STRATIFIED STORAGE TANKS
FOR MAXIMUM
ENERGY EFFICIENCY

ANSWERS TO YOUR QUESTIONS ON
ENERGY EFFICIENCY, TECHNOLOGY AND
CONVENIENCE IN HEAT STORAGE

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SAILER BUILDING SERVICES – EFFICIENT SYSTEMS SAVE MONEY
For many years Sailer GmbH has been a well-known manufacturer of energy-efficient systems for the generation of heat and hot water. With our innovative products and solutions, we deliver energy efficiency in building services. Heat storage tanks play an important role in this respect. They are the heart of any system and make a significant contribution to efficiency and cost savings.

**It's all about the heat storage tank**

This brochure presents our stratified storage tanks and the whole array of benefits they offer. It explains exactly why Sailer stratified storage tanks with patented layer elements can deliver maximum energy efficiency.

If you have any questions, please don’t hesitate to contact us. My team and I will be pleased to help.

Matthias Ruff
Sales Manager

Standard models or special versions, welded ex factory or on site – Sailer has the right solution.

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**TOP TOPICS**

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**10 - 11**

**NOT ALL STORAGE TANKS ARE THE SAME! DISCOVER WHAT’S REALLY INSIDE**

A practical comparison reveals the difference in energy efficiency of different heat storage systems.

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**12 - 13**

**THE SAILER STRATIFIED STORAGE TANK IS THE MOST ENERGY-EFFICIENT SOLUTION**

What do these tanks have that others don’t? We reveal the answers and explain why you shouldn’t be satisfied with less!

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**24 - 25**

**SPECIAL STORAGE TANKS – ALWAYS THE RIGHT SOLUTION**

High-quality storage tanks, made in Germany to custom specifications and offering excellent value for money.

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**28 - 29**

**WHICH STORAGE TANK IS SUITABLE FOR WHICH APPLICATION?**

Choosing the right storage tank is crucial to the efficiency of the heating system. Sailer supplies the right storage tank for any type of heat generator.
WHAT REALLY MATTERS TO BUILDERS, DESIGNERS, RETAILERS AND INSTALLERS

Requirements are a question of perspective

BUILDERS, HOME CONSTRUCTION COMPANIES...

Energy costs are rising all the time, putting more strain on household budgets. So for builders and homeowners, long-term energy-saving is very important. Sailer offers innovative German technology that delivers maximum heat storage efficiency in new and old buildings, saves money and provides convenience.

WHAT WE DEMAND FROM BUILDING SERVICES

DESIGNERS, ARCHITECTS...

GOOD ADVICE AND SUPPORT FROM THE START

Project managers rely on know-how, individual solutions and partnership. Sailer offers project support in the form of advice, templates for tenders and technical documents such as hydraulic diagrams.
It’s a fact that heating a building and generating hot water accounts for around 40% of total energy consumption. So in new builds and buildings in need of renovation, the only logical choice is to use energy-efficient building services that delivers maximum energy efficiency and therefore minimises costs.

Builders, designers, retailers and installers all need high-quality solutions that offer cost-effectiveness and the efficient use of valuable resources while being designed with the needs of buyers and users in mind.

Innovative products from Sailer GmbH provide energy-efficient solutions in heating and hot water generation, whether it be for hotels, restaurants, public buildings, detached homes, blocks of flats or commercial and industrial premises. We are always there for our customers and partners, providing advice and support and professionally meeting their every need.

SYSTEM SOLUTIONS – MY KIND OF THING

Complete solutions that are individual and offer easy handling, minimal installation work, quick assembly and safety are important to the people carrying out work on the construction site. Smooth processes – from delivery to commissioning and maintenance – characterise all Sailer systems and services.

3-STAGE DISTRIBUTION CHANNEL

For retailers, the consistent use of the 3-stage distribution channel is essential to the partnership with suppliers and specialised tradespeople. Sailer offers retailers technical support in the design of individual solutions, assistance during all project phases and, last but not least, prompt delivery.
The average person in Germany consumes around 124 litres of drinking water a day. 35% to 40% of this is hot water.
Heat energy accounts for much of the energy consumption of private homes, public buildings and industrial or commercial premises.

