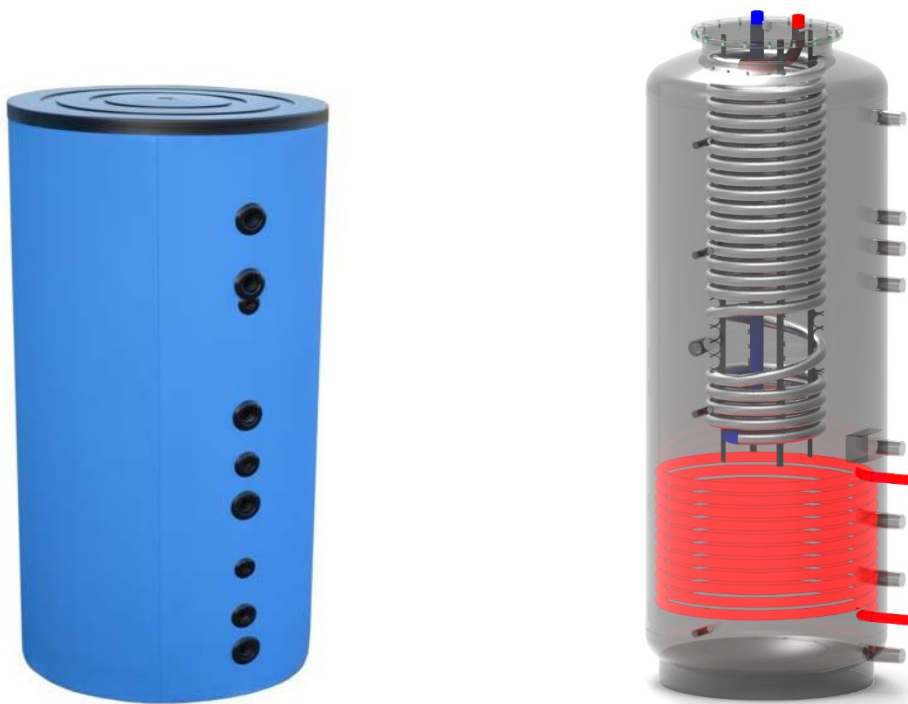


Accumulation tanks

Types: P, PR a MT



INSTRUCTIONS FOR OPERATION AND INSTALLATION OF ACCUMULATION TANKS

1 Accumulation tank P- Type

Purpose and use

P-type accumulation tanks (without exchanger) are produced in volumes of 500, 800, 1000, 1500 and 2000 liters. The buffers are designed for heat accumulation in the heating system. Accumulation tanks are supplied with or without insulation. Insulation of the tank is made up of 100 mm fire-proof flap with a protective layer and can be closed by a zipper.

Accumulation tanks are produced as vertical. They are ideal for use in all heating systems with solid fuel boilers, natural gas or heat pumps.

A large number of connecting in/outlets allow the use of tanks in various atypical heating systems, as well as allowing the tank to be connected in series according to individual needs.

Thermal insulation

Thermal insulation of the containers consists of a layer of non-combustible fluff with a PVC film, and a total thickness of 100 mm. Accumulation tanks are supplied either with or without insulation.

Technical description

Material: ST 37.2

Welding: automatic welding (WIG and MIG)

