

BEDIENUNGS- UND MONTAGEANLEITUNG

Speicher im Speicher System SISS - 350, 500, 750, 900, 1500
Bitte um Weitergabe an den Benutzer.

OPERATING AND MOUNTING INSTRUCTIONS

Storage in Storage System SISS - 350, 500, 750, 900, 1500
Please pass on to the user!

NOTICE D'UTILISATION ET DE MONTAGE

Accumulateur dans le système d'accumulation SISS - 350, 500, 750, 900, 1500
A remettre à l'utilisateur !

ISTRUZIONI PER L'USO E IL MONTAGGIO

Sistema di bollitore nel bollitore SISS - 350, 500, 750, 900, 1500
Da consegnare all'utente!

INSTRUCCIONES DE USO Y DE MONTAJE

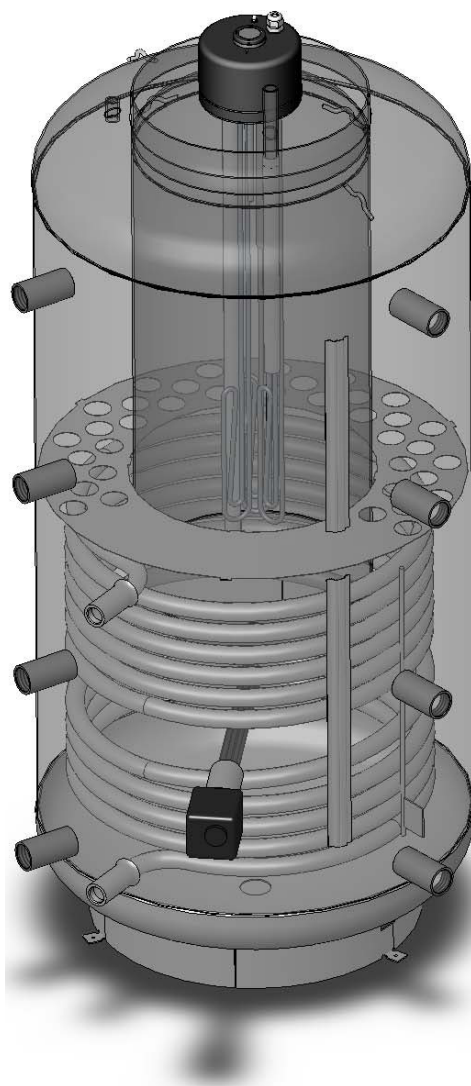
Sistema de termoacumulador en termoacumulador SISS - 350, 500, 750, 900, 1500
¡Por favor, entréguese al usuario!

NAVODILA ZA VGRADNJO IN UPORABO

Sistemiški zalogovnik toplote SISS - 350, 500, 750, 900, 1500
Posredovati uporabniku!

INSTRUKCJA OBSŁUGI I MONTAŻU

Zbiornik ciepłej wody użytkowej w zbiorniku buforowym SISS - 350, 500, 750, 900, 1500
Prosimy o przekazanie niniejszej instrukcji użytkownikowi.



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AE
Austria Email

DEAR CUSTOMER!

You have decided for water heating using the storage in storage system SISS produced by our company.

We thank you for your trust!

You will receive a highly effective device that was constructed in accordance with the state of the art and the applicable regulations. The highly developed enamelling based on continuous research as well as an ongoing quality control during the production provide our hot water tanks with technical characteristics that you will always value. The installation and first commissioning must be performed exclusively by an expert and in accordance with these instructions.

You will find all important information for a correct assembly and operation in this small brochure. Nevertheless, let your concessionary explain to you how the device functions and demonstrate its operation. Of course, our customer service and sales department are readily available to support you in case you need any advice.

Enjoy the use of your hot water tank.

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SAFETY INSTRUCTIONS

General

- This tank can be used by children eight years old and older as well as by persons with reduced physical, sensory or mental capabilities or who lack experience and knowledge if they are supervised or if they have been trained with regard to the safe use of the tank and understand the resulting risks. Children may not play with the tank or its packaging. Cleaning and user maintenance may not be performed by children without supervision.
- The tank may only be installed and operated as described in this manual or the associated technical information. Any other use is not proper and is therefore impermissible.
- A defective tank may not continue to be operated.
- There is a risk of scalding from hot water or hot components (e.g. fittings, hot water outlet pipe, etc.).
- When using an electric immersion heater, proper corrosion protection is to be ensured.
- Only use original accessories or original spare parts from the manufacturer.