In private homes, hotels, public buildings and so on, the heat used to keep rooms warm and generate hot drinking water is usually provided by central heating systems. The heat is produced by different heat generators and temporarily stored in a heat storage tank.

In industry, many production areas need process heat, which is often provided by hot and/or cold storage tanks.

The heat storage tank plays a vital role in the efficiency of a system. The heat energy from the heat generator must be stored as efficiently as possible with minimal heat loss.

Highly efficient heat storage tanks help to save costs and primary energy, ensure smooth operation and enhance the convenience offered by the installed systems.

For many years, Sailer has been manufacturing highly efficient customised hot and cold storage tanks featuring unique, patented stratified charging devices with a capacity of 100 l to 100 000 l.
The heat storage tank is the central element that connects the heat generator to the heat consumers.

Not all heat generators are the same and neither are heat consumers! Heat pumps, for example, operate with a small spread and relatively high flow rates, whereas condensing boilers work most efficiently at low return temperatures.

If you are connected to a district heating network, the operator will usually require you to comply with a maximum return temperature.

The heat consumers are usually the drinking water heating system and the heating circuits that keep the building warm. Heating drinking water requires the heat storage tank to supply a higher temperature level than the heating circuits.

The tank is therefore split into two temperature areas: drinking water at the top and water for heating in the middle. The heat generator supplies both areas at different temperature levels, according to requirements.

As the central linking element, the heat storage tank has a significant influence on the energy efficiency and function of the entire system.
FROM GENERATOR TO CONSUMER VIA THE HEAT STORAGE TANK

MAKING SURE NOTHING IS LOST

A storage tank which is perfectly attuned to the heat generators and consumers meets the following essential criteria:

- The different temperature levels provided by the heat generator can be stratified without loss of temperature
- Heat is stored with the lowest possible losses
- When heat is discharged, the temperature levels can be supplied to the consumers, again without loss of temperature.
- The return from the consumers is also efficiently stratified in the storage tank
- Burner starts and run times are optimised; with heat pumps, the seasonal performance factor is improved

A storage tank tailored exactly to individual requirements can optimise the efficiency of heat generators, consumers and thus the system as a whole.
STORAGE TANK TYPE 2 THE WOULD-BE ENERGY SAVER

Tank volume not optimally stratified.
When a buffer tank with internal heat exchanger and stratification pipe is charged, the tank volume is not optimally stratified.

Temperature distribution in the tank is not ideal.
Because input stratification is less than optimum, the temperature distribution is not ideal

High energy use.
After charging with 10 kWh, the tank is not sufficiently heated; extra heat energy of around 10 kWh has to be used.

STORAGE TANK TYPE 3 THE EXPERT

Tank volume optimally stratified.
When a Sailer stratified storage tank is charged, the tank volume is optimally stratified.
The stageless, horizontal 360° stratification is the most effective form of turbulence-free stratification.

Ideal temperature distribution and temperature levels
The stratified charging achieves an ideal temperature distribution and perfect temperature levels throughout the tank. Each area is clearly separated by a transition layer.

Minimum energy use.
After charging with 10 kWh, the tank is ideally heated so no additional heat energy is needed.
A practical comparison

Let’s look at an example showing the difference between the energy efficiency of different heat storage systems.

In the comparison shown here, all the storage tanks are charged with the same amount of heat: 10 kWh (corresponding to approx. 1 litre of fuel oil).

At the end of charging, the storage tank should be charged such that 190 l of hot water can be heated to 50°C with a fresh water station.

The illustrations show the temperature distribution in the Sailer stratified storage tank and competitors’ storage tanks after charging with 10 kWh of heat.

STORAGE TANK TYPES 1 and 2

Instead of 10 kWh of heat energy, the tank with a conventional smooth tube heat exchanger uses a total of around 26 kWh and the tank with an internal heat exchanger and stratification pipe a total of around 20 kWh.

What’s more, the two competitor models cannot achieve the required temperature or volume of hot water because the heat is distributed at a relatively low temperature level over a large part of the storage volume. In these storage tanks, charging often takes place with less than optimum or indeed no stratification. To heat the tanks to the required temperature, extra heat energy has to be used.

