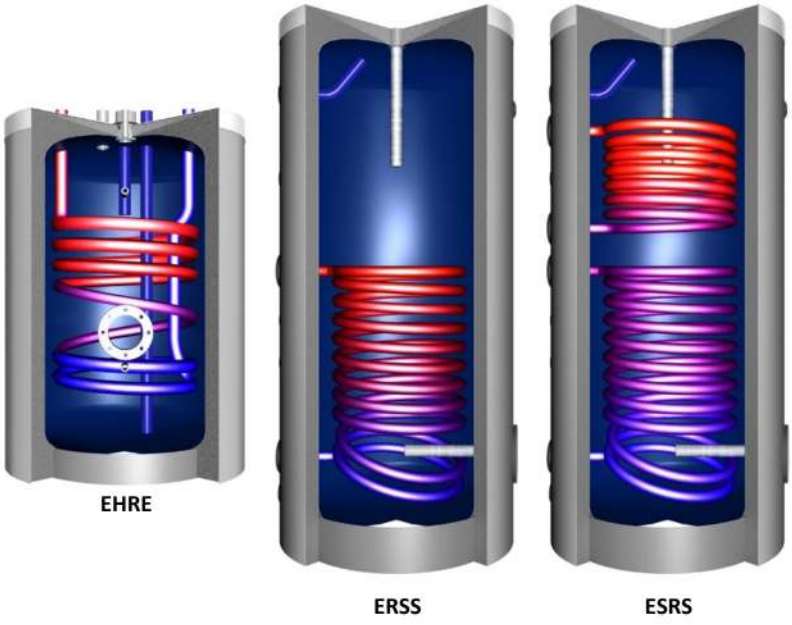
Cat. No.: _____ Date of Manufacture: _____

Serial number: _____ Quality Control: _____

Domestic water storage tank

with enamel coating
120–500 liters



Description – Commissioning – Maintenance

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1. General Information

We offer a complete range of high-quality tanks from 120 to 500 liters.
The specific requirements of the various hydraulic integration options and the selection of environmentally friendly materials have been taken into account.

The storage tank range includes the following models from 120 to 500 liters:
Under-counter storage tanks
1 or 2 permanently welded steel tube coils
1 or 2 permanently welded, double-coiled steel tube coils

Tanks with double-coiled, extra-large coils are specifically designed for heating heat pumps.

The unit is supplied complete with a flanged lid, protective cover, thermometer, magnesium anode, and immersion sleeve.

All interior surfaces are enameled in accordance with DIN standards. Depending on the Type, 1 to 2 magnesium anodes provide additional protection.
The installation and operating instructions are included with the tank and must be provided to the user. It is essential to read these instructions carefully to ensure compliance with safety requirements.

If the tank is sold or transferred to a third party, these installation and operating instructions must be provided along with the unit. Therefore, please keep these instructions in a safe place near the unit!



We assume no liability for damage resulting from improper use or failure to follow the installation and operating instructions.

Energy conservation begins with a modern domestic hot water system. In most conventional systems, thermal losses are often far greater than the energy required to heat the water itself. Therefore, the following points should be taken into account when planning modern domestic hot water systems.

1.1. Storage Tank Size

The tank capacity and the charging control must be adapted to the demand. For systems in residential areas, the tanks should be large enough so that a maximum of two recharges per day are sufficient and the water temperature can be maintained at approximately 60°C (to prevent Legionella).

1.2. Different Energy Sources

Whether powered by oil, gas, solar, solid fuel, or electricity—a modern domestic hot water system should be able to switch to whichever energy source is currently the most cost-effective.

1.3. Circulation

Circulation should be avoided whenever possible. Electric trace heating, small pipe diameters, and, above all, good pipe insulation can replace a circulation line. If a circulation pump (in older systems) is necessary, it should definitely be operated using a timer.