Installation and commissioning

- Installation and commissioning may only be performed by qualified specialised personnel who therefore assume the responsibility for the proper assembly according to the applicable laws, standards and guidelines.
- The tank is mounted to a sufficient load-bearing wall using a wall mount (note the total weight of the filled tank) or is placed on a flat horizontal surface after mounting the included adjustable feet. Ensure that the subsurface at the installation location has a sufficient load-bearing capacity.
- The tank may only be set up in dry, freeze-protected spaces. The tank is to be completely emptied if there is a risk of freezing.
- The rated pressure specified on the nameplate may not be exceeded.
- When installing the tank, a possible water leak is to be considered and a corresponding collection container (including drain) is to be installed in a drainage object.
- Following the commissioning, the tank and all connections are to be checked for leak tightness.

Electrical Connection

- Only qualified specialised personnel may connect the tank to fixed lines while observing the relevant professional standards and laws.
- A ground fault circuit interrupter with a trip current of $I_{\Delta n} \leq 30\text{mA}$ must be installed upstream from the electrical circuit.
- Before working on the tank, this is to be de-energised, checked for the absence of voltage and secured against being switched on again.
- If a connection cable is damaged, immediately disconnect the power supply (circuit breaker) and call a professional!
- Connection cables may not be extended or cut through in any way.
- ATTENTION: The factory wiring must not be altered!

Servicing

- Maintenance, cleaning and any necessary repair or service work may only be performed by specialised personnel who are qualified for this purpose.
- Never try to fix errors and faults yourself.
- Necessary service and maintenance intervals are to be observed in accordance with these operating and assembly instructions.

FUNCTION

The service water stored in the internal boiler enamelled according to DIN 4753 is heated indirectly by the surrounding heating water. The buffer content (heating water) can be heated indirectly by means of a large-surface pipe register that is welded in permanently, and/or directly through the coupling sleeves by means of a boiler, heat pump, solar system, screwed-in heating for the buffer area and a built-in heating for the service water area. The array and number of sleeves, as well as the pipe register that is available on various models allow a multivalent operation.

HOT WATER DEMAND

The hot water demand in a household depends on the number of persons, the sanitary installations of the apartment or the house, as well as the individual habits of the user.

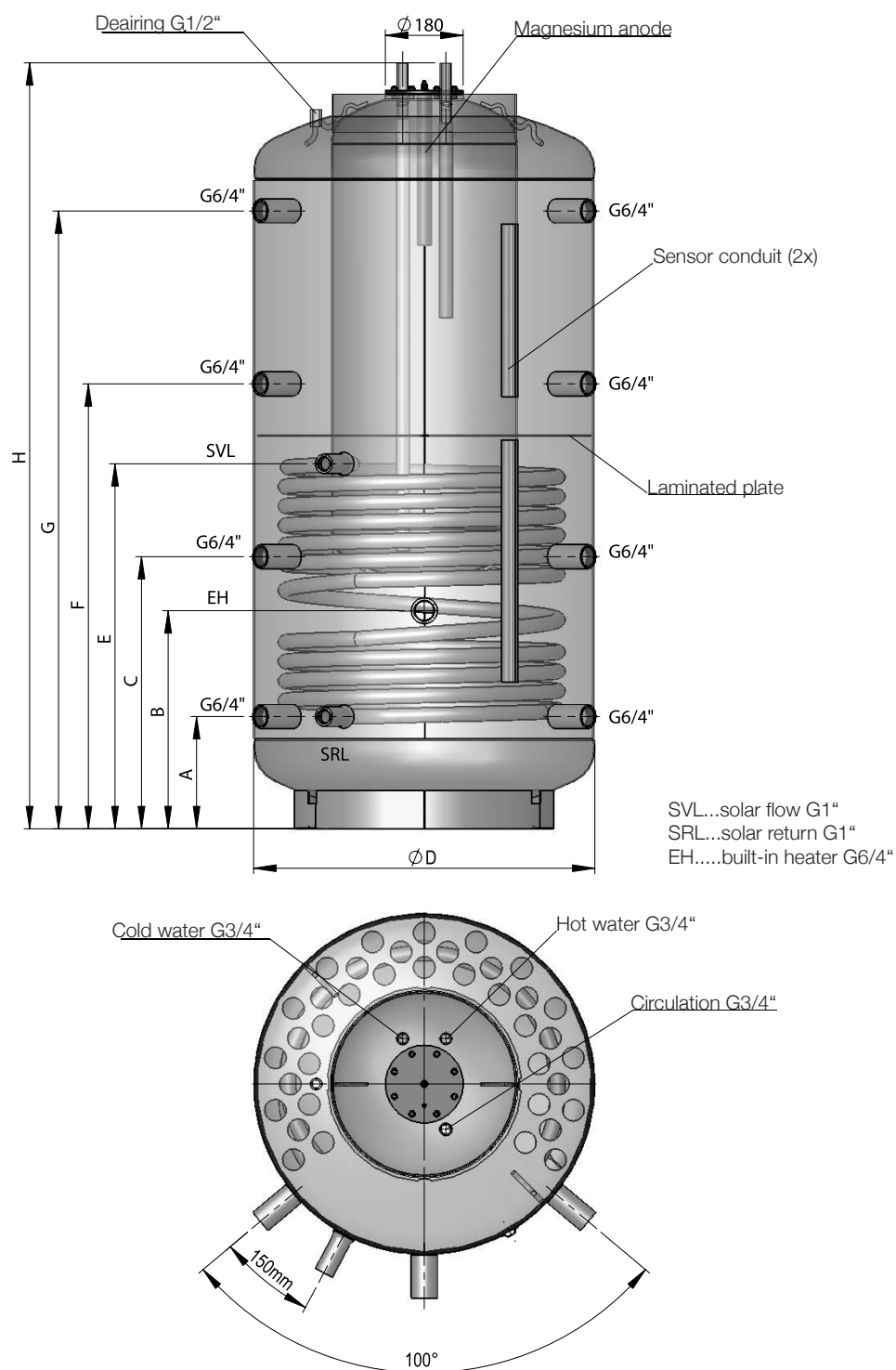
The following table provides a few standard values regarding consumption figures.