STORAGE TANK TYPE 3

With the Sailer stratified storage tank, the optimally stratified charging allows the heat to be concentrated at a high temperature level at the top of the tank and the required hot water temperature and volume are achieved during discharging.

The benefits of Sailer’s stratification charging technology are clear to see. Less primary energy is required, which means that fuel and/or electricity costs are substantially reduced. The technology optimises the run time and operation of boilers and heat pumps and allows solar heat systems to be operated with a high degree of utilisation.

The right storage tank perpetually saves money

See for yourself how Sailer stratification charging technology could provide the perfect solution for your needs. We offer a range of technically mature products and solutions.
Surrounded with high-quality polyester fibre fleece
100-110 mm class C
130-160 mm class B
120 mm at top, 160 mm at bottom.
With large tanks up to 400 mm.

Resistant polystyrene jacket with hook and loop strip and cover hood.
Quick installation thanks to easy-to-fit multi-part insulation shells.

Stratified charging device for solar

Screw-in electric heating elements with various output levels (optional)

HYBRID QUATTRO: MAXIMUM EFFICIENCY WITH PATENTED STRATIFICATION ELEMENTS

Connection for VTB (flow temperature restriction)
Stratified storage tanks with the patented stratification ensure maximum energy efficiency in heat storage and hot water generation.

Thermal stratification ensures the greatest possible energy saving
The charging and discharging characteristics of the storage tank are key to the efficiency of a heating system. So in Sailer stratified storage tanks, the heat is stratified by the patented stratification chargers according to temperature level (hot at the top, warm in the middle, cold at the bottom) without mechanical moving parts or electrical parts, saving a considerable amount of energy. This unique, patented stratification charger technology can achieve primary energy savings of up to 60%.

Stratification without mechanical moving parts
Sailer stratification charging devices work without mechanical moving parts such as diaphragm valves. As a result, they are completely maintenance-free.

Stageless stratification
The many outlet openings on the stratified charging device are evenly distributed over its entire height. This allows stageless stratification into the right layer of the tank.

Horizontal 360° stratification
The outlet openings are spread over the whole of the stratified charging device. This results in a large flow cross-section and therefore very calm inflow. The stratification elements are also designed to make inflow horizontal. This horizontal 360° stratification prevents turbulence and therefore unwanted mixing.

Stratification quality remains stable
The stratified charging device is constructed such that when there are differences in density between the storage area and the charging device, no water can enter the stratified charging device from the storage area. This keeps the quality of stratification stable.

Very efficient heat storage
Optimum stratification allows heat energy to be stored with maximum efficiency. The temperature level provided by the heat generator is stratified with almost zero loss and can be reused again later by the consumers.

Stratified charging devices adapted to the heat generator
Different stratified charging devices are available depending on the type and output of the heat generator.

Optimum size and division of storage areas for every heat generator and consumer
Storage tanks are available as standard in different types and sizes. These were designed for standard applications and basically differ in the division of the storage areas and the configuration of the stratified charging devices. The HYBRID QUATTRO model, for example, is also available as the HYBRID QUATTRO 50% and the HYBRID QUATTRO 66% with correspondingly enlarged tank volumes.

Optional: integrated heat exchanger with stratified charging device for solar
Sailer’s patented stratified charging device is also used for solar charging. Even when there is little solar radiation, solar energy can be stratified in the storage tank for later use.
PERFECT CURVES

FOR NEW BUILDS OR RENOVATIONS

...OR SIMPLY WHEN SPACE IS TIGHT

ALL STORAGE TANKS ARE ALSO AVAILABLE IN AN OVAL SHAPE
Before function comes installation – or: how do you get a storage tank down narrow stairs, along corridors and through small doors into the boiler room?

You’re familiar with the situation…
In old buildings or historical buildings undergoing renovation, there is often a lack of space with narrow corridors, stairs and passageways. Even in new builds, small rooms and narrow access may make transport and installation inside the building very difficult.