1.4. Storage Tank Insulation

Optimal insulation of the tank and piping should be a fundamental principle of any new system.
The thermal insulation consists of high-quality, CFC-free PUR (polyurethane) rigid foam, whose thermal insulation performance is approximately 35% better than that of comparable insulation materials.

Tanks ranging from 120 to 500 liters are permanently encapsulated with PUR rigid foam and feature a removable foam jacket. This eliminates gap losses, the chimney effect, and thermal bridges.

1.5. Pressure/Temperature Limits

Domestic hot water temperature	max. 95°C
Heating coil temperature	max. 110°C
Domestic hot water pressure	Max. 10 bar
Heating coil pressure	Max. 16 bar

2. Hydraulic Integration

2.1. General Information

Applicable standards and regulations must be followed. The rules regarding corrosion protection in domestic water lines must be observed (DIN 4708). The hot water, circulation, heating supply, and heating return lines must be connected in such a way that no thermal gravity circulation can occur.
The cold-water connection must be installed in accordance with DIN 1988 and DIN 4753 Part 1.

Register storage tanks and buffer tanks may only be installed in closed systems.

All connections must be pressure-tight. Unused connections must be properly sealed. To avoid unnecessary heat loss through the pipes, all pipes should be optimally insulated. The tank must be installed exclusively in a frost-protected room. Installation and commissioning must be performed by a licensed specialist contractor.

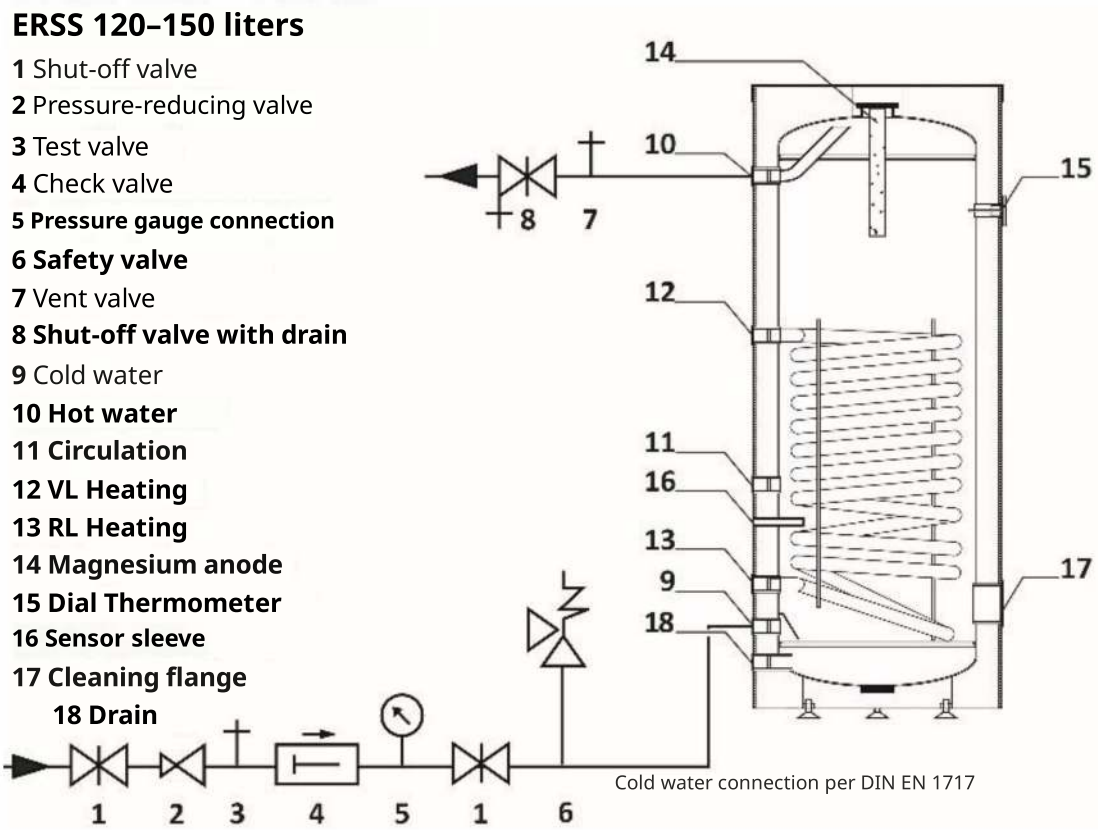
To prevent expansion noises caused by friction against stoneware or concrete surfaces, the tanks must be leveled using the foot screws, and the adjustable feet must be fitted with rubber pads.