	Hot water demand in litres		Required storage water quantity in litres	
	at 37 °C	at 55 °C	with 80 °C	with 60 °C
Full bath	150 - 180		55 - 66	78 - 94
Shower	30 - 50		11 - 18	16 - 26
Washing hands	3 - 6		1 - 2	1,6 - 3,1
Hair wash (short hair)	6 - 12		3 - 4,4	4,2 - 6,3
Hair wash (long hair)	10 - 18		3,7 - 6,6	5,2 - 9,4
Use of bidet	12 - 15		4,4 - 5,5	6,3 - 7,8
Washing dishes				
for 2 persons per day		16	10	14
for 3 persons per day		20	12,5	18
for 4 persons per day		24	15,2	21,5
House cleaning per bucket of cleaning water		10	6,3	9

The temperature of the cold water required for mixing to the specified hot water temperature was estimated at approx. 12 °C.

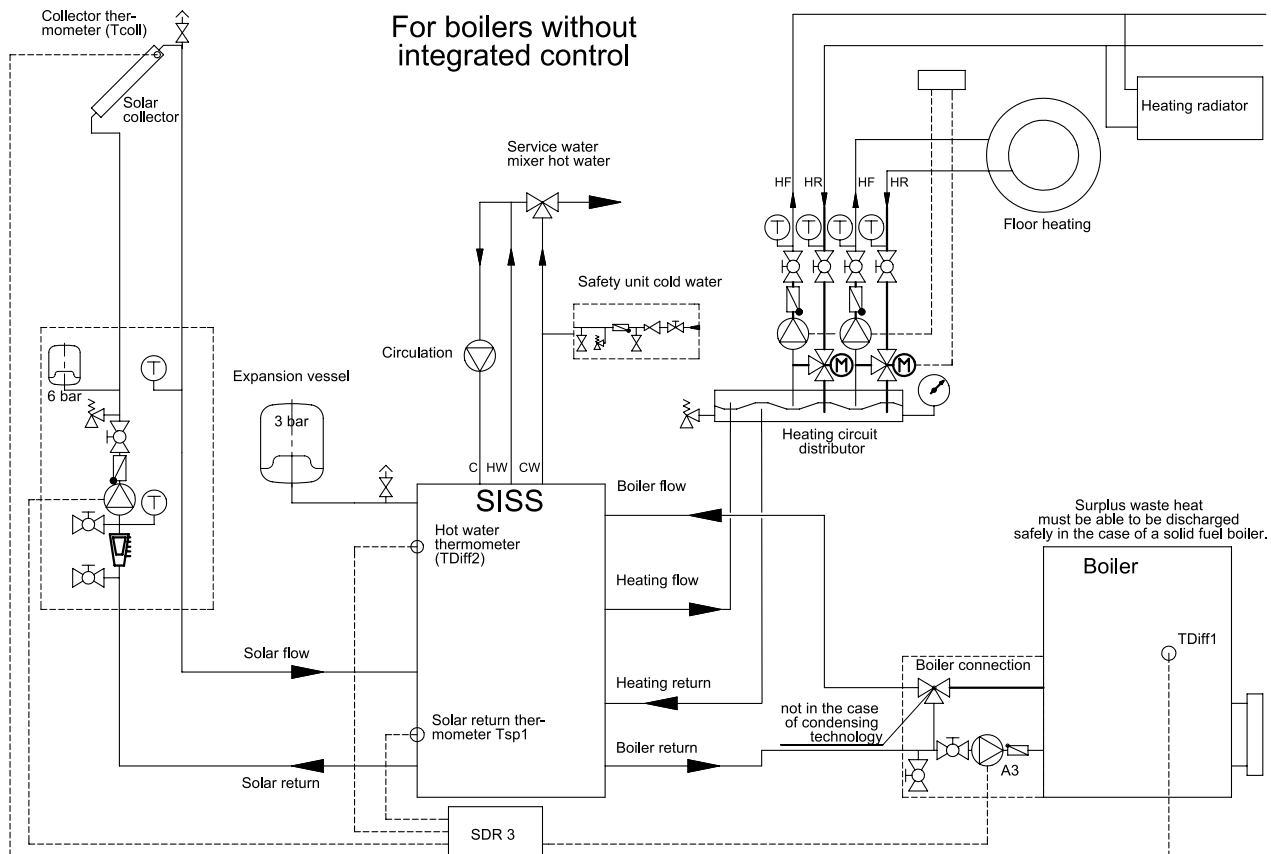
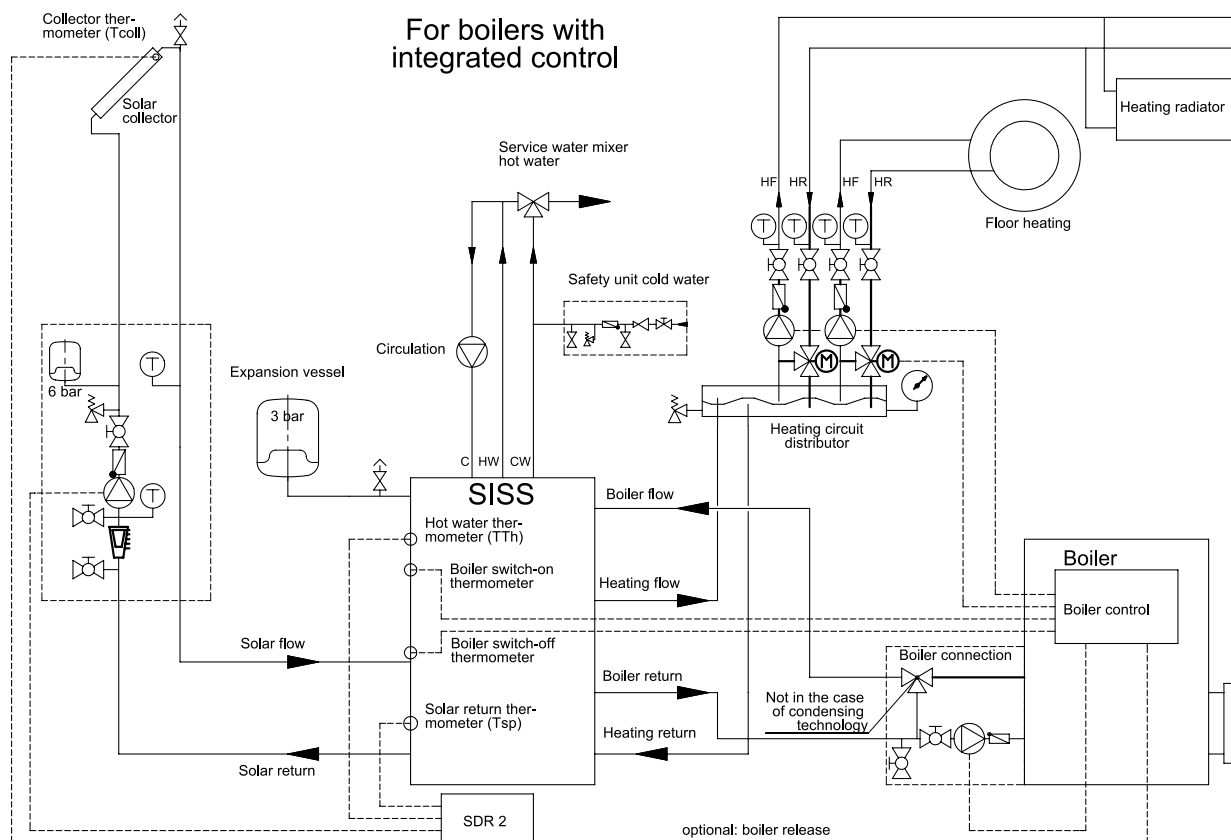
Due to the hysteresis of the temperature control (± 7 K) and possible radiation losses (cooling-down of the pipelines), the temperature specifications are subject to an accuracy of ± 10 K.