In situations like these, oval storage tanks are the perfect solution
The XXL oval storage tank is a space-saving storage tank available in a range of variants, as either a buffer tank or stratified storage tank. Special sizes and configurations are also possible to suit specific requirements.

Sailer oval storage tanks are often real problem-solvers
With a small installation clearance of just 720 mm, the oval storage tank will pass through a door opening of 740 mm. Oval storage tanks can hold 40% more than a comparable round tank. An electric heating element can be fitted as an accessory for electric charging.

Example: HYBRID QUATTRO 850 XXL oval storage tank

Example: HYBRID QUATTRO 850 Round storage tank

Compact enough for easy installation – big on volume.
All standard tank types are available as XXL variants in an oval shape (720x1200 mm) with a volumetric capacity of 1200 l!

As well as round tanks, we also supply all of our standard tank types in an oval shape with a volumetric capacity of 1200 litres. Oval tanks can also be configured to suit your preferences and technical requirements.
The efficiency of heat pumps can be maximised with high-efficiency stratified storage tanks and fresh water stations.

Conventional storage tanks produce unnecessary costs
Unlike conventional storage tanks, where the areas for hot water generation and building heating cannot normally be charged and discharged efficiently, with the WPS all storage processes have been optimised. The storage areas are optimally divided and the tried-and-tested Sailer stratification elements prevent efficiency-reducing mixing. The result is shorter charging times, minimal power consumption and, last but not least, maximum convenience.

Efficiency and savings are key benefits of the Sailer heat pump stratified storage tank WPS
Every heat pump works most efficiently when the temperature levels in the storage tank are optimally used. That’s why the WPS maintains a higher temperature level at the top for hot water generation, while the temperature in the lower part of the tank, used to heat the building, may be lower. Naturally the WPS also features Sailer’s patented stratification chargers, which achieve stageless input stratification without moving parts or electrical parts up to a volumetric flow of 4 m³/h.

At very low outside temperatures the two storage areas can also be heated with electrical heating elements, either independently or together.

Low flow temperatures thanks to large plate heat exchangers in the fresh water station
In combination with Sailer’s FRIWASTA-Plus fresh water stations with their large plate heat exchangers, a comfortable hot water temperature of 45°C can be achieved even when the heat pump has a low flow temperature of 53°C. Sailer stratified storage tanks and fresh water technology optimise the seasonal performance factor of any heat pump and thus its annual heat consumption.
The tank features Sailer’s patented stratification chargers, which achieve stageless input stratification without moving parts or electrical parts up to a volumetric flow of 4 m³/h.

Screw-in electric heating elements with various output levels (optional)

**WPS – THIS HEAT PUMP STORAGE TANK MAKES OPTIMUM USE OF TEMPERATURE LEVELS**

WPS, the heat pump stratified storage tank with a fresh water station FRWASTA-Plus 20-40 and your choice of heat pump.
Inside the HYBRID LIGHT stratified storage tank is an integrated, spiral-shaped stainless steel corrugated tube for hot water generation using the continuous flow principle with up to 20 l/min.

The storage tank is suitable for wood and pellet boilers, combined heat and power plants (CHP) and operation with solar systems up to 25 m², or optionally up to 50 m².
For the integrated heating of drinking water and simultaneous buffering of heating water in detached and semi-detached homes, we offer two types of storage tank with integrated hot water generation based on the continuous flow principle, with up to 20 l/min at 45° C.

The HYBRID PLUS stratified storage tank offers integrated hygienic hot water generation based on the continuous flow principle by means of a finned tube heat exchanger with inner tin plating and a stratification charging element for stratified discharging.

The tank is suitable for wood and pellet boilers, CHP, oil- and gas-fired boilers, and local and district heating. It is also suitable for operation with solar systems up to an area of 25 m², or up to 50 m² as an option.

Heat exchanger with tin-plated inner tube for hot water generation based on the continuous flow principle, up to 20 l/min.