CAUTION: Before commissioning the heat exchangers with heating water, a solar system, or an electric heater, the tank must be filled with domestic water; otherwise, damage to the coating may occur! If domestic water is heated electrically in the summer, the heat exchangers must not be shut off on both sides. Otherwise, excess pressure may build up in the heat exchanger.

Important: If a coil is not required for a tank, it must be sealed to prevent oxygen from entering.
Condensation in the coil, combined with oxygen, can lead to corrosion.
Under no circumstances should the coil be filled with liquid, as this will cause excess pressure.

ERSS 120–150 liters

1 Shut-off valve
2 Pressure-reducing valve
3 Test valve
4 Check valve
5 Pressure gauge connection
6 Safety valve
7 Vent valve
8 Shut-off valve with drain
9 Cold water
10 Hot water
11 Circulation
12 VL Heating
13 RL Heating
14 Magnesium anode
15 Dial Thermometer
16 Sensor sleeve
17 Cleaning flange
18 Drain



Cold water connection per DIN EN 1717

The warranty and guarantee for enameled tanks are void if:

- the connections are not installed in accordance with the instructions
- the potable water has a chloride content of >70 mg Cl/L
- no fine strainer is installed in the cold water and circulation lines and leakage currents occur
- We recommend electrically isolating the connections using insulated screw fittings

2.2. Mixed Installation

In mixed installations, the rules of good engineering practice require that an appropriate electrical isolation be provided for the conductive connection between the different materials. In heat exchangers through which heating water flows, electrical isolation must also be provided in the supply and return lines to prevent a short circuit via the required grounding of the line.

2.3. Water Pressure Surges

The installation of quick-closing valves—such as single-lever mixers, solenoid valves, and ball valves—with extremely short closing times can result in water hammer. Water hammer pressures can reach very high levels and, over the medium term, can lead to wear and tear and the rupture of pipes and tanks. Safety valves react too slowly. When using such components, appropriate “water hammer damping” measures must be provided. Damage caused by overpressure is not covered by the warranty.

3. Commissioning / Maintenance

3.1. Commissioning

Commissioning must be performed by a licensed specialist contractor.

- Tighten flange bolts – 50 Nm
- Fill the water heater
  - Open the faucets until water flows out in a full stream
  - Adjust the safety valve
  - The water heater may not be heated until it is completely filled

Caution:

- **The electric heater must not be turned on until the tank is completely filled with water!**

After the first heating cycle of the tank, all connections and the boiler flange must be retightened and checked for leaks. Due to transportation and the initial heating cycle, the torque of the flange bolts may have decreased. In this case, the flange bolts must be retightened to 50 Nm to prevent subsequent damage.

3.2. Maintenance

The safety valve’s vent line in the cold-water pipe must always remain open. The safety valve’s operational readiness must be checked approximately once a month by lifting the valve slightly.

The flange gasket must also be inspected at regular intervals. According to DIN 4753 Part 6, the proper functioning of the magnesium anode is only guaranteed if it is replaced at least every 24 months!

The required cleaning intervals vary depending on water quality and the temperature of the heating medium and storage tank. **It is recommended that the system be inspected at least every two years.**

The glazed surface largely prevents scale from becoming firmly embedded and allows for quick cleaning using a high-pressure water jet. Large scale deposits must be broken up with a wooden stick before rinsing. Under no circumstances should sharp-edged metal objects be used for cleaning, as there is a risk of damaging the tank.