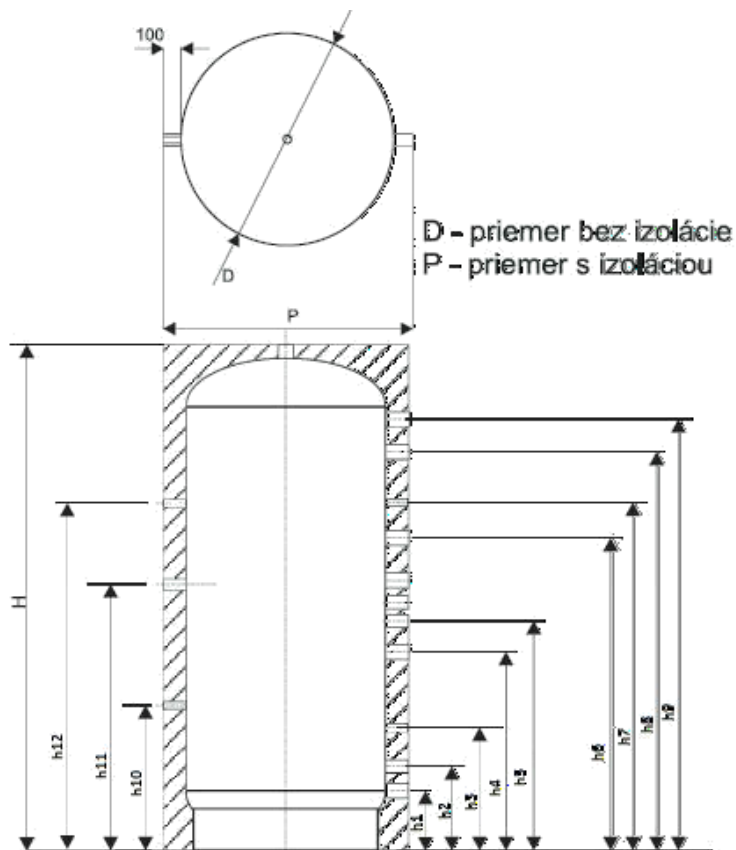
Maximum working pressure of the tank: 3 bar

Maximum test pressure: 15 bar

Maximum operating temperature: 95 ° C

Insulation: fluff of thickness 100 mm

Outer coat: PVC



Parameter			P500	P800	P1000	P1500	P2000
Volume		l	500	800	1000	1500	2000
Max. temperature allowed		°C	95	95	95	95	95
Max. pressure		bar	3	3	3	3	3
Insulation thickness		mm	100	100	100	100	100
Diameter with insulation	P	mm	850	990	990	1000	1350
Diameter without insulation	D	mm	650	790	790	800	1150
Height	H	mm	1600	1860	2040	2095	2200
Height of connection 1 1/2"	h1	mm	160	170	170	180	230
Connection height 1"	h2	mm	250	310	310	375	380
Connection height 1/2"	h3	mm	460	465	495	495	500
Connection height 1 1/2"	h4	mm	620	670	730	730	735
Connection height 1"	h5	mm	770	820	880	820	980
Connection height 1 1/2"	h6	mm	880	980	1060	1100	1170
Connection height 1/2"	h7	mm	990	1290	1450	1345	1450
Connection height 1 1/2"	h8	mm	1120	1390	1520	1550	1590
Connection height 1 1/2"	h9	mm	1370	1573	1742	1755	1820
Connection height 1/2"	h10	mm	410	570	580	850	920
Connection height 1 1/2"	h11	mm	790	920	1130	1150	1170
Connection height 1/2"	h12	mm	1120	1290	1500	1600	1690
Weight		kg	97	126	152	222	382

2 Accumulation tank PR type

Purpose and use

PR-type accumulation tanks includes one solar heat exchanger (single exchanger). They are available in 500, 800, 1000, 1500 litres capacity. The buffers are designed for heat accumulation in the heating system. Storage tanks are supplied with or without insulation. Tank insulation consists of a 100 mm non-flammable layer with a protective layer and can be closed with a zipper. Accumulation tanks are produced as vertical. They are ideal for use in all heating systems with solid fuel boilers, natural gas or heat pumps.

In the embodiments with built-in heat exchanger, they can supply heat to the solar collectors and prepare hot water all year round. A large number of connecting inlets/outlets allow the use of tanks in various atypical heating systems, as well as the ability to connect tanks according to individual needs.

Thermal insulation

Thermal insulation of the reservoirs layer of non-flammable flush with PVC surface film, and total thickness 100mm. Storage tanks are supplied either with or without insulation.