Cold water to heat exchanger

Hot water from heat exchanger

**HYBRID PLUS: WITH HOT WATER HEAT EXCHANGER FOR HEATING DRINKING WATER**

Copper finned tube solar heat exchanger up to 25 m² collector area (up to 50 m² as option)
FRIWASTA-PLUS
FRESH WATER STATIONS
FROM 20 l/min TO 800 l/min

POSSIBLE STRATIFIED STORAGE TANKS:
HLE, BASIC, HYBRID QUATTRO, HYBRID QUATTRO 50%, HYBRID QUATTRO 66%, WPS

FRESH WATER STATIONS

Stainless steel plate heat exchanger
MANAGER or MASTER control device

Supply of fresh cold water
Return to fresh water station
Hot water for all extraction points

Heating flow
Circulation

Any heat generator
Heat generator flow
Heat generator return

The problem
Health hazards such as legionella and other bacteria can develop in drinking water storage tanks. The solution to this problem is hygienic hot drinking water generation with fresh water stations.

How it works
With FRIWASTA-Plus fresh water stations, the hot water is freshly heated when demanded by the consumer (bathroom, kitchen etc.) using a plate heat exchanger with the continuous flow principle. The water is only heated when it is actually needed. The fresh water stations thus offer a real hygienic and economic advantage, especially where there is different user behaviour (some people opening the tap fully and some hardly at all).

FRIWASTA-Plus fresh water stations have been among the most modern and energy-efficient systems for hygienic drinking water generation for over 12 years, with tap capacities of 20-800 l/min.

Low flow temperatures with small spread
FRIWASTA-Plus fresh water stations are equipped with large plate heat exchangers. This allows a comfortable hot water temperature to be achieved even with a low flow temperature and small spread.

Areas of use
Fresh water stations are used in private homes, restaurants, guesthouses, hotels, other types of accommodation, municipal and public buildings, hospitals, care homes, military facilities, civil defence, the fire service, offices, production facilities, washrooms, canteens and more.

Improved performance, hygiene & safety

CASCADING FRIWASTA-Plus FRESH WATER STATIONS
With cascades of 2 stations, Sailer covers the complete output range from 40 l/min to 800 l/min. Cascading Sailer fresh water stations can make real economic sense because you only need to purchase two devices to achieve maximum reliability.
Sailer was looking for ways to minimise energy losses, increase energy efficiency and save resources even before the introduction of the energy label and ecodesign requirements. As standard, Sailer offers thermal insulation made of polyester fibre fleece in a resistant polystyrene jacket. For all tanks, you can choose between class B and class C versions as defined in the Ecodesign Directive and the ErP Directive. Class B thermal insulation reduces heat loss, or the tank’s standing loss by an additional 30%. For special and large tanks we have a wide range of thermal insulation solutions, such as mineral wool, cold insulation solutions of closed-cell rubber foam and sheet metal cladding.
Thermal insulation available from 100 mm to 400 mm

Sailer polyester fleece insulation adapts seamlessly to the tank body to reduce energy consumption. To specifically reduce energy losses in the tank cover, we use 160 mm thick insulation. The addition of insulation for the tank base provides all-round tank insulation. The multi-part insulation kit has fasteners on all sides concealed by an end strip.

**TO PREVENT HEAT LOSS**
Sailer GmbH is one of the leading manufacturers of storage tanks, with its own production facilities in Germany.

We manufacture products and systems designed to reduce operating costs for heating and cooling. This includes our energy-efficient storage tanks with patented stratified charging devices, which are available as standard products in a range of configurations to suit different requirements.

Special and large tanks made to the customer’s specifications are one of our specialities – with unbeatable value for money!

Over 50% of all Sailer storage tanks are custom-built on the basis of specific customer requirements.

We offer expert advice and project planning, so you get a solution tailored perfectly to your specific needs. No matter the dimensions or the configuration – our production department will build your own customised hot or cold storage tank.

SPECIAL TANKS MADE IN GERMANY – HIGH-QUALITY. INDIVIDUAL. MADE TO MEASURE!

WHERE OTHERS GIVE UP...