DIMENSIONED SKETCH



Type	øD	øD with insulation	H	H with insulation	A	B	C	E	F	G	Tilting height	Register heating surface m ²	Register capacity in litres	Fitting length of EH coupling	max. capacity of EH in kW
SISS 350/100	650	850	1378	1405	220	420	-	715	760	1090	1430	1,55	10,4	650	6,0
SISS 500/150	650	850	1708	1735	220	420	620	805	1010	1390	1770	1,90	12,3	650	6,0
SISS 750/150	790	990	1769	1800	260	505	630	845	1030	1430	1840	2,40	15,6	780	9,0
SISS 900/200	790	990	2119	2150	310	555	745	1030	1250	1710	2180	3,00	19,3	780	9,0
SISS 1500/250	1000	1200	2223	2255	380	-	825	1180	1350	1760	2290	3,6	23,5	-	-

MULTIFUNCTIONAL SYSTEM (NON-BINDING CONNECTING SHEMATICS)



FILLING AND EMPTYING

Filling

It is bindingly necessary to fill resp. apply pressure to the inner service water tank first and then the buffer tank (hot water area).

Emptying

When emptying the system, the buffer tank (hot water area) must be depressurised in the first step and then the service water tank in the second step.

The enamelled service water tank may be destroyed in the case of a non-compliance with the filling or emptying procedure!

SERVICE WATER CONNECTION (PRESSURE-PROOF)

Any warranty for our water heaters shall be rejected in case of use of unsuitable or inoperative storage connector fittings as well as an exceedance of the specified operating pressure. To avoid damage, it is necessary to construct the connection of the storage tank with a detachable connection (union).

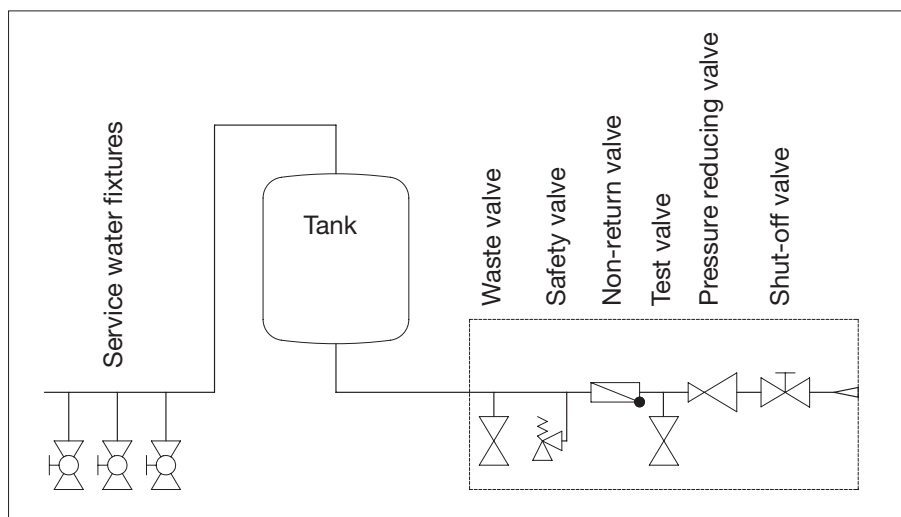
Leaks from the storage tank as a result of an improper connection and damage and consequential damage caused by this are excluded from the guarantee and product liability.

All water heaters provided with a rating plate bearing the designation 'nominal pressure 10 bar' (atmospheric excess pressure kp/cm^2) are pressure-proof storage tanks and can be connected on a pressure-proof basis using a line pressure up to 5.5 bar.

A pressure reducing valve must be installed in the cold water supply line should the line pressure be higher!

The water plumbing must be performed by means of a certified diaphragm safety valve or a diaphragm safety valve combination (connector fitting for pressure-proof storage tanks) only!

A safety valve combination consists of a shutoff, test, swing check, drain and safety valve with an expansion water drip and is installed between the cold water supply line and the cold water supply of the storage tank in the order as drawn.



Principally, the following must be observed:

In order to ensure a flawless function of the connector fitting, the same must be mounted in frost-protected rooms only. The drain of the safety valve must be open and observable and the outlet pipe from the drop collector (expansion water funnel) must lead into the sewer, so that neither frost nor clogging by dirt and similar can cause any malfunction.

No shutoff valve or other throttling must be installed between the safety valve and the cold water supply of the storage tank.

The safety valve must be set to a response pressure that is lower than the nominal pressure (10 bar) of the storage tank. The cold water supply line must be rinsed out before the storage tank is connected finally. The discharge

openings of the safety valves (domestic water and heating circuits) must open out into an appropriate drainage object in order to avoid any damage caused by the escape of operating fluid.

Basically, all the regulations of ÖNORM B 2531, DIN 1988 (EN 806), DIN 1717, VDI 2035 or the corresponding national regulations and laws must also be observed.

After completed plumbing and bubble-free filling of the storage tank, the connector fitting must be checked for functionality.