The heating element should be descaled annually, depending on water hardness and operating time. At the same time, a functional check of the control thermostat, safety temperature limiter, and heating elements should be performed. Systems taken out of service must be drained and protected against frost.

IMPORTANT! Check the tank for leaks at regular intervals. We assume no liability for water damage. A new gasket must be installed after opening the flange. Tightening torque for the screws: 50 Nm

3.3. Warranty

The company provides a warranty for all parts it supplies in accordance with its general terms and conditions. Warranty claims are subject to compliance with the following conditions:

- Inspection of the scope of delivery; in case of doubt, immediate notification
- Frost-proof installation
- **Regular leak checks of the tank, as well as all connections and the flange**
- Annual inspection and cleaning of the electric heating element (if present)
- **General inspection every two years and replacement of the flange gasket**
- Operate only in closed systems
- Compliance with maximum temperatures and pressures (see page 4)
- Inspect the magnesium anode at least every two years and replace it if necessary

Caution: Notice for Users

Installation, commissioning, and maintenance must be performed by qualified personnel. Be sure to receive instruction on safety-related operating procedures during handover.
Proceed with caution when working on the system. The tanks are under pressure and hot. Do not open any connections until the tanks have depressurized and cooled down. Before working on the tank, ensure that all components are de-energized.

In extreme cases, excess pressure may build up, which is released via the safety pressure relief valve. The “relief line” must be clearly marked and protected from access by people and animals.
Depending on the controller setting, the water temperature can reach up to 95°C. Ensure that a “scald protection” device is in place. The manufacturer assumes no liability for improper handling.



The warranty and guarantee for enameled storage tanks are void if:

- **the connections are not installed in accordance with the instructions**
- **the potable water has a hardness of < 6° dH**
- **the potable water has a chloride content of >70 mg Cl/L**
- **the potable water has a conductivity of < 300 µs/cm**
- **no magnesium anode has been installed, or an external current anode has been installed instead of a magnesium anode**
- **the potable water has a pH value of < 6.5 according to the Drinking Water Ordinance**
- **No fine strainer is installed in the cold water or circulation line, and leakage currents occur**
- **We recommend electrically isolating the connections using insulated screw fittings**

5. Electric Heating Elements

5.1 Electric Heaters

All enameled storage tanks can be equipped with flanged heaters of various power ratings. The heating element must meet the following requirements:

- A length appropriate for the respective storage tank size
- TÜV or VDE-certified design
- Installing third-party products voids the warranty!

5.2 Electrical Connection

The electrical connection must be performed only by qualified personnel from a licensed electrical contractor. The relevant regulations must be observed when making the electrical connection. See the operating instructions for the electric heater.