Storage tanks with custom diameter up to 3.5 m and custom height up to 15 m

External or internal piping

Copper finned tube heat exchanger with stratified charging device for solar

Nozzle pipe up to 100 m³/h

Lifting eye

Domestic water heat exchanger with stratified charging device

Special stratification elements up to 100 m³/h

Connection for thermometer

Collar and flange connections from 1/2” to DN 500

Manhole 420 x 320 mm

CUSTOM TANKS MADE TO MEASURE

Hot or cold storage tanks, with or without Sailer’s patented stratified charging device, manhole, collars, flanges, tank connections or heat exchanger – Sailer will build the tank you need for indoor or outdoor installation.

Over 50% of all Sailer storage tanks are custom-built on the basis of specific customer requirements.

We offer expert advice and project planning, so you get a solution tailored perfectly to your specific needs. No matter the dimensions or the configuration – our production department will build your own customised hot or cold storage tank.
If narrow doorways, winding staircases or other difficult circumstances make it impossible to deliver a complete storage tank to site, the tank can be delivered in parts as a construction kit. Qualified Sailer installers then professionally assemble the individual parts and weld them together directly on site. In this way, even the largest tanks can be installed in the desired location.

On request, we are pleased to confirm the quality of our work with a TÜV certificate.
Sailer offers innovative products and solutions for efficient heating and hygienic hot water supply. These are used in blocks of flats, for example.

Below you can see a complete system with a Sailer FRIWASTA fresh water station, supplying three flats with freshly extracted hot water. The heating circuits are supplied through underfloor heating circuit distributors in the individual flats.

Shown on the right is a system with the new domestic control centre CENTRASTA. This compact, ready-to-connect device combines a 190 l stratified heat storage tank, a fresh water station and a supply system for up to 6 heating circuits.

Because it can be connected to an existing 2-pipe system, it is suitable for new builds and especially for renovations.
COMPACT SOLUTIONS FOR MAXIMUM ENERGY EFFICIENCY!

- INDIVIDUAL
- ENERGY-SAVING
- ENVIRONMENTALLY FRIENDLY

CENTRASTA domestic control centre with 190l stratified storage tank

Sailer stratified storage tank with patented stratification - alternatively hydraulic separator

Cold water
Hot water / flow
Circulation
Return
### WHICH STORAGE TANK FOR WHICH APPLICATION?

<table>
<thead>
<tr>
<th>Tank type</th>
<th>Sailer stratified buffer tank Type HLE</th>
<th>Sailer stratified storage tank Type BASIC</th>
<th>Sailer stratified storage tank Type HYBRID LIGHT</th>
<th>Sailer stratified storage tank Type HYBRID Plus</th>
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<tr>
<td>Details on page</td>
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<td>18</td>
<td>19</td>
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<tr>
<td>Heat generators</td>
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<td>Wood &amp; pellet boilers</td>
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<td>Oil- &amp; gas-</td>
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<td>Solar system up to 25 m², alternati</td>
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<tr>
<td>Electric</td>
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<tr>
<td>Patented Sailer stratified charging device for</td>
<td>solar charging</td>
<td>solar charging</td>
<td>solar charging</td>
<td>Up to approx. 2 m³/h for:</td>
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<td></td>
<td>• stratified hot water discharging</td>
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<td></td>
<td>• heating return</td>
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<td></td>
<td>• buffering • cascade</td>
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<tr>
<td>Hygienic hot drinking water generation</td>
<td>External, hygienic hot water generation based on the continuous flow principle with FRIWASTA-Plus fresh water stations</td>
<td>Hot water generation based on the continuous flow principle with stainless steel corrugated tube</td>
<td>Hot water generation based on the continuous flow principle with copper finned tube heat exchanger</td>
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<td></td>
<td>Tap capacity up to approx. 100 l/min</td>
<td>Tap capacity up to approx. 20 l/min</td>
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<tr>
<td>Tank volume</td>
<td>550, 850, 1050, 1200 XXL oval, 1500, 2000, 2500, 3000</td>
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<tr>
<td>Tank shape</td>
<td>round and oval</td>
<td>round and oval</td>
<td>round and oval</td>
<td>round and oval</td>
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<tr>
<td>Volume</td>
<td>100%</td>
<td>100%</td>
<td>33%</td>
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</tbody>
</table>

