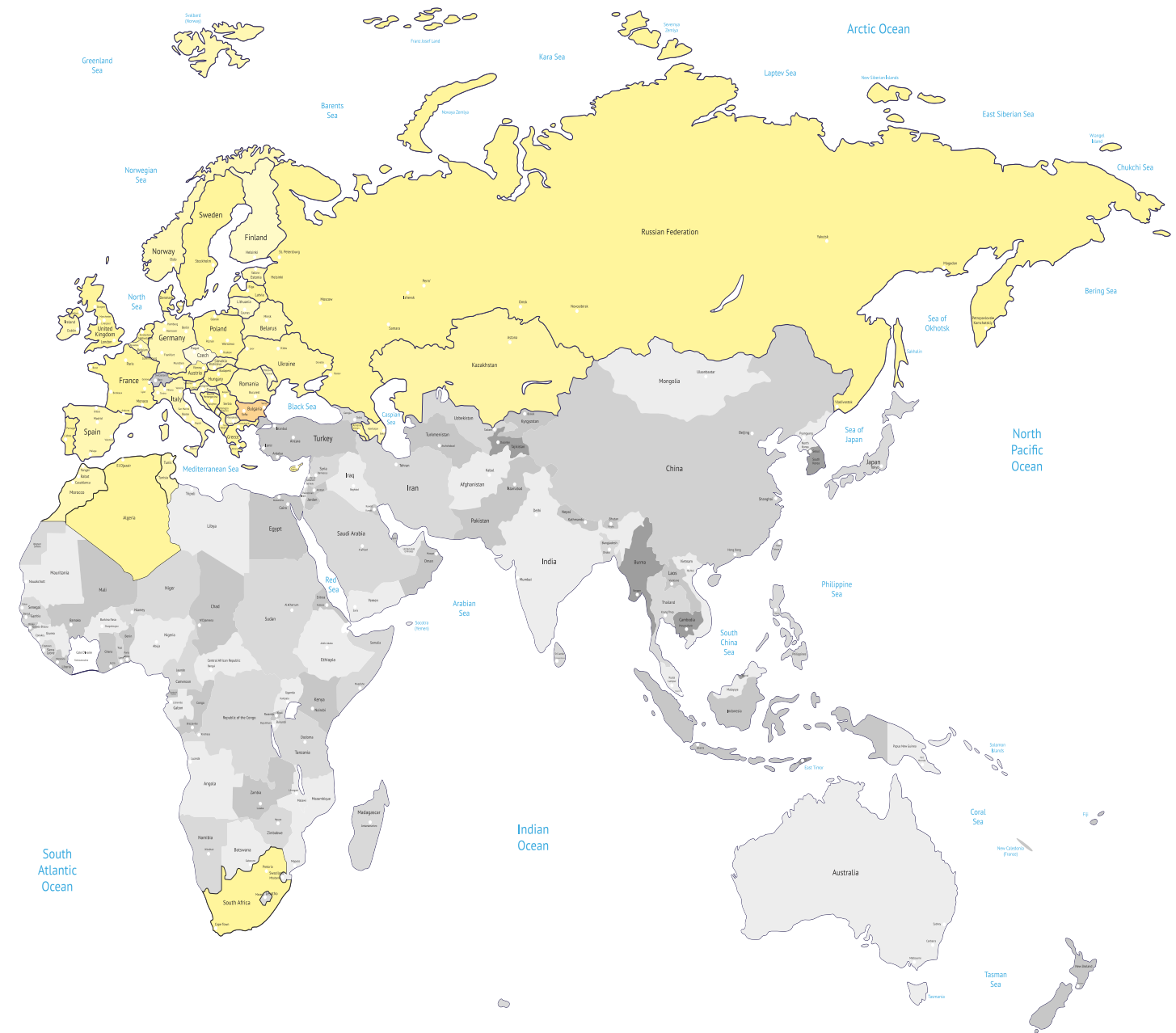
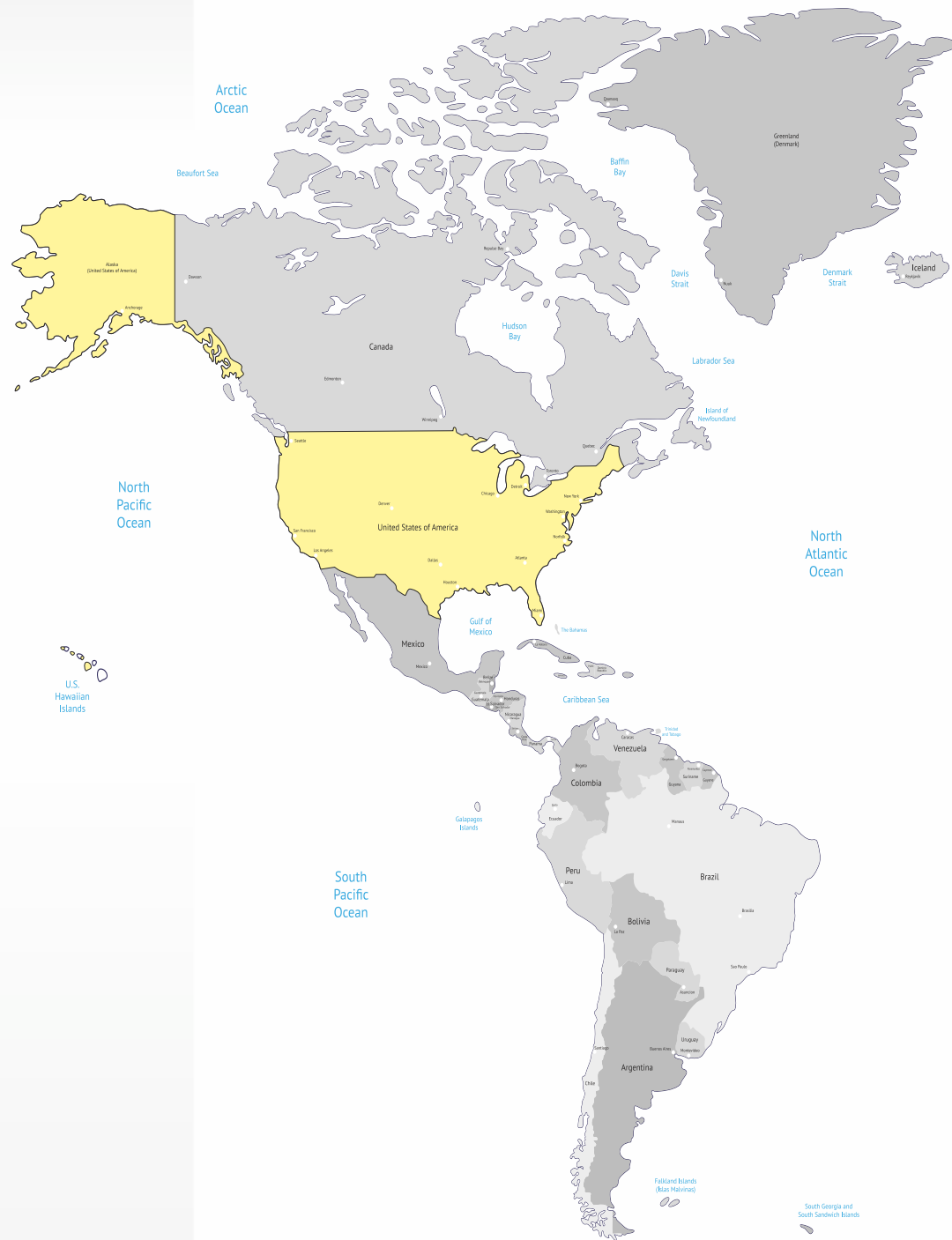


SUNSYSTEM[®]

www.sunsystem.bg

FLOOR STANDING WATER HEATERS

catalogue 2014



Markets:

- | | | |
|------------------------|---------------|----------|
| Algeria | Finland | Norway |
| Albania | France | Poland |
| Armenia | Germany | Portugal |
| Austria | Great Britain | Romania |
| Belarus | Greece | Russia |
| Belgium | Hungary | SAR |
| Bulgaria | Ireland | Serbia |
| Bosnia and Herzegovina | Italy | Slovakia |
| Croatia | Latvia | Slovenia |
| Kosovo | Lithuania | Spain |
| Czech Republic | Macedonia | Sweden |
| Denmark | Montenegro | Tunisia |
| Estonia | Morocco | Ukraine |
| | Moldova | USA |
| | Netherlands | |

Headquarters:

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 9700 Shumen, B U L G A R I A
 office@sunsystem.bg
 www.sunsystem.bg





THE COMPANY

NES - NEW ENERGY SYSTEMS Ltd. is producer of appliances utilizing alternative energy sources.

The company was established in 2002 in Shumen, Bulgaria. Today, the staff amounts to 330 qualified professionals working in facilities of 30 000 sq. m. built up area. All process are governed by QMS ISO 9001:2008.

The production is marketed across Europe, Africa, and South America, and other marketplaces are in the scope of near-future activities.

Most products of NES are designed to utilize alternative energy sources like solar thermal energy, biomass energy and aerothermal energy. These products contribute to sparing the energy reserves of the planet and minimizing the carbon emissions.