Technic description

Material: ST 37.2

Welding: automatic (WIG and MIG)

Max. operational pressure: 3 bar

Max. testing pressure: 15 bar

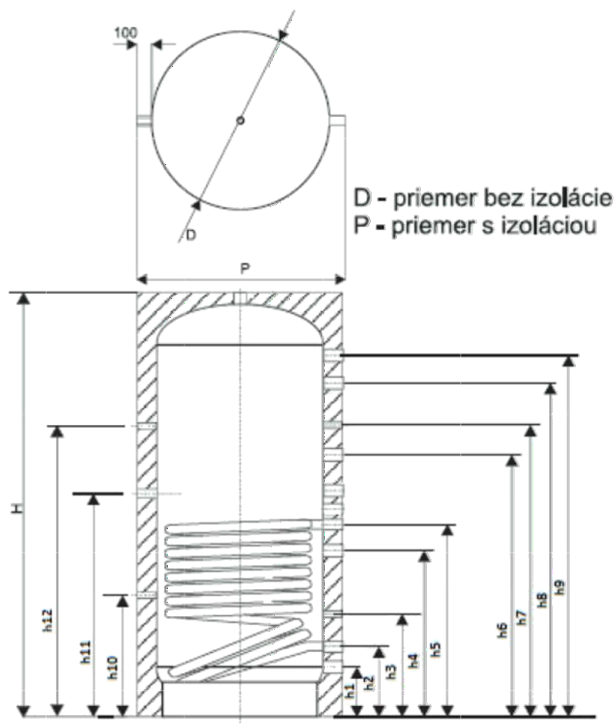
Max. work temperature: 95 °C

Insulation: flis of thickness 100 mm

Outer coat: PVC

Heat Exchanger: Steel pipe ST 37.2

Maximal testing pressure of heat exchanger: 25 bar



Parameter			PR500	PR800	P1000	PR1500
Volume		l	500	800	1000	1500
Solar exchanger surface		m ²	1.8	2.4	3.0	3.6
Max. temp. allowed tank/exchanger		°C	95/120	95/120	95/120	95/120
Max. pressure tank/exchanger		bar	3/8	3/8	3/8	3/8
Insulation thickness		mm	100	100	100	100
Diameter with insulation	P	mm	850	990	990	1200
Diameter without insulation	D	mm	650	790	790	1000
Height	H	mm	1600	1840	2030	2095
Connection height 1 1/2"	h1	mm	160	170	170	375
Connection height 1"	h2	mm	250	310	310	330
Connection height 1/2"	h3	mm	460	465	495	515
Connection height 1 1/2"	h4	mm	620	670	730	820
Connection height 1"	h5	mm	770	820	880	920
Connection height 1 1/2"	h6	mm	880	980	1060	1345
Connection height 1/2"	h7	mm	990	1290	1450	1480
Connection height 1 1/2"	h8	mm	1120	1390	1520	1550
Connection height 1 1/2"	h9	mm	1370	1573	1742	1755
Connection height 1/2"	h10	mm	410	570	580	610
Connection height 1 1/2"	h11	mm	790	920	1130	1150
Connection height 1/2"	h12	mm	1120	1290	1500	1800
Weight		kg	118	161	194	265

3 Accumulation tank MT type

Purpose and use

MT-type accumulation tanks includes one Hot domestic water exchanger made by INOX steel tube DN32 (fig.2) and one solar heat exchanger. It enables the most effective HW heating thanks to its large surface. The HW module is fully exchangeable (in case of damage caused by hard water). MT accumulation tanks are available in 500, 800, 1000, 1500 litres capacity. The buffers are designed for heat accumulation in the heating system. They are supplied with or without insulation. Tank isolation consists of a 100 mm non-flammable 100 mm layer with a protective layer and can be closed with a zipper. Accumulation tanks are produced as vertical. They are ideal for use in all heating systems with solid fuel boilers, natural gas or heat pumps.