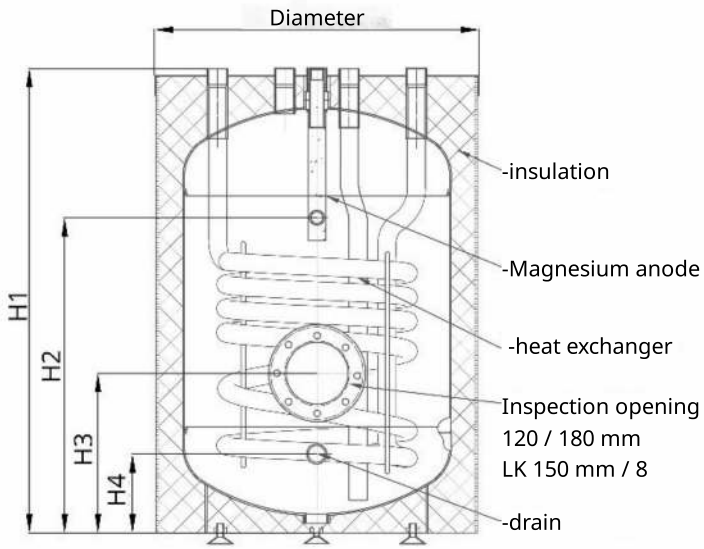
5.3. Use and Maintenance

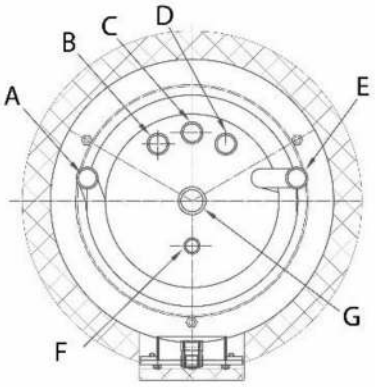
When using the electric heater in hard domestic water, measures to reduce scaling must be implemented on-site, or the electric heater must be descaled (initially after approximately 3 months, then at regular intervals as required).
Scale buildup on the heating elements can cause the safety limiter to trip, lead to thermal damage, or result in pitting corrosion of the heating coil!
Damage caused by scale buildup is not covered by the warranty!

* The condition of the anode must be checked after 12 months. The anode must be replaced no later than 18 months after installation.

6. Technical Specifications and Connections

6.1. Under-sink storage tank EHRE 120–150 liters

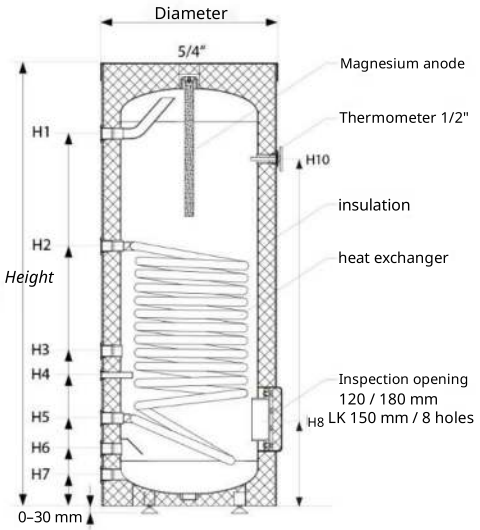




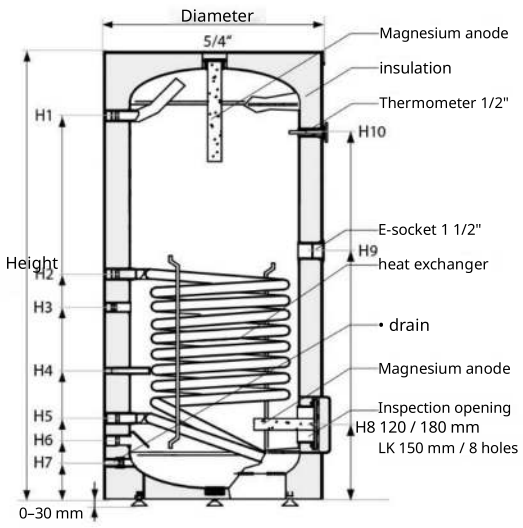
	Application	Dimensions	120	150
H1	Height	with insulation - mm	885	1035
	Diameter	with insulation - mm	600	600
D	cold water	Height - mm	865	1015
		Connection - female thread	1"	1"
B	hot water	Height - mm	865	1015
		Connection - female thread	1"	1"
C	circulation	Height - mm	865	1015
		Connection - female thread	1"	1"
H3	Bottom flange	Height - mm	298	298
		Ø - mm	120/180	120/180
A	Flow Register	Height - mm	865	1015
		Connection - female thread	1"	1"
E	RL Register	Height - mm	865	1015
		Connection - female thread	1"	1"
H2	Thermometer	Height - mm	588	738
		Connection - female thread	1/2"	1/2"
F	Sensor sleeve	Height - mm	865	1015
		Connection - female thread	1/2"	1/2"
G	Magnesium anode	Height - mm	865	1015
		Connection - female thread	1 1/4"	1 1/4"
H4	drain	Height - mm	145	145
		Connection - female thread	3/4"	3/4"