- a) In order to avoid a blockage of the airing facility of the safety valve due to furring, the airing facility of the safety valve must be operated from time to time during operation of the system. It must be observed whether the valve closes again after releasing the airing facility and whether the water in place runs off completely through the funnel or the blow-off pipe.
- b) In the case of safety valves that are installed ahead of water heaters, it must be observed whether the safety valve responds during heating of the water heater. This is identifiable by the penetration of water out of the blow-off pipe.

Implementation: operator, plumber

Time interval: yearly

Maintenance and repairs:

If no penetration of water occurs during heating of the water heater or in the case of a constant leak of the safety valve, an attempt must be made to loosen the valve by repeated operation of the airing facility or rinse out any possible foreign object (e.g. fur particle) on the seal component.

If this cannot be achieved, then the appropriate repair by a plumber must be initiated. The complete safety valve must be replaced in the case of any damages to the valve seat or sealing ring.

Implementation: plumber

Time interval: yearly

To test the non-return valve, the shutoff valve is closed and no water must run out of the opened test valve.

The storage tank is operated by the hot water valve of the service fitting (mixer tap). Therefore, the storage tank is constantly under line pressure. In order to protect the internal boiler from overpressure during heating, the appearing expansion water is discharged through the safety valve. The non-return valve prevents the hot water from flowing back into the cold water supply network in the case of a loss of line pressure, and thus protects the boiler from heating up without water. By means of the shutoff valve, the storage tank can be separated in relation to water and thus also from the cold water supply network, and emptied through the drain valve, if required.

This tank can be used by children eight years old and older as well as by persons with reduced physical, sensory or mental capabilities or who lack experience and knowledge if they are supervised or if they have been trained with regard to the safe use of the tank and understand the resulting risks. Children may not play with the tank or its packaging. Cleaning and user maintenance may not be performed by children without supervision.

FIRST COMMISSIONING

The storage tank must be filled with water before being put into operation for the first time!

The expansion water created in the internal boiler during the heating process must drip from the safety valve in the case of a pressure-proof connection, and from the overflow mixing tap in the case of an unpressurised connection.

Caution: the hot water drain pipe as well as parts of the safety fitting may become hot thereby!

DECOMMISSIONING, EMPTYING

If a storage tank is taken out of operation or not used for a longer period, then it must be disconnected all-pole (in the case of electric heating) from the electric power grid. Turn off the lead switch or, insofar as an auxiliary electric heating is installed, the automatic cutout.

In rooms with a risk of frost, the water heater must be emptied before the start of the cold season, insofar as the device remains out of operation for several days.

Caution: hot water may exit during emptying!

In the case of a risk of frost, it must be observed also that not only the water in the water heater and in the hot water lines can freeze, but also in all cold water supply lines to the service fittings and to the device itself. Therefore, it is advisable to empty all fittings and lines holding water (also heating circuit = register) back to the frost-safe part of the domestic water system (domestic water supply).

If the storage tank is put back into operation, then it must bindingly be observed that it is filled with water and water exits bubble-free at the fittings.

CHECK, MAINTENANCE, CARE

- a) During heating, the expansion water must drip visibly from the drain of the safety valve (the expansion water drips from the valve of the mixing tap in the case of an unpressurised connection). The expansion water quantity is approx. 3.5 % of the storage tanks content when fully heated (approx. 85° C).

The function of the safety valve must be checked monthly. When the safety valve test knob is lifted or turned to the position >Test<, the water must flow freely from the safety valve unit into the drain funnel.

Caution: thereby, the cold water supply and parts of the storage tank connector fittings may become hot. If the tank is not heated up or hot water is withdrawn, then no water must drip from the safety valve. If this is the case, then either the water line pressure is too high (install pressure reducing valve over 5.5 bar), or the safety valve is defect. Please call a plumber immediately.

- b) The boiler scale as well as the furring that forms in the internal boiler of the storage tank in the case of heavily calciferous water must be removed by an expert after one to two years of operation. The cleaning is performed through the flange opening. De-install heating flange, clean storage tank; a new seal must be used when the flange is mounted. Thereby, the screws must be tightened crosswise using a momentum of 23 to 25 Nm. The internal tank of the water heater with special enamelling must not get in contact with boiler scale solvents. Do not use an antiliming pump! Finally, the device must be rinsed thoroughly and the heating process be observed in the same way as during the first commissioning.

- c) In order to make a legitimate claim under the guarantee provided by the manufacturer, the in-built protective anode requires a documented inspection by a specialist at a maximum interval of two years of operation. For service work, it is also appropriate to open the cleaning and service flange, in order to check the tank for the possible ingress of foreign bodies and impurities and to remove them if necessary.