In the embodiments with built-in heat exchanger, they can supply heat to the solar collectors and prepare hot water all year round. A large number of connecting inlets/outlets allow the use of tanks in various atypical heating systems, as well as the ability to connect tanks according to individual needs.

Technic description

Material: ST 37.2

Welding: automatic (WIG and MIG) Max. operational pressure: 3 bar

Max. testing pressure: 15 bar

Max. work temperature: 95 °C

Insulation: flis of thickness 100 mm

Outer coat: PVC

Solar Heat Exchanger: Steel pipe ST 37.2

Maximal testing pressure of solar heat exchanger: 25 bar

Hot Water heat exchanger: Inox steel DN32x25bm

Maximal testing pressure of solar heat exchanger: 25 bar

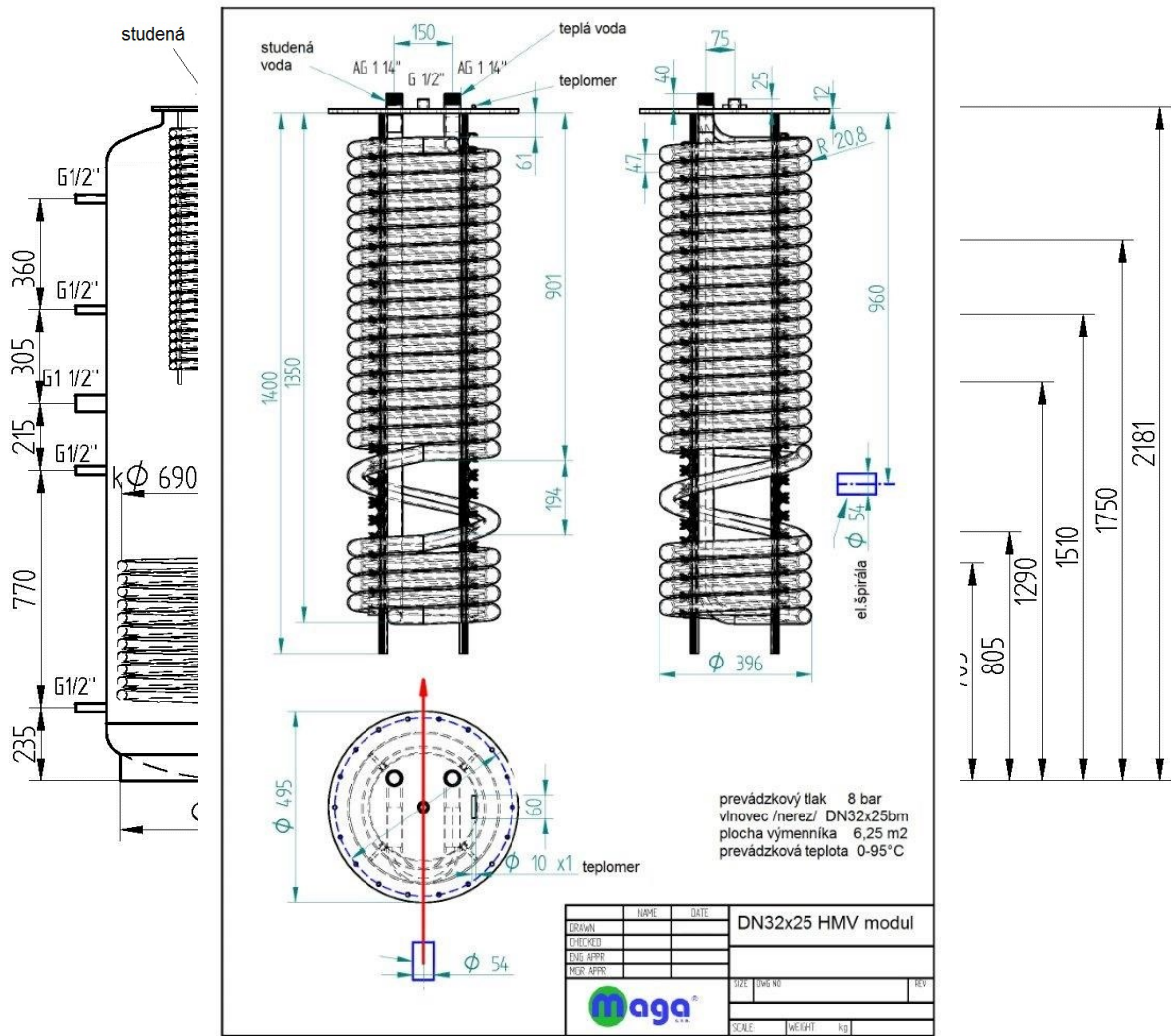
Maximal testing pressure of domestic hot water exchanger: 20 bar