6.2. Floor-standing storage tanks ERSS 120–400 liters

Dimension Sheet ERSS 120–500



ERSS 120–140

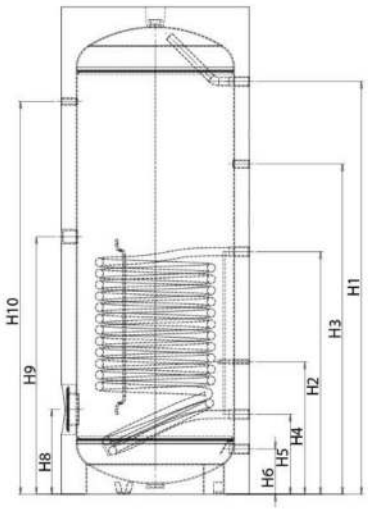


ERSS 200, 200-A, 300, 400, 400-PUR

	Application	Dimension	120	140	200	200-A	300	400	400–, PUR
	Height	with insulation - mm	1150	1290	1110	1355	1615	1770	1750
		without insulation - mm						1670	1670
	Diameter	with insulation - mm	518	518	660	670	660	800	750
		without insulation - mm						600	600
H1	hot water	Height - mm	920	1070	860	1040	1354	1467	1467
		Connection - female thread	3/4"	3/4"	1"	1"	1"	1"	1"
H2	Flow Register	Height - mm	750	750	790	600	737	867	867
		Connection - female thread	3/4"	3/4"	1"	1"	1"	1"	1"
NZ	circulation	Height - mm	450	450	680	500	637	767	767
		Connection - Female Thread	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
H4	Guide Sleeve	Height - mm	375	375	435	340	432	567	567
		Size - mm	11	11	11	11	11	11	11
H5	RL Register	Height - mm	250	250	290	240	267	317	317
		Connection - female thread	3/4"	3/4"	1"	1"	1"	1"	1"
H6	cold water	Height - mm	165	165	210	150	130	237	237
		Connection - Female Thread	3/4"	3/4"	1"	1"	1"	1"	1"
H7	drain	Height - mm	85	85	130	Available at		157	157
		Connection - female thread	3/4"	3/4"	1"		, available	1"	1"
H8	Inspection Opening	Height - mm	250	250	290	320	337	317	317
		Connection - Flange mm	120/180	120/180	120/180	120/180	120/180	120/180	120/180
H9	electric heater	Height - mm			540	655	805	922	922
		Connection - female thread			1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
H10	Thermometer	Height - mm	855	1005	795	1020	1222	1407	1407
		Connection - Female Thread	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
	Magnesium anode	Height - mm	1120	1270	1100	1355	1590	1770	1770
		Connection - Female Thread	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"

