The service fee was paid pursuant to Act No. 477/2001 Coll., as amended, at EKO-KOM a.s. The client number of the company is F06020274. Take the water boiler packages to a waste disposal place determined by the town. When the operation terminates, disassemble and transport the discarded and unserviceable heater to a waste recycling centre (collecting yard), or contact the manufacturer.