- **SOLAR THERMAL**
Solar collectors
Domestic/ Storage / Combi tanks
Buffer tanks
Heat pump heaters
- **PHOTOVOLTAIC**
Photovoltaic modules, accessories
Engineering, Procurement and Construction of photovoltaic plants



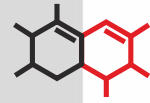
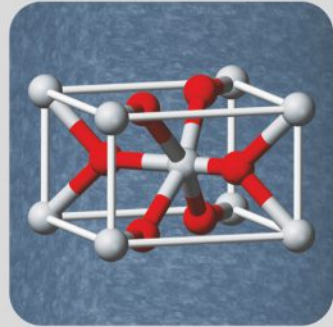
- **BIOMASS HEATING**
Solid fuel boilers
Wood gasifying boilers
Pellet boilers
Combi boilers: wood-pellets/chips or solid fuel
Pellet Burners
Pellet/Wood Stoves



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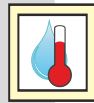
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High efficiency water heaters for heat pump systems SWP series	page 28
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Combi tanks KSC series	page 50
Hygienic combi tanks HYG series HYG B series	page 56 page 62
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Heat pump water heater TDB-C series TDB-A series	page 76 page 82





Titanium Enamel

Hot water is aggressive to steel. In order to protect a water tank from corrosion it needs to be isolated from the hot water in it. All SUNSYSTEM water tanks are tightly covered with titanium enamel on the inside. It is then baked to produce a smooth and uniform deposition-free glazing. Thus the domestic hot water remains clean, and the water tank is protected against corrosion.



Insulation

The quality of the insulation of a water heater is a key factor for its heat conservation capability and energy efficiency. All SUNSYSTEM floor standing water heaters with capacity of up to 500 l are furnished with BASF brand rigid PU with thickness 50 mm; all water heaters in greater volumes as well as all buffers and combi tanks come with removable 100 mm thick soft PU casing.



Materials

All SUNSYSTEM appliances are produced from select materials of ultimate grades to provide for best product performance and longevity. We source our materials and components from qualified suppliers, with verified quality by reputable certification institutions.



Renewable Energy Enabled

Many of the SUNSYSTEM water tanks are renewable energy enabled. They employ both indirect and direct heating and may be used with heat derived from renewable energy sources. Go for renewable energy to cut down on your monthly costs and do your part to help reduce carbon dioxide emissions.

Cathodic Protection



The sacrificial anode protectors built in the SUNSYSTEM water heaters provide secondary protection against corrosion of the water tank in all carbon-steel models. The anode protector acts against corrosion in three different ways simultaneously:

- Decreases the electric potential by means of electro-galvanic polarization.
- Creates a protective film on the metal surface and thus protects it from contact with the water.
- Absorbs the oxygen from water, thus rendering it harmless.



Electric heating kit



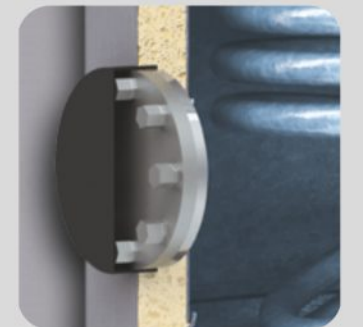
All SUNSYSTEM tanks may be optionally equipped with an electric heating kit as a backup heat source. The electric heating kit comprises of one or more electric heaters and a thermostat with thermal protection. The thermostat may be adjusted by the user within the range 30°C ÷ 80°C, and the thermal protection would go off in case the water reaches 95°C.



Inspection opening



Large and convenient inspection opening located in the lower part of the tank gives access for maintenance and cleaning. The opening is closed by an enameled flange cover which may have a sleeve for fitting electric heater if necessary.



Heat Exchangers



The SUNSYSTEM brand tanks are available in single- and double-coil executions that enable the appliance to utilize heat from external sources of energy such as solar system, biomass burning boiler, heat pump, etc. All heat exchangers are engineered with large heat transfer surface to ensure ultimate efficiency.



S series

Floor standing water heaters

models:



SEL water heater without coil



SN one coil water heater



SON double coil water heater

for direct/indirect heating;
suitable for solar or/and space-heating systems

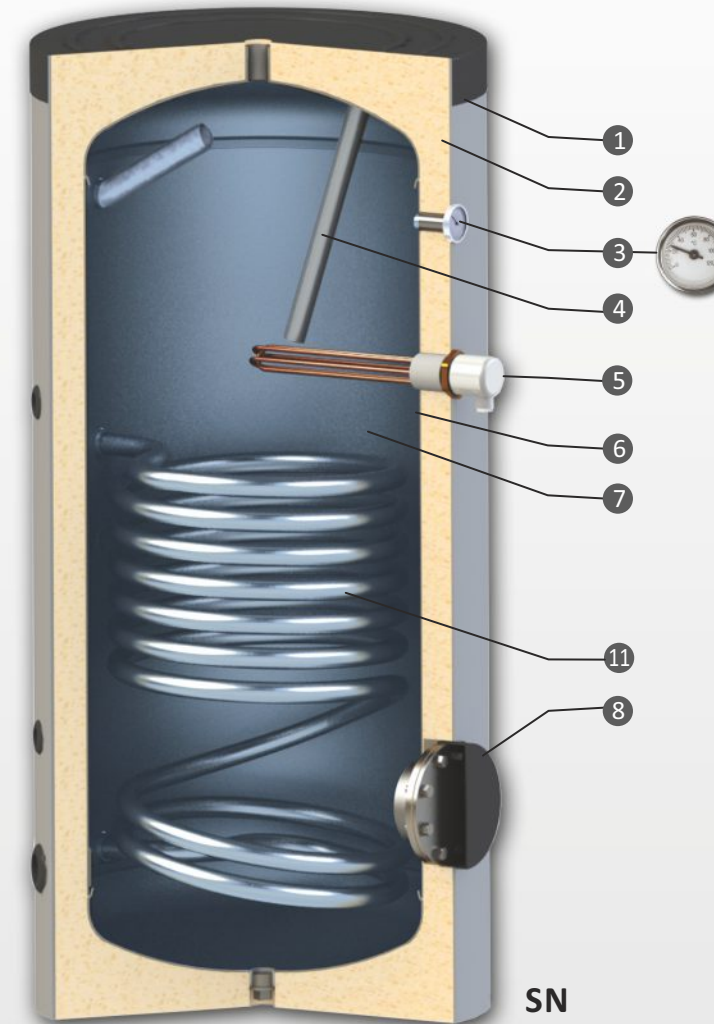
Product features:

- High efficiency insulation and outer casing of PVC with RAL 9006 color.
- Multi-position mounting of temperature sensor.
- Complex corrosion protection realized by means of titanium enamel and anode protection.
- All threads are internal.
- Easy installation.
- Convenient inspection opening.
- Available modifications with vertical and horizontal orientation.
- The heat exchanger/s (SN / SON) enables the tank to utilize an external sources of renewable energy, such as a solar system and a biomass boiler.
- Optional kit for electric heating with nominal power 3kW, 4.5kW, 6kW or 7.5kW.

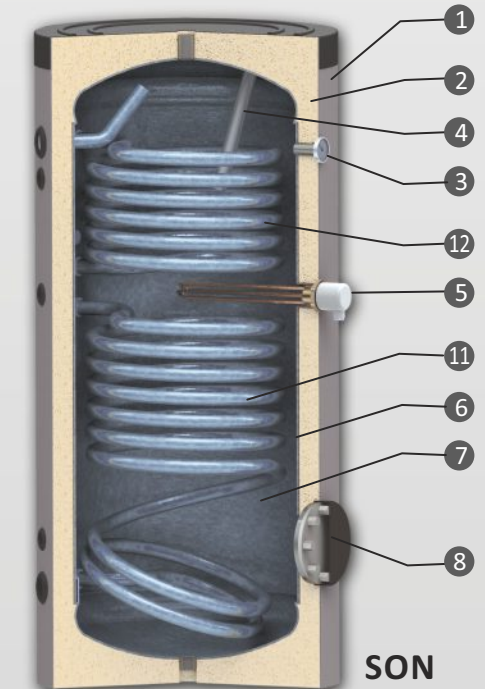
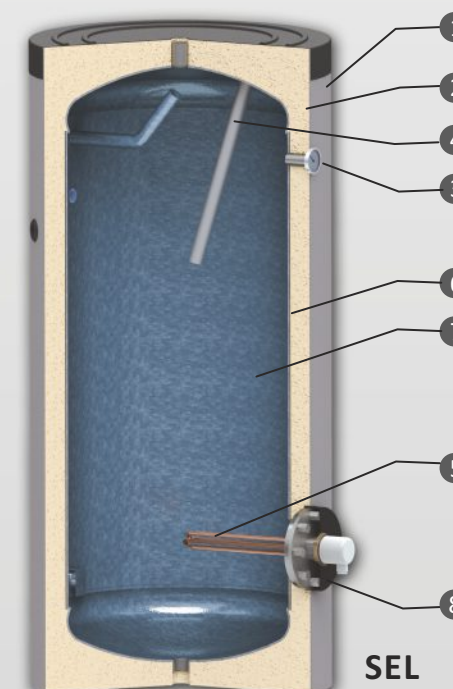
Modifications and sizes:

SEL	V	150	200	300	400	500	750	1000	1500
	H	150	200	300	400	500	750	1000	1500
SN	V	150	200	300	400	500	750	1000	1500
	H	150	200	300	400	500	750	1000	1500
SON	V	150	200	300	400	500	750	1000	1500
	H			300	400	500	750	1000	1500

SUNSYSTEM®



1. Aesthetic PVC jacket with color RAL 9006
2. Highly efficient thermal insulation
3. Thermometer
4. Anode protector (DIN 4753-6)
5. Electric heating element
6. Water tank of low-carbon steel
7. Titanium enamel (DIN 4753-3)
8. Inspection opening with flange cover
9. Thermostat with integrated thermal protection
10. Safety valve, 8 bar
11. Lower coil (SN /SON)
12. Upper coil (SON)