Hot domestic water exchanger surface: 6.25 m²

Thermal insulation

Thermal insulation of the reservoirs layer of non-flammable flush with PVC surface film, and total thickness 100mm. Storage tanks are supplied either with or without insulation.

Figure 2 Hot domestic water heat exchanger.



Parameter		MT500	MT800	MT1000	MT1500
Volume	l	500	800	1000	1500
Solar exchanger surface	m ²	3.9	3.9	3.9	3.9
DHW exchanger surface	m ²	6.25	6.25	6.25	6.25
Max. temp. allowed tank/exchanger	°C	95/120	95/120	95/120	95/120
Max. pressure tank/exchanger	bar	3/8	3/8	3/8	3/8
Insulation thickness	mm	100	100	100	100
Diameter with insulation	P mm	850	990	990	1200
Diameter without insulation	D mm	650	790	790	1000
Height	H mm	1888	1934	2183	2239
Max. height in inclined position	mm	1900	1970	2210	2270
Weight	kg	127	176	196	281

Installation

Installation must comply with applicable regulations and can only be performed by qualified personnel and professionally competent person. Faults due to improper installation, use, and operation will not be subject to warranty. After installing the stack into an existing heating system and connection, we recommend that the entire heating system be cleaned with a cleaning agent for heating systems.

Connecting to a heating source

Place the accumulation tank on the floor as close as possible to the heating source until you have the reservoir installed. Connect the heating circuits to the inlets and outlets according to the temperature distribution in the tank. At the lowest point of the tank, install the drain valve. Place the vent valve at the highest point of the system. Insulate all connection wiring.

Connection to the solar system

This tank is not primarily intended to be connected to the solar system, but is possible, if necessary, by means of an exchanger between the solar system and the tank. In this case, carefully secure all connections between the tank and this exchanger

Connection to the Hot domestic Water system

The domestic water is to be heated thanks to flow inside the Inox tube - HMW module. Inlet of the cold water is situated on the top of the tank from on the left side (fig.2), the warm water for domestic use outlet is parallel situated on the right side (fig.2). The thermometer – sensor is out nearby the outlet. Carefully secure all connections between the tank and this exchanger.

Commissioning

This tank is not intended for domestic drinking water.

The tank is filled with the heating system while respecting the applicable standards and regulations. The quality of water in the heating system depends on the quality of water, which is the system during commissioning soaked, the quality of the water filling and topping its abundance, and has great influence on the life of the heating system. Insufficient heating water quality can cause problems such as equipment corrosion and precipitation, especially on variable temperature surfaces.

The quality of the replenished and heating water is prescribed by the standard STN 07 7401/1992 Coll.

Tank maintenance

To clean the outside of the storage tank, use a damp cloth and a suitable cleanser. Never use abrasive agents, solvents, petroleum based products, etc.

Ensure that there is no water around the joints.

Waste

Packaging material must be disposed of in accordance with applicable regulations. After the end of its life, the product must not be treated as household waste. It is necessary to ensure its recycling. Insulation recycle as plastic and steel container as iron scrap.