6.3. Floor-standing storage tank ERSS 300-A, 500 liters

Dimension Sheet ERSS 120–500

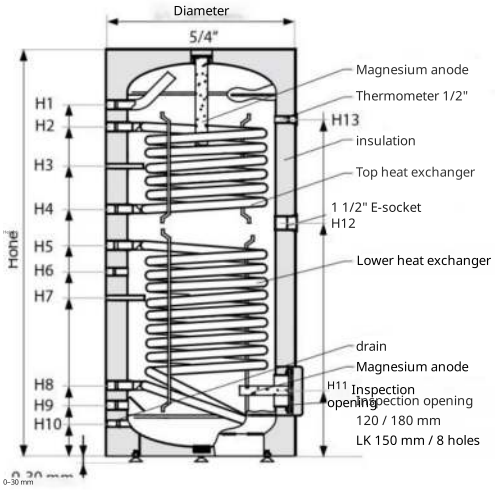


ERSS 300-A, 500, 500-PUR

	Application	Dimension	300-A	500	500–PUR
	Height	with insulation - mm	1825	1990	1950
		without insulation - mm		1850	1850
	Diameter	with insulation - mm	700	830	750
		without insulation - mm		630	630
H1	hot water	Height - mm	1495	1650	1650
		Connection - female thread	1"	1"	1"
H2	Flow Register	Height - mm	775	970	970
		Connection - female thread	1"	1"	1"
H3	circulation	Height - mm	1140	1320	1320
		Connection - Female Thread	3/4"	3/4"	3/4"
H4	Guide sleeve	Height - mm	470	530	530
		Size - mm	11	11	11
H5	RL Register	Height - mm	225	320	320
		Connection - female thread	1"	1"	1"
H6	cold water	Height - mm	135	180	180
		Connection - Female Thread	1"	1"	1"
H7	drain	Height - mm	Available at		
		Connection - female thread		, available	, available
H8	Inspection opening	Height - mm	305	329	329
		Connection Flange - mm	120/180	120/180	120/180
H9	electric heater	Height - mm	835	1030	1030
		Connection - female thread	1 1/2"	1 1/2"	1 1/2"
H10	Thermometer	Height - mm	1475	1570	1570
		Connection - female thread	1/2"	1/2"	1/2"
	Magnesium anode	Height - mm	1825	1970	1970
		Connection - female thread	1 1/4"	1 1/4"	1 1/4"

6.4. ESRS Solar Tanks, 200–400 Liters

Dimension Sheet ESRS 200–500

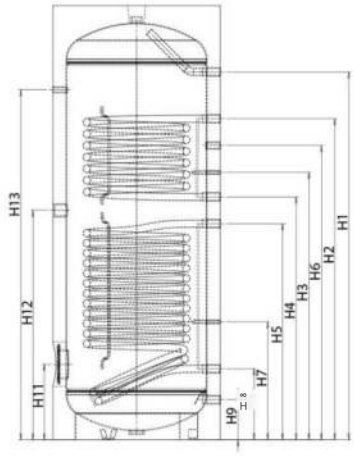


ESRS 200, 200-A, 300, 400, 400-PUR

	Application	Dimensions	200	200-A	300	400	400-PUR
	Height	with insulation - mm	1140	1355	1615	1770	1750
		without insulation - mm				1670	
	Diameter	with insulation - mm	670	670	670	800	750
		without insulation - mm				600	600
H1	hot water	Height - mm	975	1025	1354	1467	1467
		Connection - female thread	1"	1"	1"	1"	1"
H2	flow Top Register	Height - mm	895	945	1187	1327	1327
		Connection - female thread	1"	1"	1"	1"	1"
NZ	sensor sleeve, register at the top	Height - mm	765	820	1017	1152	1152
		Size - mm	11	11	11	11	11
H4	RL Top Mount	Height - mm	635	695	847	977	977
		Connection - female thread	1"	1"	1"	1"	1"
H5	Flow Bottom Register	Height - mm	550	585	737	867	867
		Connection - female thread	1"	1"	1"	1"	1"
H6	circulation	Height - mm	450	485	637	767	767
		Connection - Female Thread	3/4"	3/4"	3/4"	3/4"	3/4"
H7	sensor sleeve, register at the bottom	Height - mm	355	325	432	567	567
		Size - mm	11	11	11	11	11
H8	RL Bottom Register	Height - mm	210	225	267	317	317
		Connection - female thread	1"	1"	1"	1"	1"
H9	cold water	Height - mm	130	140	180	237	237
		Connection - female thread	1"	1"	1"	1"	1"
H10	drain	Height - mm				157	157
		Connection - female thread				1"	1"
H11	Inspection opening	Height - mm	290	305	337	317	317
		Ø - mm	120/180	120/180	120/180	120/180	120/180
H12	electric heater	Height - mm	630	640	805	922	922
		Connection - female thread	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
H13	Thermometer	Height - mm	825	1005	1222	1407	1407
		Connection - female thread	1/2"	1/2"	1/2"	1/2"	1/2"
	Magnesium manonde	Height - mm	1140	1355	1590	1770	1770
		Connection - Female Thread	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"