S series

technical specifications
vertical modifications
SEL

SUNSYSTEM®

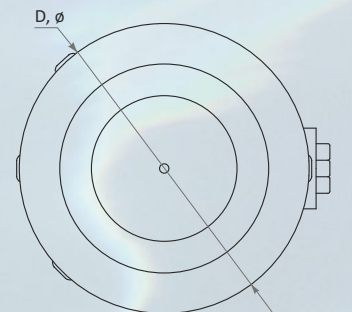
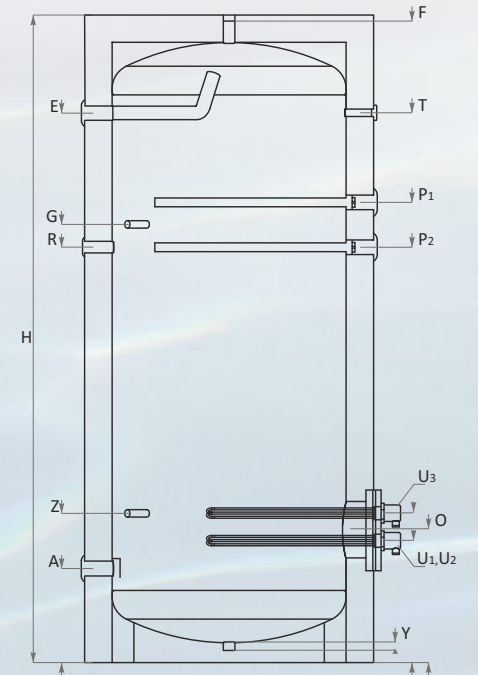
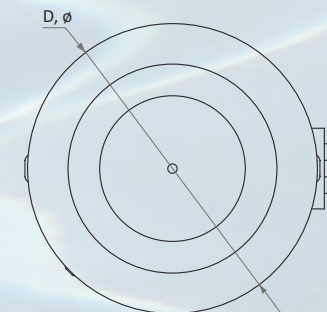
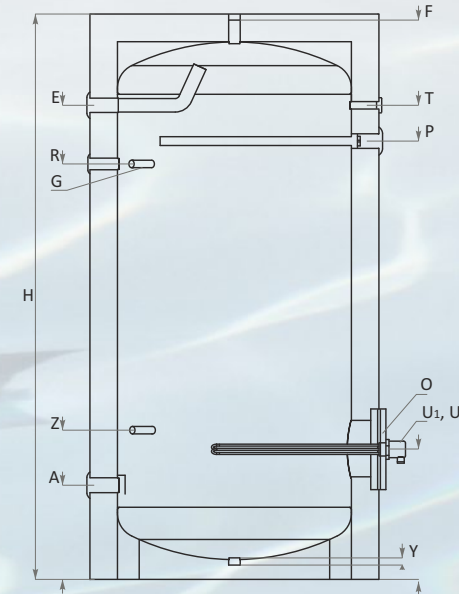
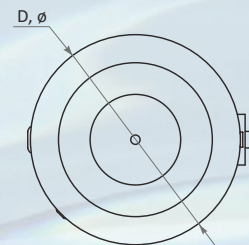
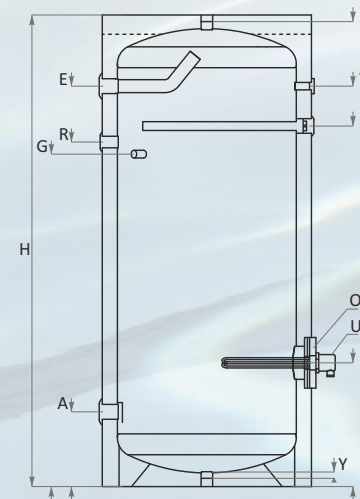
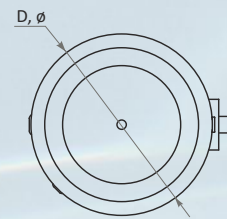
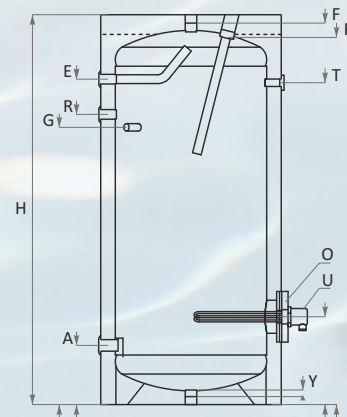


		SEL 150	SEL 200	SEL 300	SEL 400	SEL 500	SEL 750	SEL 1000	SEL 1500
Capacity	l	150	200	300	400	500	750	1000	1500
Height H / Min. vertical clearance	mm	1080/1210	1350/1460	1420/1580	1470/1670	1720/1890	2010/2030	2060/2080	2310/2370
Diameter D	mm	ø 560	ø 560	ø 660	ø 750	ø 750	ø 950	ø 1050	ø 1050
Insulation		50 mm rigid PU			50 mm rigid PU		100 mm soft PU, removable		100 mm soft PU, removable
Oper. pressure / max. temperature	bar/°C	10/95	10/95	10/95	10/95	10/95	10/95	10/95	10/95
Test pressure of tank	bar	15	15	15	15	15	15	15	15
Thermometer		✓	✓	✓	✓	✓	✓	✓	✓
Anode protector		✓	✓	✓	✓	✓	✓	✓	✓
Electric heating element (optional)	kW	3÷7,5	3÷7,5	3÷7,5	3÷7,5	3÷7,5	3÷7,5	2x7,5	3x7,5
Weight	kg	50	68	86	123	140	210	245	284

S series

technical specifications
vertical modifications
SEL

SUNSYSTEM®



		SEL 150	SEL 200	SEL 300	SEL 400	SEL 500	SEL 750	SEL 1000	SEL 1500
Cold water inlet	A, mm	G1"/202	G1"/202	G1"/215	G1¼"/270	G1½"/270	G1½"/300	G1"/330	G1"/330
Sensor sleeve for thermostat	G, mm	G½"/822	G½"/892	G½"/1010	G½"/950	G½"/1208	G½"/1405	G½"/1497	G½"/1497
Recirculation	R, mm	G¾"/450	G¾"/500	G¾"/663	G¾"/673	G¾"/940	G1"/1405	G1"/1497	G1"/1497
Hot water outlet	E, mm	G1"/868	G1"/1138	G1"/1170	G1¼"/1204	R1½"/1453	G1½"/1630	G1½"/1710	G1½"/1985
Air vent sleeve	F, mm	G1"/1070	G1"/1340	G1"/1410	G1"/1460	G1"/1710	G1"/2000	G1"/2050	G1"/2330
Inspection opening	O ø mm	110/180 309	110/180 309	110/180 320	110/180 450	110/180 450	200/280 450	200/280 470	200/280 470
Drain sleeve	Y, mm	G1"/20	G1"/20	G1"/20	G1"/20	G1"/20	G1"/20	G1"/20	G1"/20
Thermometer	T, mm	G½"/822	G½"/892	G½"/897	G½"/950	G½"/1168	G½"/1435	G½"/1497	G½"/1497
Anode protector	P, mm	G1¼"/1070	G1¼"/1340	G1¼"/1410	G1¼"/1079	G1¼"/1340	G1¼"/1435	G1¼"/1580	G1¼"/1580, 1660
Electric heating element	U, mm	G1½"/309	G1½"/309	G1½"/320	G1½"/450	G1½"/450	G1½"/450	G1½"/470	G1½"/436, 537
Additional sensor sleeve	Z, mm						G½"/535	G½"/530	G½"/530