Examples of the accumulation tanks instalation

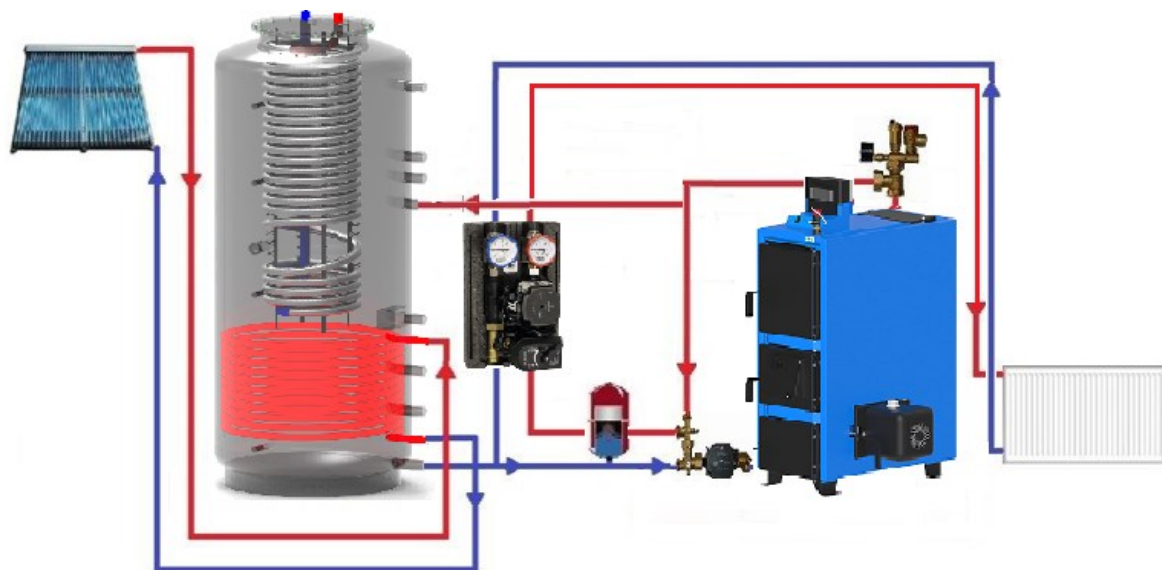


Figure 1 Recommended installation of MT type and boiler (MAGA DP) and solar panel