Customised modifications to dimensions, connection sizes, stratified charging output etc. are possible with all types.
## SAILER STANDARD STRATIFIED STORAGE TANKS

<table>
<thead>
<tr>
<th>Sailer stratified storage tank Type HYBRID QUATTRO</th>
<th>Sailer stratified storage tank Type HYBRID QUATTRO 50%</th>
<th>Sailer stratified storage tank Type HYBRID QUATTRO 66%</th>
<th>Sailer heat pumps Stratified storage tank type WPS</th>
<th>Tank type</th>
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<tbody>
<tr>
<td><img src="sailer.png" alt="Image" /></td>
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<td>12</td>
<td>13</td>
<td>13</td>
<td>16</td>
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</tbody>
</table>

### Heat pumps

- **Solar charging**
  - up to approx. 2 m³/h for:
    - stratified hot water discharging
    - heating return
    - buffering • cascade
  - up to approx. 5 m³/h for:
    - stratified hot water discharging
    - heating return
    - buffering • cascade
  - up to approx. 4 m³/h for:
    - stratified hot water discharging
    - heating return
    - buffering • cascade

### Tap capacity

- Tap capacity up to approx. 30 l/min
- Tap capacity up to approx. 80 l/min
- Tap capacity up to approx. 60 l/min

### External, hygienic hot water generation based on the continuous flow principle with FRIWASTA-Plus fresh water stations

- Tank volume

### Tank shape

- round and oval

### Volume

- 33%
- 50%
- 66%
- 60%
Operation via touchscreen room controller with room temperature sensor for control of all device functions

“MASTER” control device to control complete system

Ventilation
Swimming pool
Radiators
Underfloor heating
Underfloor heating

COMPLETE SYSTEM WITH HYBRID QUATTRO STRATIFIED STORAGE TANK

HYDRAULIC DIAGRAMS
Communication via remote control portal
PC, laptop, tablet and smartphone

Link to building control technology via ModBus TCP interface or Bacnet interface

Solar-High-performance collectors „FOCUS“

Solar station „SOSTA“ alternative solar transfer station

Stratified storage tank
STANDARD SYSTEM WITH HYBRID QUATTRO STRATIFIED STORAGE TANK

Oil- or gas-fired boiler

Security group optional

Solar station "SOSTA" alternative solar transfer station

Solar-High-performance collectors "FOCUS"

Stratified storage tank

STANDARD SYSTEM WITH WPS HEAT PUMP STRATIFIED STORAGE TANK

Heat pump

More diagrams are available on our website in the download area.
# Summary of Technical Data