S series

technical specifications
vertical modifications
SN

SUNSYSTEM®

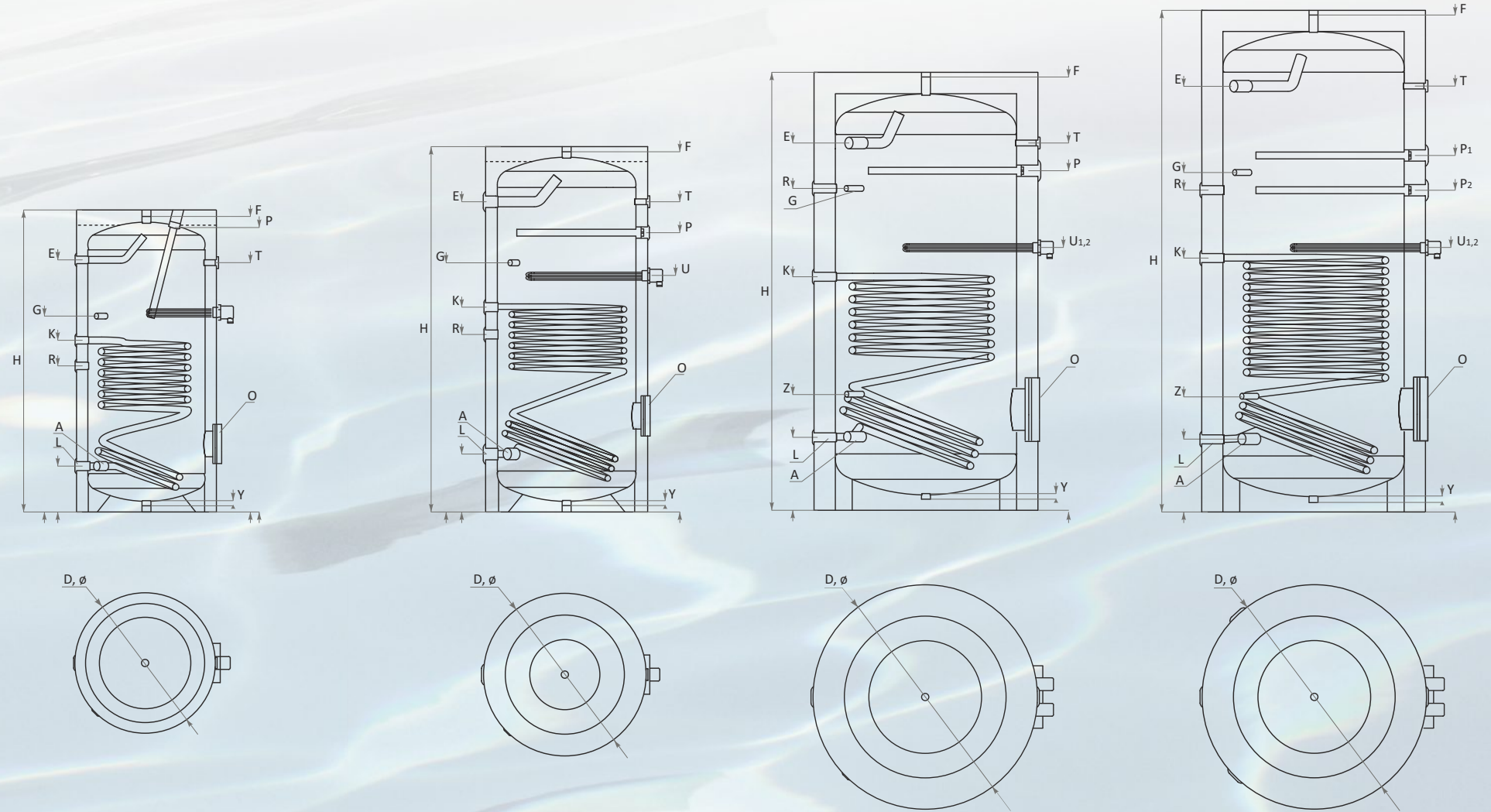


		SN 150	SN 200	SN 300	SN 400	SN 500	SN 750	SN 1000	SN 1500
Capacity	l	150	200	300	400	500	750	1000	1500
Height H / Min. vertical clearance	mm	1070/1210	1340/1460	1420/1580	1470/1670	1720/1890	2000/2030	2050/2070	2310/2370
Diameter D	mm	ø 560	ø 560	ø 660	ø 750	ø 750	ø 950	ø 1050	ø 1050
Insulation		50 mm rigid PU			50 mm rigid PU		100 mm soft PU, removable		100 mm soft PU, removable
Operating pressure / max. temperature	bar/°C	10/95	10/95	10/95	10/95	10/95	10/95	10/95	10/95
Test pressure of tank	bar	15	15	15	15	15	15	15	15
Heat exchange surface	m ²	0.74	0.9	1.2	1.5	1.8	2.1	2.7	3
Coil capacity	l	4.56	5.55	7.40	9.25	11.10	12.95	16.65	18.50
Prolonged power acc. to DIN 4708; 80/60/45 °C	kW m ³ /h	25 0.61	29 0.71	53 1.30	62 1.52	72 1.77	80 1.97	105 2.58	131 3.22
NL – power coefficient at 60°C		2.5	4.5	11	13	18	32	42	64
Pressure drop Δp	mbar	65	75	120	180	210	210	260	310
Oper. pressure / max. coil temperature	bar/°C	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110
Test pressure	bar	25	25	25	25	25	25	25	25
Thermometer		✓	✓	✓	✓	✓	✓	✓	✓
Anode protector		✓	✓	✓	✓	✓	✓	✓	✓
Electric heater (optional)	kW	3÷7,5	3÷7,5	3÷7,5	3÷7,5	3÷7,5	3÷7,5	2x7,5	3x7,5
Weight	kg	59	73	104	145	167	242	286	329

Heat exchanger coil

S series

technical specifications
vertical modifications
SN



		SN 150	SN 200	SN 300	SN 400	SN 500	SN 750	SN 1000	SN 1500
Coil outlet	L, mm	G1"/202	G1"/202	G1"/215	G1"/270	G1"/270	G1"/300	G1"/330	G1"/330
Cold water inlet	A, mm	G1"/202	G1"/202	G1"/215	G1½"/270	G1½"/270	G1½"/300	G1"/330	G1"/330
Sensor sleeve for thermostat	G, mm	G½"/822	G½"/892	G½"/1010	G½"/950	G½"/1208	G½"/1405	G½"/1497	G½"/1497
Recirculation	R, mm	G¾"/450	G¾"/500	G¾"/663	G¾"/673	G¾"/940	G1"/1405	G1"/1497	G1"/1497
Coil inlet	K, mm	G1"/592	G1"/692	G1"/805	G1"/850	G1"/960	G1"/970	G1"/1080	G1"/1180
Hot water outlet	E, mm	G1"/868	G1"/1138	G1"/1170	G1½"/1204	G1½"/1453	G1½"/1630	G1½"/1710	G1½"/1985
Air vent sleeve	F, mm	G1"/1070	G1"/1340	G1"/1410	G1"/1460	G1"/1710	G1"/2000	G1"/2050	G1"/2330
Inspection opening	O, mm	110/180 309	110/180 309	110/180 320	110/180 450	110/180 450	200/280 450	200/280 470	200/280 470
Drain sleeve	Y, mm	G1"/20	G1"/20	G1"/20	G1"/20	G1"/20	G1"/20	G1"/20	G1"/20
Thermometer	T, mm	G½"/822	G½"/892	G½"/897	G½"/950	G½"/1168	G½"/1435	G½"/1497	G½"/1497
Anode protector	P, mm	G1½"/1070	G1½"/1340	G1½"/1410	G1½"/1079	G1½"/1340	G1½"/1435	G1½"/1580	G1½"/1580, 1660
Electric heating element*	U, mm	G1½"/780	G1½"/810	G1½"/950	G1½"/900	G1½"/1130	G1½"/1035	G1½"/1145	G1½"/1220
Additional sensor sleeve	Z, mm						G½"/535	G½"/530	G½"/530

*Electric heating element mounting option: on inspection opening flange

S series

technical specifications
vertical modifications
SON

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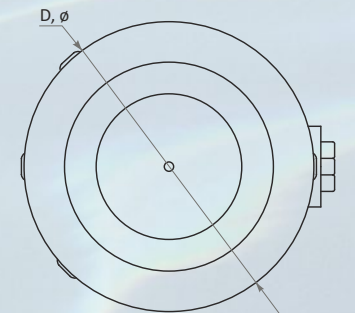
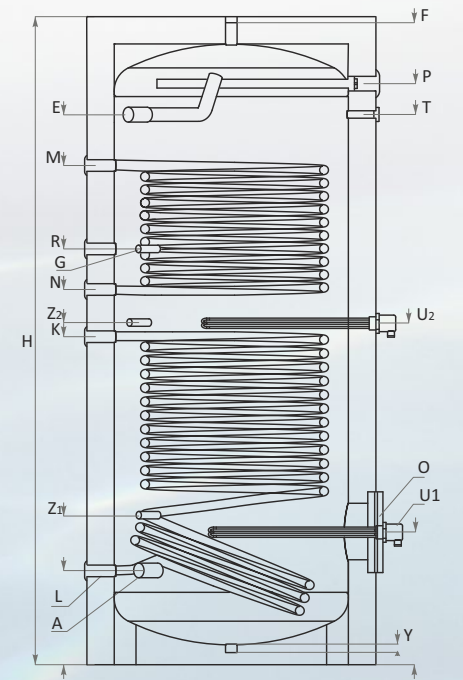
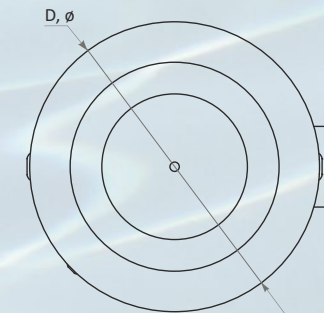
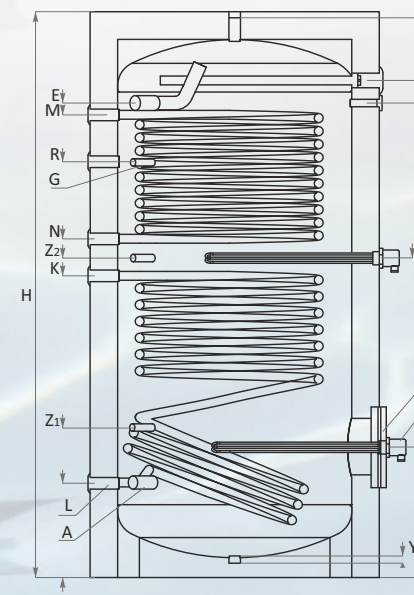
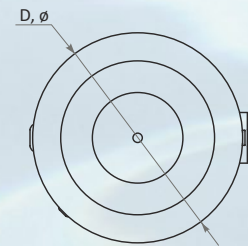
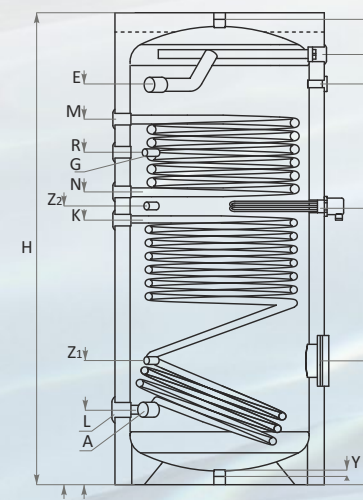
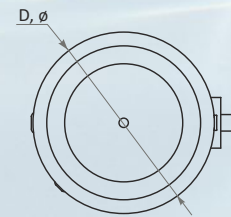
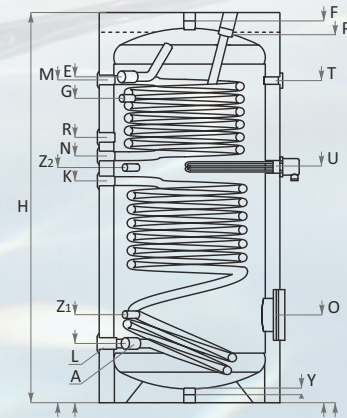
		SON 150	SON 200	SON 300	SON 400	SON 500	SON 750	SON 1000	SON 1500
Capacity	l	150	200	300	400	500	750	1000	1500
Height H / Min. vertical clearance	mm	1070/1210	1340/1460	1420/1580	1470/1670	1720/1890	2000/2030	2050/2070	2310/2370
Diameter D	mm	ø 560	ø 560	ø 660	ø 750	ø 750	ø 950	ø 1050	ø 1050
Insulation		50 mm rigid PU			50 mm rigid PU		100 mm soft PU, removable		100 mm soft PU, removable
Operating pressure / max. temperature	bar/°C	10/95	10/95	10/95	10/95	10/95	10/95	10/95	10/95
Test pressure of tank	bar	15	15	15	15	15	15	15	15
Heat exchange surface S1/S2	m²	0.74/0.4	0.9/0.6	1.2/0.9	1.5/1	1.8/1.2	2.1/1.4	2.7/1.9	3/2.5
Coil capacity S1/S2	l	4.56/2.47	5.55/3.70	7.40/5.55	9.25/6.17	11.10/7.40	12.95/8.63	16.65/11.72	18.50/15.42
Prolonged power acc. to DIN 4708; 80/60/45 °C, S1/S2	kW m³/h	25/15 0.61/0.37	29/18 0.71/0.44	53/21 1.30/0.52	62/27 1.52/0.66	72/34 1.77/0.84	80/50 1.97/1.23	105/32 2.58/1.52	131/74 3.22/1.82
NL – power coeff.at 60°C, S1/S2		2.5/1	4.5/1.5	11/2	13/2.2	18/2.8	32/10	42/28	64/34
Pressure drop Δp, S1/S2	mbar	65/48	75/55	120/70	180/80	210/90	210/150	260/210	310/260
Oper. pressure / max. coil temperature	bar/°C	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110
Test pressure	bar	25	25	25	25	25	25	25	25
Thermometer		✓	✓	✓	✓	✓	✓	✓	✓
Anode protector		✓	✓	✓	✓	✓	✓	✓	✓
Electric heater (optional)	kW	3÷7,5	3÷7,5	3÷7,5	3÷7,5	3÷7,5	3÷7,5	2x7.5	3x7.5
Weight	kg	65	82	118	160	185	263	315	367