The impressed current anode has a virtually unlimited service life. Its function must be regularly monitored via the control lights (green, yellow, red).

Warning: If the red LED is lit, no corrosion protection is active! Corrosion protection is only guaranteed if the green LED lights up continuously.

Should the red or yellow LED light up or flash, please inform Customer Services immediately.

A conductivity value of the medium of $\geq 150 \mu\text{S}/\text{cm}$ is necessary for proper functioning of the external current anode.

- d) Do not use any abrasive cleaning agents and paint thinners (such as nitro, trichlor etc.) to clean the device. The best cleaning method is to use a damp cloth added with a few drops of a liquid household cleaner. In hospitals and other public buildings, the prevailing regulations for cleaning and disinfection must be observed.
- e) The tank can be used exclusively in accordance with the conditions specified on the rating plate. Aside from the legally approved national regulations and standards, the connecting requirements of the local power company and waterworks, as well as the Assembly and Operating Instructions must be complied with.
- f) The room in which the device is operated must be free of frost. The assembly must be performed at a location that is reasonably to be expected, i.e. it must be possible to access the unit without any difficulty for the purpose of necessary maintenance, repairs and possible replacement. In the case of heavily calciferous water, we recommend the upstream integration of a customary antiliming device, as the natural formation of boiler scale substantiates no claim for any warranty issued on the side of the manufacturer. An appropriate quality of drinking water is required for operation of the hot water tank, as set out in the national regulations and laws [e.g. ordinance by the Federal Minister on the quality of water intended for human consumption, TWV; Federal Law Gazette II no. 304/2001].

MALFUNCTIONS

If the tank water is not heated up, please check whether the heat generator (oil, gas or solid fuel boiler) is fully operative.

Please get in touch with either a licensed plumber or our customer service in the case that you are not able to rectify the fault yourself. In many cases, experts only need to do a few little things and the storage tank or the system is working again. In case of contact, please quote your model designation and manufacturing number, which you can find on the rating plate of your storage tank.

Should a device, at the point of delivery, clearly display a malfunction, damage or other defect, this must not be fitted, installed or used in the system. Subsequent complaints regarding devices with an obvious defect which have been connected and installed are expressly excluded under the warranty and guarantee.

WARRANTY, GUARANTEE AND PRODUCT LIABILITY

Warranty is made according to the legal provisions of the Republic of Austria and the EU.

1. The prerequisite for honoring of warranty terms on the part of the manufacturer (hereinafter referred to as Manufacturer) is presentation of a paid invoice for the purchase of the appliance in question, whereby the identity of the appliance including model and fabrication number must be indicated on the invoice and presented by the claim applicant. The General Terms and Conditions, Terms and Conditions of Sale and Delivery of the manufacturer shall apply exclusively.
2. The assembly, installation, wiring and startup of the appliance in question must, to the extent that this is prescribed legally or in the installation and operation guide, have been performed by an authorized electrical technician or installer who has followed all the required regulations. The hot water tank (excluding outer jacket or plastic cover) must be protected from exposure to direct sunlight to prevent discoloration of the polyurethane foam and possible cracking of plastic parts.
3. The area in which the appliance is operated must be kept from freezing. The unit must be installed in a location where it can be easily accessed for maintenance, repair and possible replacement. The costs for any necessary changes to the structural conditions (e.g. doors and passages too narrow) are not governed by the guarantee and warranty declaration and therefore shall be rejected on the side of manufacturer. When erecting, installing and operating the water heater in unusual locations (e.g. attics, interior rooms with water-sensitive floors, closets, etc.), provision must be made for possible water leakage and means provided for catching the water with a corresponding drain to avoid secondary damage in the context of product liability.
4. Warranty claims will not be honored for:
inappropriate transport, normal wear and tear, intentional or negligent damage, use of force of any kind or description, mechanical damage or damage caused by frost or also by exceeding the operating pressure stated on the rating plate, even if only once, use of connection fittings that do not comply with the standard, use of defective tank connection fittings and unsuitable and defective service fittings. Breaking of glass and plastic components, possible colour differences, damage due to improper use, in particular non-observance of the mounting and operating instructions (Operating and Mounting Instructions), damage by external influence, connecting to incorrect voltage, corrosion damage as a consequence of aggressive waters (water not suitable for drinking) in accordance with the national regulations (e.g. Austrian ordinance on drinking water, TWV – Fed. Law Gazette II No. 304/2001), deviations between the actual drinking water temperature at the tank fitting and the specified hot water temperature of up to 10K (hysteresis of the controller and possible cooling due to pipelines), Continued use, despite the occurrence of a defect, unauthorised modifications to the device, installation of additional components that were not tested together with the device, improperly carried out repairs, Insufficient water conductivity (min. 150 µs/cm) operational wear of the magnesium anode (wearing part), natural formation of boiler scale, lack of water, fire, flood, lightning, overvoltage, power failure or other types of force majeure. Use of non-original and company-external components such as e.g. heating elements, reactive anode, thermostat, thermometer, ribbed tube heat exchanger, etc., Parts installed in an uninsulated condition with respect to the storage tank, ingress of foreign particles or electrochemical influences (e.g. mixed installations), failure to observe the design documents, unpunctual and undocumented renewal of the installed protective anode, no or improper cleaning and operation, as well as any deviations from the standard that reduce the value or functionality of the device only slightly. Fundamental compliance with all regulations in ÖNORM B 2531, DIN 1988 (EN 806), DIN 1717, VDI 2035 or the corresponding national regulations and laws must be ensured.
5. A justified claim must be reported to the closest customer service location of the manufacturer. The latter reserves the right to replace or repair a defective part or to decide whether a defective appliance shall be replaced with a working one of equal value. The manufacturer furthermore expressly reserves the right to require that the purchaser return the appliance in question. The time of a repair or a replacement is determined by the production.
6. Repairs made under warranty are to be performed only by persons authorized by the manufacturer. Replaced parts become the property of the manufacturer. If any repairs to the water heater become necessary as part of necessary service work, these are charged at the cost of repair and prorated material cost.
7. Any work performed without our express order, even this is done by an authorized installer, will void the warranty. Assumption of the costs for repairs performed by third parties presumes that the manufacturer was requested to eliminate the defect and did not or did not in timely fashion meet his obligation for replacement or repair.
8. The warranty period will not be renewed or extended as a result of a guarantee and warranty claim, service or maintenance work.
9. Transport damage will only be inspected and if appropriate recognized if it has been reported in writing to the manufacturer no later than the weekday following delivery.