<table>
<thead>
<tr>
<th>NAME</th>
<th>UNIT</th>
<th>550</th>
<th>850</th>
<th>1050</th>
<th>1200</th>
<th>1500</th>
<th>2000</th>
<th>2500</th>
<th>3000</th>
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<tbody>
<tr>
<td>Nominal volume</td>
<td>Litres</td>
<td>550</td>
<td>850</td>
<td>1050</td>
<td>1200</td>
<td>1500</td>
<td>2000</td>
<td>2500</td>
<td>3000</td>
</tr>
<tr>
<td>Tank diameter</td>
<td>mm</td>
<td>650</td>
<td>790</td>
<td>900</td>
<td>720/1200</td>
<td>1000</td>
<td>1200</td>
<td>1300</td>
<td>1400</td>
</tr>
<tr>
<td>Diameter with ErP class C thermal insulation</td>
<td>mm</td>
<td>850</td>
<td>990</td>
<td>1100</td>
<td>920/1400</td>
<td>1200</td>
<td>1420</td>
<td>1520</td>
<td>1620</td>
</tr>
<tr>
<td>Diameter with ErP class B thermal insulation</td>
<td>mm</td>
<td>910</td>
<td>1050</td>
<td>1160</td>
<td>980/1460</td>
<td>1320</td>
<td>1520</td>
<td>1620</td>
<td>1720</td>
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<tr>
<td>Tank height</td>
<td>mm</td>
<td>1890</td>
<td>1925</td>
<td>1965</td>
<td>1970</td>
<td>2200</td>
<td>2170</td>
<td>2200</td>
<td>2340</td>
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<tr>
<td>Thermal insulation height</td>
<td>mm</td>
<td>2090</td>
<td>2090</td>
<td>2125</td>
<td>2130</td>
<td>2360</td>
<td>2330</td>
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</tr>
<tr>
<td>Weight</td>
<td>kg</td>
<td>180</td>
<td>195</td>
<td>205</td>
<td>220</td>
<td>240</td>
<td>260</td>
<td>285</td>
<td>320</td>
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<tr>
<td>Permissible operating temperature</td>
<td>°C</td>
<td>110</td>
<td>110</td>
<td>110</td>
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<td>110</td>
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<tr>
<td>Permissible tank operating pressure</td>
<td>bar</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Required minimum room height</td>
<td>mm</td>
<td>2100</td>
<td>2100</td>
<td>2150</td>
<td>2150</td>
<td>2400</td>
<td>2400</td>
<td>2550</td>
<td>2600</td>
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<tr>
<td>Standing loss with ErP class C thermal insulation</td>
<td>W</td>
<td>106</td>
<td>126</td>
<td>139</td>
<td>146</td>
<td>152</td>
<td>171</td>
<td>178</td>
<td>196</td>
</tr>
<tr>
<td>Standing loss with ErP class B thermal insulation</td>
<td>W</td>
<td>74</td>
<td>87</td>
<td>98</td>
<td>102</td>
<td>107</td>
<td>121</td>
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<td>142</td>
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<tr>
<td>Opt. solar heat exchanger collector area</td>
<td>m²</td>
<td>6-10</td>
<td>6-14</td>
<td>8-14</td>
<td>8-16</td>
<td>10-16</td>
<td>12-20</td>
<td>12-25</td>
<td>12-25</td>
</tr>
<tr>
<td>Opt. internal hot water tap capacity at tank temperature of 60°C</td>
<td>l/min</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
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</tr>
<tr>
<td>Opt. internal hot water tap capacity at tank temperature of 53°C</td>
<td>l/min</td>
<td>20-800</td>
<td>20-800</td>
<td>20-800</td>
<td>20-800</td>
<td>20-800</td>
<td>20-800</td>
<td>20-800</td>
<td>20-800</td>
</tr>
</tbody>
</table>

Customised modifications to dimensions, connection sizes, stratified charging output etc. are possible with all types.
State-of-the-art technology from Sailer for the generation, storage, transfer and control of heat and hot water.

When it comes to energy-efficient hot water systems, the name Sailer GmbH has been well known to designers, wholesalers and installers for many years. Sailer offers an extensive range of high-quality products and system solutions for technical building installation (see illustration).

These are used in detached and semi-detached homes, new and old buildings, restaurants, guesthouses and hotels, municipal and public buildings such as schools, military facilities, civil defence, the fire service, commercial and industrial firms, sports facilities and more.
RECOMMENDED!

Notable customers rely on our expertise.
Why not join them and choose Sailer products and Sailer services?
Sailer GmbH designs and manufactures technologically advanced solutions and offers a wide range of attractive services.

Founded in 1997, Sailer GmbH is a mid-sized, owner-managed solution provider based in Ehingen in southern Germany, offering a mix of standard and customised products.

The product range includes hot and cold storage tanks with patented stratified charging technology, fresh water stations for hygienic hot water generation, local and district heating units, domestic control centres for blocks of flats and solutions for the management and integration of building control technology. Other specialisations include process heat, solutions for cold and heat transfer, and solar systems.

**Efficient service through tailor-made solutions**

A focus on service is important to company owner Roland Sailer and managing director Andreas Heinzl, which is why they have embedded this mindset in the company’s philosophy. Advice and support from project analysis to successful system start-up is therefore an integral part of every project handled by Sailer. Through a close partnership with the customer, Sailer develops made-to-measure solutions designed with future needs in mind, enabling the customer to achieve maximum energy and cost savings for heating, cooling and hygienic hot water generation. The focus is always on the complete solution, with which Sailer offers efficient system technology to customers in commercial and industrial buildings, hotels, hospitals, public buildings and private homes.

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