Lower S1 / Upper S2 Heat exch. coil

S series

technical specifications
vertical modifications
SON

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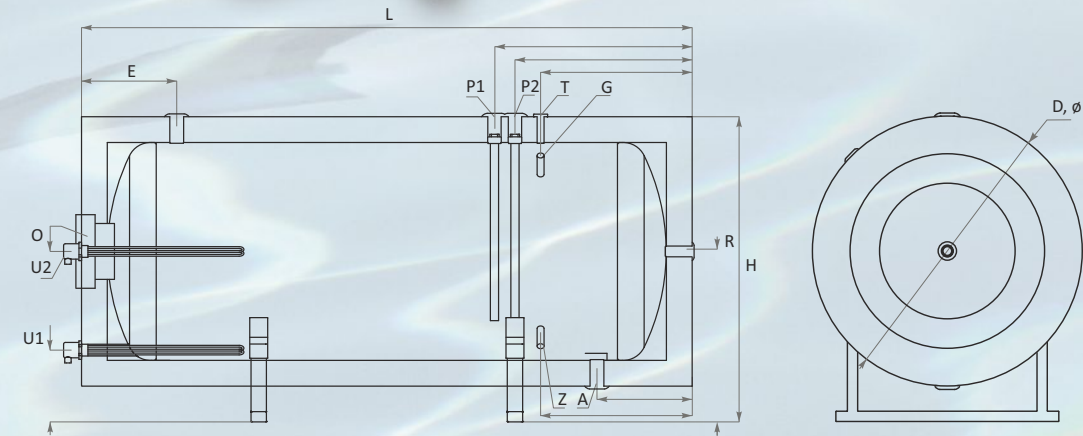
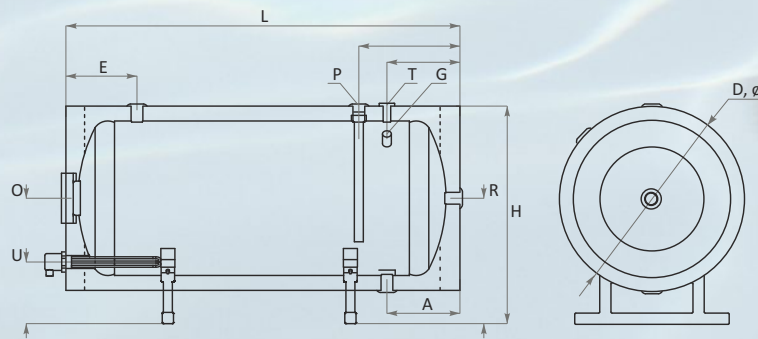
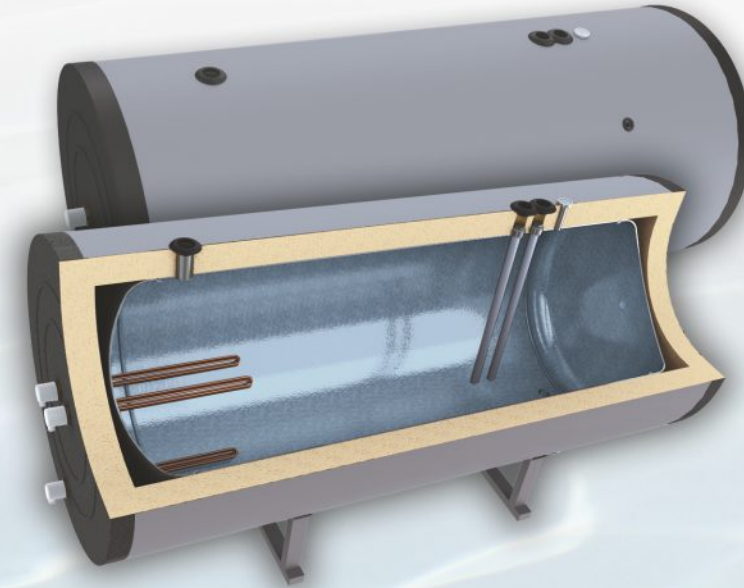
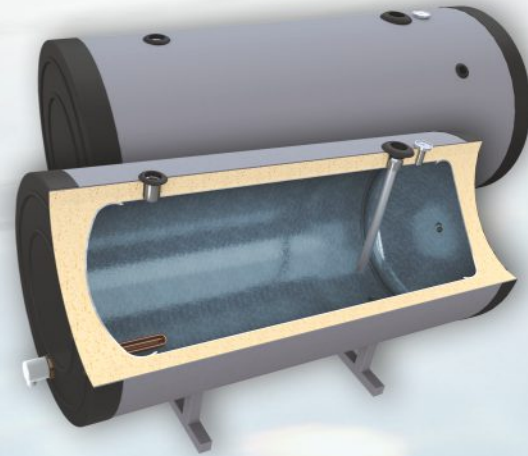


		SON 150	SON 200	SON 300	SON 400	SON 500	SON 750	SON 1000	SON 1500
Lower coil outlet S1	L, mm	G1"/202	G1"/202	G1"/215	G1"/270	G1"/270	G1"/300	G1"/330	G1"/330
Cold water inlet	A, mm	G1"/202	G1"/202	G1"/215	G1½"/270	G1½"/270	G1½"/300	G1½"/330	G1"/330
Sensor sleeve for thermostat	G, mm	G½"/788	G½"/1037	G½"/1104	G½"/1054	G½"/1206	G½"/1435	G½"/1497	G½"/1497
Lower coil inlet S1	K, mm	G1"/592	G1"/692	G1"/805	G1"/850	G1"/960	G1"/970	G1"/1080	G1"/1180
Recirculation	R, mm	G½"/788	G¾"/987	G¾"/1007	G1"/1105	G1"/1206	G1"/1405	G1"/1497	G1"/1497
Upper coil outlet S2	N, mm	G1"/674	G1"/812	G1"/894	G1"/952	G1"/1062	G1"/1160	G1"/1220	G1"/1350
Upper coil inlet S2	M, mm	G1"/874	G1"/1112	G1"/1170	G1"/1210	G1"/1350	G1"/1560	G1"/1670	G1"/1800
Hot water outlet	E, mm	G1"/894	G1"/1168	G1"/1182	G1½"/1240	G1½"/1453	G1½"/1630	G1½"/1710	G1½"/1985
Air vent sleeve	F, mm	G1"/1070	G1"/1340	G1"/1410	G1"/1460	G1"/1710	G1"/2000	G1"/2050	G1"/2330
Inspection opening	O ø mm	110/180 309	110/180 309	110/180 320	110/180 450	110/180 450	200/280 450	200/280 470	200/280 470
Drain sleeve	Y, mm	G1"/20	G1"/20	G1"/20	G1"/20	G1"/20	G1"/20	G1"/20	G1"/20
Thermometer	T, mm	G½"/822	G½"/892	G½"/897	G½"/950	G½"/1168	G½"/1435	G½"/1497	G½"/1497
Anode protector	P, mm	G1½"/1070	G1½"/1340	G1½"/1410	G1½"/1318	G1½"/1568	G1½"/1768	G1½"/1798	G1½"/2082
Electric heating element	U, mm	G1½"/645	G1½"/752	G1½"/852	G1½"/901	G1½"/1011	G1½"/1040	G1½"/470, 1150	G1½"/470, 1230
Additional sensor sleeve	Z, mm	G½"/352 G½"/631	G½"/302 G½"/752	G½"/320 G½"/852	G½"/450 G½"/901	G½"/450 G½"/1011	G½"/535 G½"/1040	G½"/530 G½"/1150	G½"/530 G½"/1230