6.5. ESRS 300-A solar tank, 500 Liters

Dimension Sheet ESRS 200–500



ESRS 300-A, 500, 500-PUR

	Application	Dimension	300-A	500	500-PUR
	Height	with insulation - mm	1825	1970	1950
		without insulation - mm		1850	
	Diameter	with insulation - mm	700	830	750
		without insulation - mm		630	630
H1	hot water	Height - mm	1495	1650	1650
		Connection - female thread	1"	1"	1"
H2	flow Register Top	Height - mm	1255	1439	1439
		Connection - female thread	1"	1"	1"
H3	sensor sleeve, register top	Height - mm	1030	1200	1200
		Size - mm	11	11	11
H4	RL Top Register	Height - mm	895	1090	1090
		Connection - female thread	1"	1"	1"
H5	Flow Register at the bottom	Height - mm	775	970	970
		Connection - female thread	1"	1"	1"
H6	circulation	Height - mm	1140	1320	1320
		Connection - Female Thread	3/4"	3/4"	3/4"
H7	sensor sleeve, register at the bottom	Height - mm	470	530	530
		Dimensions - mm	11	11	11
H8	RL Bottom Register	Height - mm	225	320	320
		Connection - female thread	1"	1"	1"
H9	cold water	Height - mm	135	180	180
		Connection - female thread	1"	1"	1"
H10	drain	Height - mm			
		Connection - female thread			
H11	Inspection opening	Height - mm	305	329	339
		Ø - mm	120/180	120/180	120/180
H12	electric heater	Height - mm	835	1030	1030
		Connection - female thread	1 1/2"	1 1/2"	1 1/2"
H13	Thermometer	Height - mm	1475	1570	1570
		Connection - Female Thread	1/2"	1/2"	1/2"
	Magnesium manonde	Height - mm	1825	1950	1950
		Connection - female thread	1 1/4"	1 1/4"	1 1/4"

7. Notes

8. Address

Juratherm GmbH
4–6 Wilhelm-Busch Street
95447 Bayreuth

Phone: 0921 – 151344-0
Fax: 0921 – 151344-29

Website: www.juratherm.com
Email: info@juratherm.com

9. Product Data Sheet (in accordance with EU Regulation No. 812/2013)

EHRE

1	EN - Supplier's name or trademark	SILVERLINE	
2	EN - Supplier's model identifier	EHRE 120	EHRE 150
3	EN - Energy efficiency class	B	B
4	EN - Standing loss [W]	48	59
5	EN - Storage volume [L]	123	149

ERSS

1	EN - Supplier's name or trademark	SILVERLINE					
2	EN - Supplier's model identifier	ERSS 120	ERSS 140	ERSS 200	ERSS 300	ERSS 400	ERSS 500
3	EN - Energy efficiency class	B	B	B	B	B	B
4	EN - Standing loss [W]	40	50	60	67	68	82
5	EN - Storage volume [L]	114	132	197	309	405	513

ESRS

1	EN - Supplier's name or trademark	SILVERLINE			
2	EN - Supplier's model identifier	ESRS 200	ESRS 300	ESRS 400	ESRS 500
3	EN - Energy efficiency class	B	B	B	B
4	EN - Standing loss [W]	60	67	68	82
5	EN - Storage volume [L]	197	299	395	496

ERSS

1	EN - Supplier's name or trademark	SILVERLINE			
2	EN - Supplier's model identifier	ERSS 400 822400	ERSS 400 822400w	ERSS 500 822500	ERSS 500 822500w
3	EN - Energy efficiency class	B		B	
4	EN - Standing loss [W]	63		65	
5	EN - Storage volume [L]	405		513	

ESRS

1	EN - Supplier's name or trademark	SILVERLINE			
2	EN - Supplier's model identifier	ESRS 400 823400	ESRS 400 823400w	ESRS 500 823500	ESRS 500 823500w
3	EN - Energy efficiency class	B		B	
4	EN - Standing loss [W]	63		65	
5	EN - Storage volume [L]	395		496	