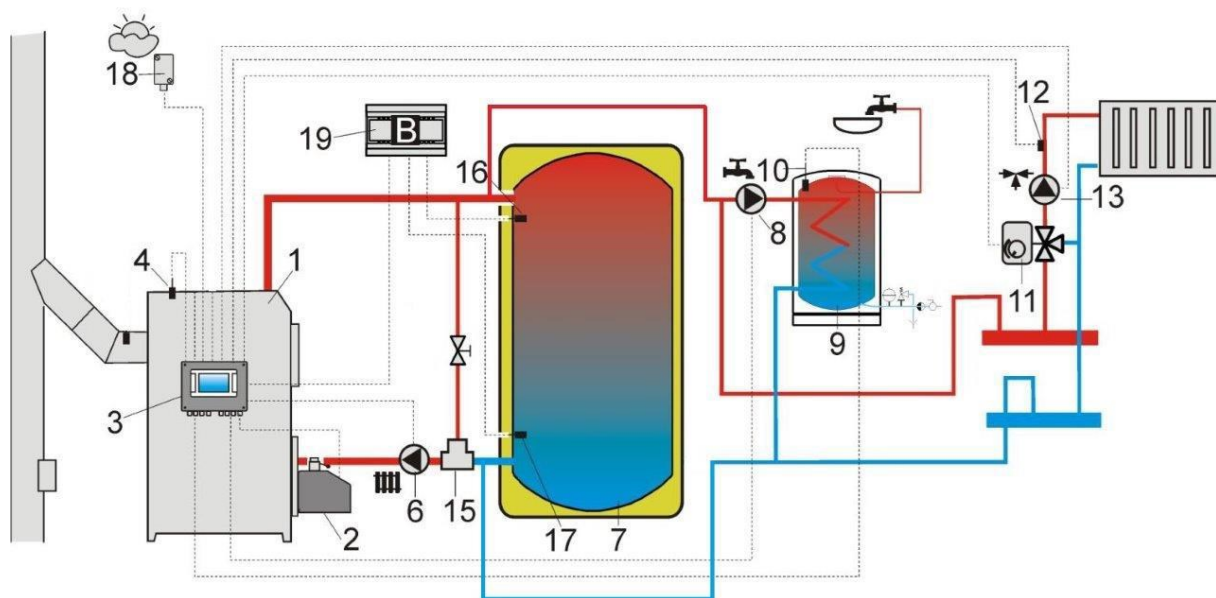


Figure 2 Recommended scheme of pellet boiler connection (Maga P20/P40/P60) with accumulation tank type P and hot domestic water boiler.

Warranty and warranty terms

Warranty certificate for accumulation tanks

Type of accumulation tank Serial number:

The installation was performed by the company (name, address, telephone):

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.....
.....

Putting the plant into operation has been completed (do not fill out if it matches the company that made the installation):

.....
.....
.....

For the above product, the vendor provides a warranty period of 24 months from the date of sale under §620 and § 621 of the Civil Code. During the aforementioned period, under the conditions below, the buyer has the right to free the factory or hidden error free of charge. Any claim of the above product applies to the vendor organization, with a duly warranted warranty card and proof of purchase of the product.

Warranty conditions

1. The installation and commissioning of the product has been carried out by a competent person. When a claim is made, the customer submits the documents necessary to claim the claim (duly completed and confirmed warranty, proof of purchase or other relevant documents).
2. The installation and commissioning of the product has been carried out in accordance with the technical conditions in the installation and use instructions.
3. During the operation of the product, the prescribed technical conditions are specified in the installation instructions and in the generally binding regulations or technical standards (maximum pressure, temperature, water quality, etc.)

The warranty does not apply in particular to cases where:

- Installation of the product has been carried out in contravention of the installation and use instructions, generally binding regulations or technical standards;
- a malfunction occurred due to improper handling or maintenance;
- the product was used for a purpose other than that specified;
- a malfunction occurred due to unprofessional interference with the product or its improper treatment;
- a malfunction occurred due to inappropriate transport or other mechanical damage;
- the failure was due to faulty, missing or incorrectly set system elements, which are indispensable for the correct operation of the product;
- the quality of the replenished and heated water does not comply with STN 077401;
- the quality of the hot water does not correspond to the conditions outlined in the installation and use instructions;
- there has been a disaster caused by natural disaster or other unforeseen effects (flood, storm, fire);
- the tampering or falsification of the warranty certificate or other documents relating to the sale and warranty of this product has been detected.

The following qualified personnel declare that the product specified in this warranty card has been properly run under the conditions specified by MAGA s.r.o.

The selling organization:

The product was put into operation:

Organization Name:

Name of Employee:.....

.....

.....

Stamp and date of sale

Stamp and date of commissioning

Purchaser's statement

Hereby, I declare by my signature that the basic functions have been explained and I understand the purpose and use of the product and how it is maintained. I have received a warranty card with instructions for installation and use.

Technical or design changes are reserved. Company MAGA, s.r.o. is not responsible for printing errors.



Purchaser evidence document

(to be sent to service department)

Name:

Surname:

Company:

Address:(street, No.)

.....(city)

.....(country, ZIP code)

Tel./ mobile:

Product:

Serial No.:

Date of sale:

The customer declares by his signature that the product has been taken faultless, damaged and fully functional and he/she has been familiar with the operation and maintenance of the product.

It is the customer's responsibility to unpack and check the product

The customer's letter must be sent to the address of the company within 7 days of the product being commissioned.

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Company (sales)

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Purchaser