S series

technical specifications
horizontal modifications
H SEL

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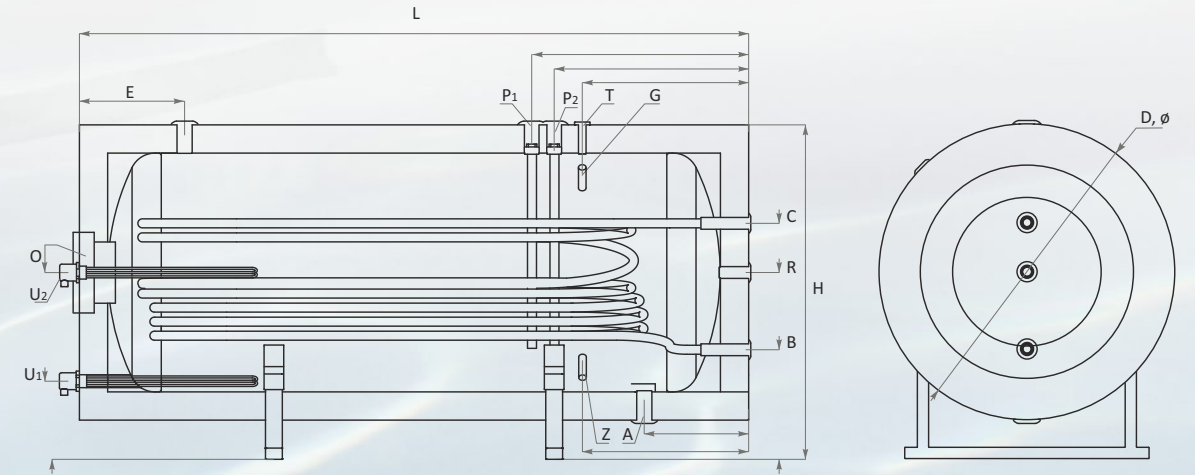
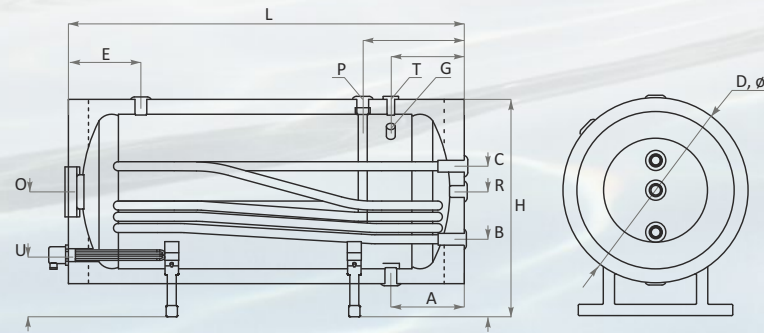
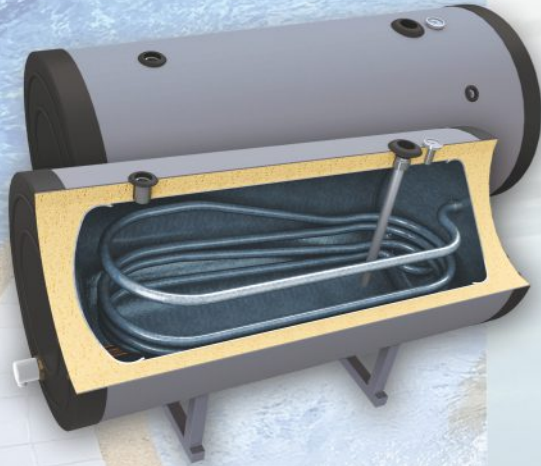


		H SEL 150	H SEL 200	H SEL 300	H SEL 400	H SEL 500	H SEL 750	H SEL 1000	H SEL 1500
Capacity	l	150	200	300	400	500	750	1000	1500
Height H/Length L	mm	695/1070	695/1340	790/1410	890/1460	890/1710	1090/ 2050	1190/2080	1190/2380
Diameter D	mm	ø 560	ø 560	ø 660	ø 750	ø 750	ø 950	ø 1050	ø 1050
Insulation		50 mm rigid PU			50 mm rigid PU		100 mm soft PU, removable		100 mm soft PU, removable
Oper. pressure / max. temperature	bar/°C	10/95	10/95	10/95	10/95	10/95	10/95	10/95	10/95
Test pressure of tank	bar	15	15	15	15	15	15	15	15
Electric heater (optional)	kW	3÷7,5	3÷7,5	3÷7,5	3÷7,5	3÷7,5	3÷7,5	2x7.5	3x7.5
Weight	kg	50	68	86	123	140	210	245	284
Cold water inlet	A, mm	G1"/220	G1"/220	G1"/260	G1½"/270	G1½"/270	G1½"/370	G1½"/370	G1½"/370
Sensor sleeve for thermostat	G, mm	G½"/220	G½"/220	G½"/260	G½"/270	G½"/270	G½"/370	G½"/370	G½"/590
Recirculation	R, mm	G1"/420	G1"/420	G1"/465	G1"/515	G1"/515	G1"/615	G1"/665	G1"/665
Hot water outlet	E, mm	G1"/220	G1"/220	G1"/260	G1½"/270	G1½"/270	G1½"/370	G1½"/370	G1½"/370
Inspection opening	O ø mm	110/180 420	110/180 420	110/180 465	110/180 515	110/180 515	200/280 615	200/280 665	200/280 665
Thermometer	T, mm	G½"/220	G½"/220	G½"/260	G½"/270	G½"/270	G½"/370	G½"/370	G½"/590
Anode protector	P, mm	G1½"/320	G1½"/320	G1½"/360	G1½"/370	G1½"/370	G1½"/470	G1½"/470	G1½"/690,770
Electric heating element	U, mm	G1½"/195	G1½"/195	G1½"/238	G1½"/245	G1½"/245	G1½"/280	G1½"/280; 665	G1½"/280; 665
Additional sensor sleeve	Z, mm							G½"/370	G½"/590

S series

technical specifications
horizontal modifications
H SN

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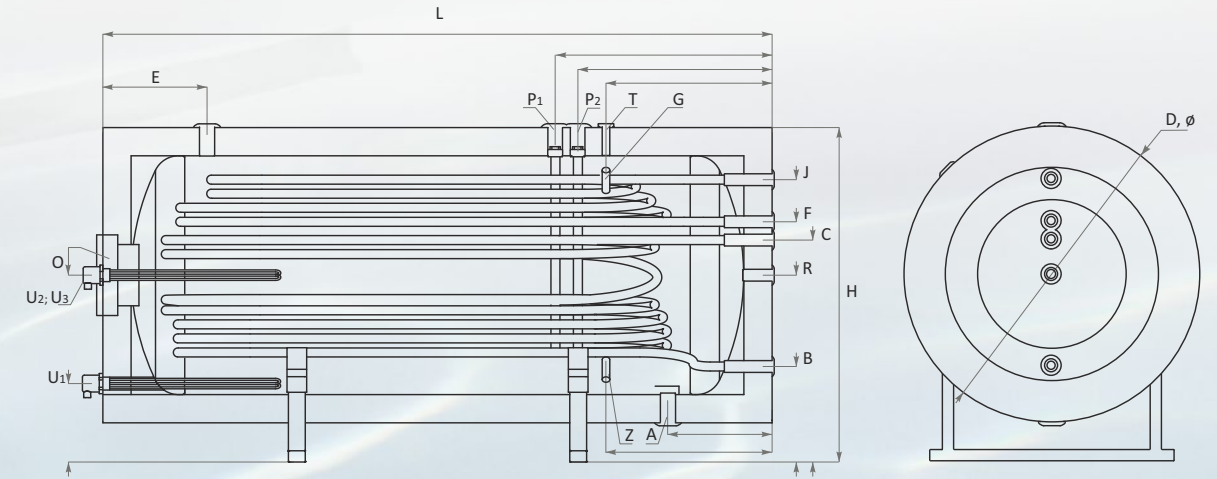
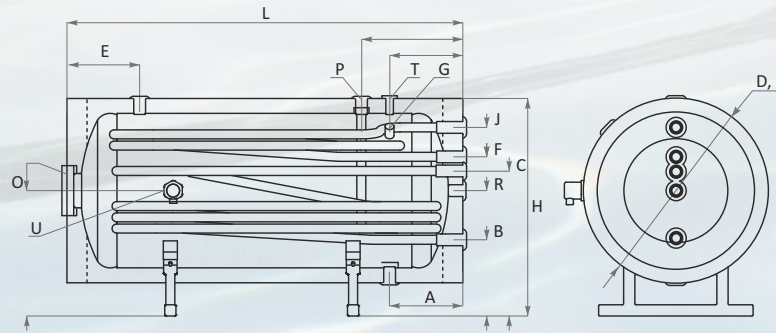
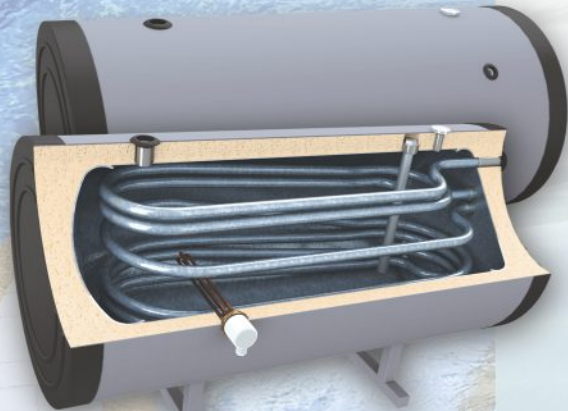