10. Claims exceeding the terms of the warranty, in particular those for damage and consequential damages, are precluded insofar as these are legally permissible. Pro rata work times for repairs as well as the costs for restoring the equipment to its original condition must be paid in full by the purchaser. The guarantee provided extends according to this guarantee declaration only to the repair or replacement of the appliance. The provisions of the Terms of Sales and Delivery of the manufacturer remain, insofar as they are not altered by these guarantee conditions, fully in effect.
11. There is a charge for services provided outside of the context of these guarantee conditions.
12. In order for a warranty claim to be honored by the manufacturer, the appliance must be paid for in full to the manufacturer and the claimant must have met all his obligations to his vendor in full.
13. The enamelled internal boiler for water heaters is warranted for the specified period from the delivery date provided all warranty terms described under Points 1 to 12 are observed with in full. If the warranty terms have not been met, the legal warranty requirements of the respective country from which the appliance was shipped shall prevail.
14. Claim satisfaction according to prevailing Austrian Product Liability Law:
Claims for compensation under the title of product liability are only justified if all prescribed measures and necessities for fault-free and approved operation of the appliance have been met. This includes among other things the prescribed and documented anode replacement, connection to proper operating voltage, prevention of damage due to improper use, etc. From these conditions it can be concluded that if all requirements are met (norms, installation and operation guide, general guidelines, etc.), the device or product fault resulting in the secondary damages would not have occurred. Furthermore it is mandatory that for processing of the claim the necessary documentation such as the part number and manufacturing number of the water heater, the seller's invoice and that of the executing license holder as well as a description of the malfunction for a laboratory study of the appliance in question (absolutely required, since a specialist will study the appliance and analyze the cause of failure) be provided. Furthermore, the original installation at the place of assembly may not be changed, converted or dismantled before being inspected by the manufacturer or an appointed expert.
Any change to the original assembly situation on-site will lead to the immediate exclusion of any claims arising from the warranty, guarantee or product liability.
To prevent misidentification of the water heater during transport, it must be marked with a highly visible and legible marking (preferably including address and signature of the end customer). Corresponding pictorial documentation indicating the extent of the damage, the installation (cold water line, hot water outlet, heating outgoing and return, safety fixtures, expansion tank if present) as well as the defect location on the water heater is also required. Furthermore the manufacturer reserves the express right to require that the purchaser provide all the documents and equipment and equipment parts necessary for clarification. The prerequisite for performing services under the title of product liability is that it is the claimant's obligation to prove that the damage was caused by the manufacturer's product. Damage compensation according to the Austrian Product Liability Law is subject to a 500 Euro deductible. Until the entire matter is clarified and the circumstances as well as determination of the causal factors are established, the manufacturer is held faultless. Non-observance of the operating and installation guide and/or the relevant norms is considered negligent and will result in a liability disclaimer within the scope of compensation for damages.

The illustrations and data are not binding and may be modified without notice when technical improvements are made.
Subject to printing errors and technical changes.