		H SN 150	H SN 200	H SN 300	H SN 400	H SN 500	H SN 750	H SN 1000	H SN 1500	
Heat exchanger coil	Capacity	l	150	200	300	400	500	750	1000	1500
	Height H/Length L	mm	695/1070	695/1340	790/1410	890/1460	890/1710	1090/2050	1190/2080	1190/2380
	Diameter D	mm	ø 560	ø 560	ø 660	ø 750	ø 750	ø 950	ø 1050	ø 1050
	Insulation		50 mm rigid PU			50 mm rigid PU		100 mm soft PU, removable		100 mm soft PU, removable
	Oper. pressure / max. temperature	bar/°C	10/95	10/95	10/95	10/95	10/95	10/95	10/95	10/95
	Test pressure of tank	bar	15	15	15	15	15	15	15	15
	Heat exchange surface	m ²	0.74	0.9	1.2	1.5	1.8	2.1	2.7	3
	Coil capacity	l	4.56	5.55	7.40	9.25	11.10	12.95	16.65	18.50
	Prolonged power acc. to DIN 4708; 80/60/45 °C	kW m ³ /h	25 0.61	29 0.71	53 1.30	62 1.52	72 1.77	80 1.97	105 2.58	131 3.22
	NL – power coefficient at 60°C		2.5	4.5	11	13	18	32	42	64
	Pressure drop Δp	mbar	65	75	120	180	210	210	260	310
	Oper. pressure / max. coil temperature	bar/°C	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110
	Test pressure	bar	25	25	25	25	25	25	25	25
	Electric heater (optional)	kW	3÷7,5	3÷7,5	3÷7,5	3÷7,5	3÷7,5	3÷7,5	2x7,5	3x7,5
	Weight	kg	59	73	104	145	167	242	286	329
	Cold water inlet	A, mm	G1"/220	G1"/220	G1"/260	G1½"/270	G1½"/270	G1½"/370	G1½"/370	G1½"/370
	Sensor sleeve for thermostat	G, mm	G½"/220	G½"/220	G½"/260	G½"/270	G½"/270	G½"/370	G½"/370	G½"/590
	Coil outlet	B, mm	G1"/275	G1"/275	G1"/290	G1"/325	G1"/325	G1"/340	G1"/390	G1"/390
	Recirculation	R, mm	G1"/420	G1"/420	G1"/465	G1"/515	G1"/515	G1"/615	G1"/665	G1"/665
	Coil inlet	C, mm	G1"/525	G1"/525	G1"/550	G1"/585	G1"/585	G1"/740	G1"/840	G1"/840
Hot water outlet	E, mm	G1"/220	G1"/220	G1"/260	G1½"/270	G1½"/270	G1½"/370	G1½"/370	G1½"/370	
Inspection opening	O ø mm	110/180 420	110/180 420	110/180 465	110/180 515	110/180 515	200/280 615	200/280 665	200/280 665	
Thermometer	T, mm	G½"/220	G½"/220	G½"/260	G½"/270	G½"/270	G½"/350	G½"/370	G½"/590	
Anode protector	P, mm	G1½"/320	G1½"/320	G1½"/360	G1½"/370	G1½"/370	G1½"/470	G1½"/470	G1½"/690; 770	
Electric heating element	U, mm	G1½"/195	G1½"/195	G1½"/238	G1½"/245	G1½"/245	G1½"/280	G1½"/280; 665	G1½"/280; 665	
Additional sensor sleeve	Z, mm						G½"/370	G½"/370	G½"/590	

S series

technical specifications
horizontal modifications
H SON

SUNSYSTEM®



		H SON 300	H SON 400	H SON 500	H SON 750	H SON 1000	H SON 1500
Capacity	l	300	400	500	750	1000	1500
Height H/Length L	mm	790/1410	890/1460	890/1710	1090/2050	1190/2080	1190/2380
Diameter D	mm	ø 660	ø 750	ø 750	ø 950	ø 1050	ø 1050
Insulation		50 mm rigid PU	50 mm rigid PU		100 mm soft PU, removable		100 mm soft PU, removable
Oper. pressure / max. temperature	bar/°C	10/95	10/95	10/95	10/95	10/95	10/95
Test pressure of tank	bar	15	15	15	15	15	15
Heat exchange surface S1/S2	m ²	1.2/0.9	1.5/1	1.8/1.2	2.1/1.4	2.7/1.9	3/2.5
Coil capacity S1/S2	l	7.40/5.55	9.25/6.17	11.10/7.40	12.95/8.63	16.65/11.72	18.50/15.42
Prolonged power acc. to DIN 4708; 80/60/45 °C, S1/S2	kW m ² /h	53/21 1.30/0.52	62/27 1.52/0.66	72/34 1.77/0.84	80/50 1.97/1.23	105/32 2.58/1.52	131/74 3.22/1.82
NL – power coeff. at 60°C, S1/S2		11/2	13/2.2	18/2.8	32/10	42/28	64/34
Pressure drop Δp, S1/S2	mbar	120/70	180/80	210/90	210/150	260/210	310/260
Oper. pressure / max. coil temperature	bar/°C	16/110	16/110	16/110	16/110	16/110	16/110
Test pressure	bar	25	25	25	25	25	25
Electric heater (optional)	kW	3÷7,5	3÷7,5	3÷7,5	3÷7,5	2x7,5	3x7,5
Weight	kg	118	160	185	263	315	367
Cold water inlet	A, mm	G1"/260	G1½"/270	G1½"/270	G1½"/370	G1½"/370	G1½"/370
Sensor sleeve for thermostat	G, mm	G½"/260	G½"/270	G½"/270	G½"/370	G½"/370	G½"/590
Lower coil outlet S1	B, mm	G1"/290	G1"/325	G1"/325	G1"/340	G1"/340	G1"/340
Recirculation	R, mm	G1"/465	G1"/515	G1"/515	G1"/615	G1"/665	G1"/665
Lower coil inlet S1	C, mm	G1"/550	G1"/585	G1"/585	G1"/740	G1"/790	G1"/790
Upper coil outlet S2	F, mm	G1"/583	G1"/655	G1"/655	G1"/805	G1"/855	G1"/855
Upper coil inlet S2	J, mm	G1"/690	G1"/785	G1"/785	G1"/905	G1"/1005	G1"/1005
Hot water outlet	E, mm	G1"/260	G1½"/270	G1½"/270	G1½"/370	G1½"/370	G1½"/370
Inspection opening	O ø mm	110/180 465	110/180 515	110/180 515	200/280 615	200/280 665	200/280 665
Thermometer	T, mm	G½"/260	G½"/270	G½"/270	G½"/370	G½"/370	G½"/590
Anode protector	P, mm	G1½"/360	G1½"/360	G1½"/370	G1½"/370	G1½"/460	G1½"/690; 770
Electric heating element	U, mm	G1½"/465	G1½"/515	G1½"/515	G1½"/615	G1½"/665	G1½"/280; 665
Additional sensor sleeve	Z, mm				G½"/370	G½"/370	G½"/590

Lower S1 / Upper S2 H.Exch. surface

SWP series

Water heaters
for heat pump systems

SUNSYSTEM®

models:



SWP NL one coil water heater



SWP N one coil water heater



SWP 2N double coil water heater

With extra-sized heat exchanger surface;
suitable for solar water heating, space-heating, and heat pump
systems with large number of consumers.

Product features:

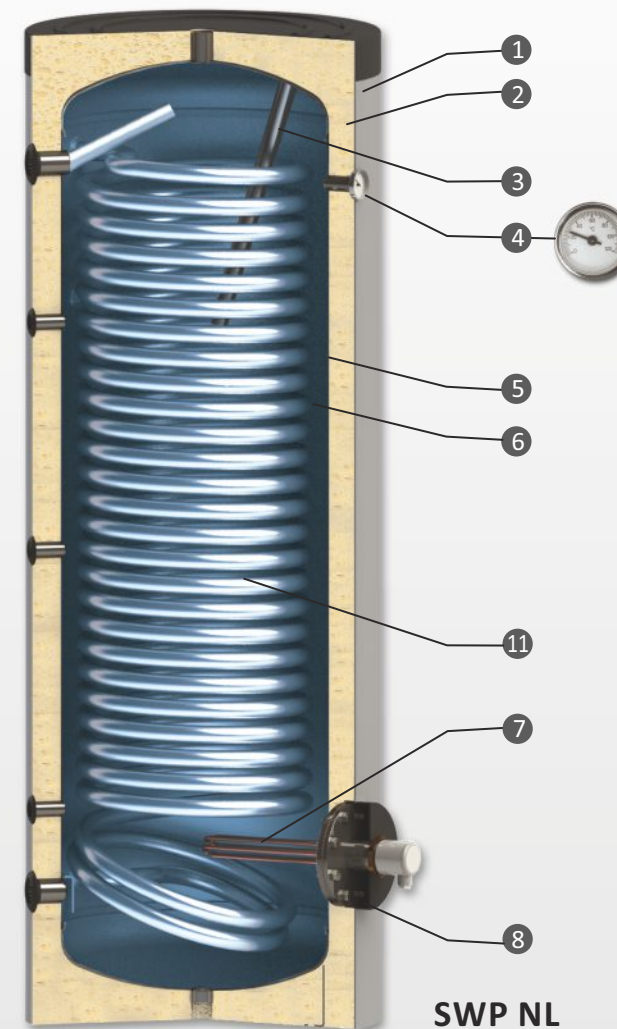
- High efficiency insulation and outer casing of PVC with RAL 9006 color.
- Multi-position mounting of temperature sensor.
- Complex corrosion protection realized by means of titanium enamel and anode protection.
- All threads are internal.
- Easy installation.
- Convenient inspection opening.
- High efficiency heat exchanger coil/coils (SWP N/SWP 2N).
The height of SWP NL model is compensated by its smaller diameter; heat exchanger coil with increased surface.
- Optional kit for electric heating with nominal power 3kW, 4.5kW, 6kW or 7.5kW.

Modifications and sizes:

SWP NL	V	300	400	500
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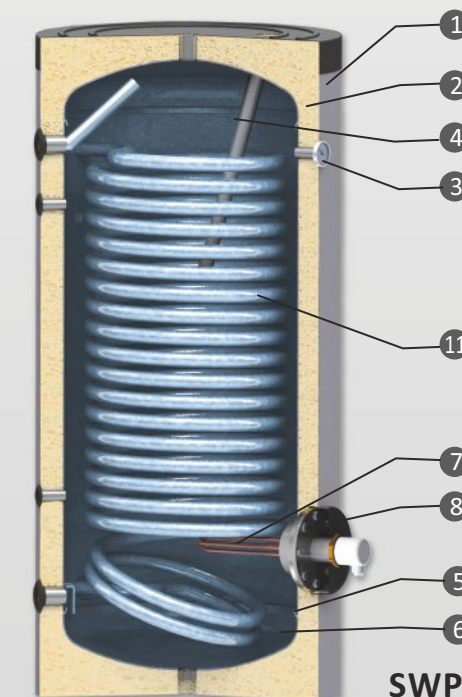
SWP N	V	150	200	300	400	500
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SWP 2N	V	300	400	500
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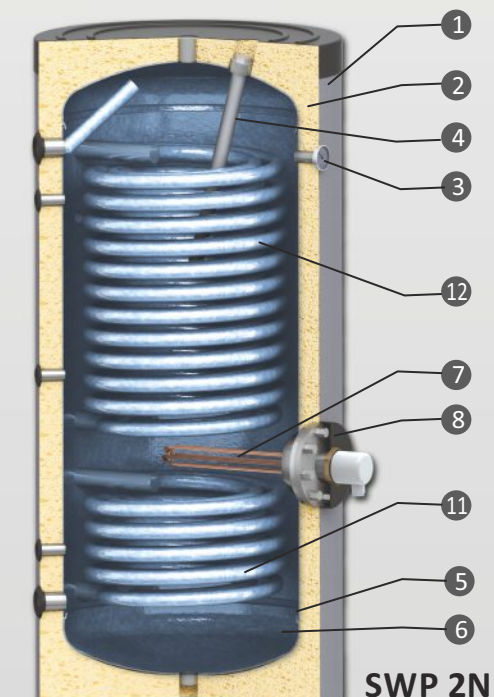


SWP NL

1. Aesthetic PVC jacket with color RAL 9006
2. Highly efficient thermal insulation
3. Anode protector (DIN 4753-6)
4. Thermometer
5. Water tank of low-carbon steel
6. Titanium enamel (DIN 4753-3)
7. Electric heating element
8. Inspection opening with flange cover
9. Thermostat with integrated thermal protection
10. Safety valve, 8 bar
11. High efficiency heat exchanger coil (SWP NL /SWP N /SWP 2N)
12. Upper high efficiency heat exchanger coil (SWP 2N)



SWP N



SWP 2N

SWP series

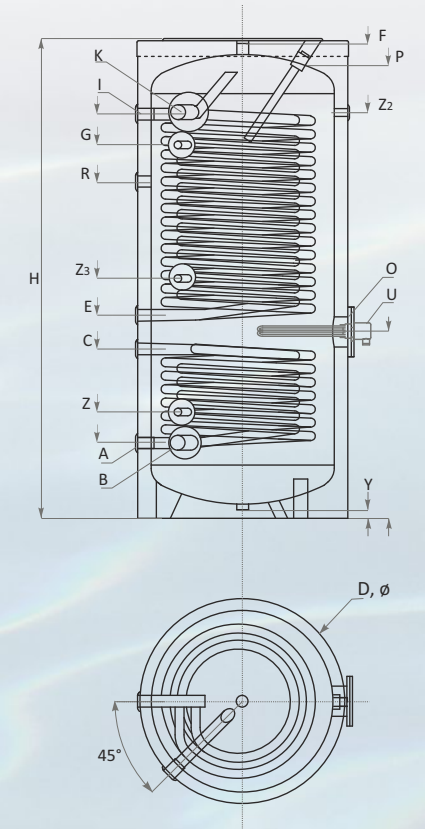
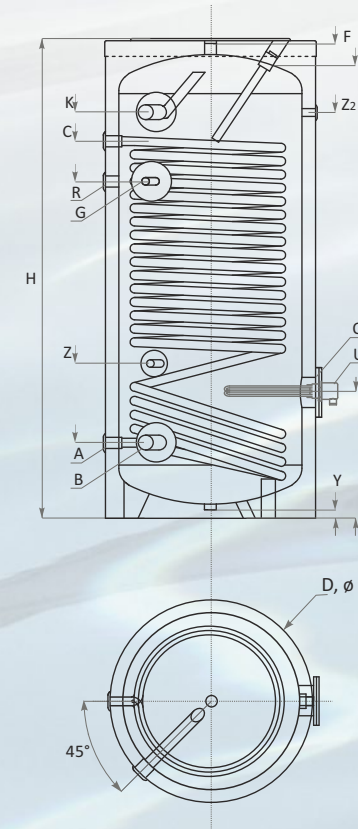
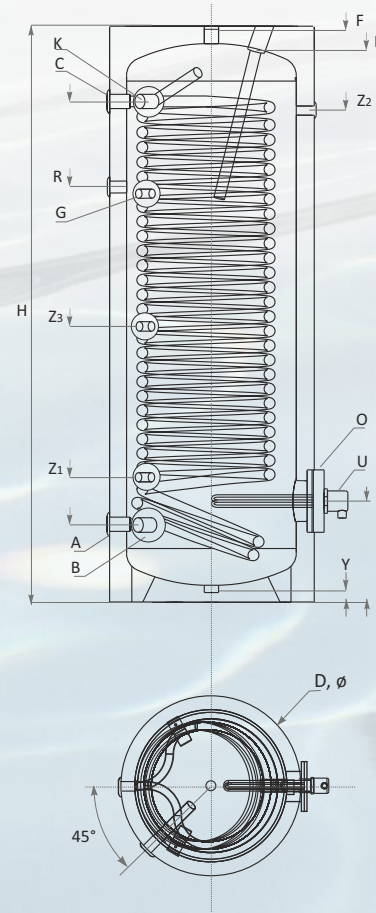
technical specifications



		SWP NL 300	SWP NL 400	SWP NL 500	SWP N 150	SWP N 200	SWP N 300	SWP N 400	SWP N 500	SWP2 N 300	SWP2 N 400	SWP2 N 500	
Capacity	l	300	400	500	150	200	300	400	500	300	400	500	
Height H / Min. vertical clearance	mm	1695/1801	1669/1811	1895/2023	1070/1210	1340/1460	1420/1580	1470/1670	1720/1890	1420/1580	1470/1670	1720/1890	
Diameter D	mm	ø 610	ø 710	ø 750	ø 560	ø 560	ø 660	ø 750	ø 750	ø 660	ø 750	ø 750	
Operating pressure / max. temperature	bar/°C	10/95	10/95	10/95	10/95	10/95	10/95	10/95	10/95	10/95	10/95	10/95	
Test pressure of tank	bar	15	15	15	15	15	15	15	15	15	15	15	
Lower Heat exch. coil S1	Heat exchange surface	m ²	3.3	3.9	4.6	1.4	1.9	2.3	2.8	3.3	1.2	1.5	1.8
	Coil capacity	l	20.4	23.6	28.3	8.6	11.7	14.8	17.2	20	6.5	10	11.8
	Prolonged power acc. to DIN 4708; 80/60/45 °C	kW m ³ /h	90 2.21	115 2.70	130 3.19	40.4 0.99	51 1.25	62 1.52	75 1.84	84 2.06	53 1.30	62 1.52	72 1.77
	NL – power coefficient at 60°C					6	8	20	27	34	11	14	18
	Pressure drop Δp	mbar	230	379	569	120	150	400	600	710	55	70	90
	Upper Heat exch. coil S2	Heat exchange surface	m ²								2.7	3.2	4.36
		Coil capacity	l								16.1	18.9	26
		Prolonged power acc. to DIN 4708; 80/60/45 °C	kW m ³ /h								75 1.84	82 2.01	94 2.31
		NL – power coefficient at 60°C									17	22	29
		Pressure drop Δp	mbar								70	85	120
Oper. pressure / max. coil temperature	bar/°C	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110	
Test pressure	bar	25	25	25	25	25	25	25	25	25	25	25	
Thermometer		optional	optional	optional	optional	optional	optional	optional	optional	optional	optional	optional	
Anode protector		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Electric heater (optional)	kW	3/4.5/6	3/4.5/6/7.5	3/4.5/6/7.5	3/4.5/6	3/4.5/6	3/4.5/6	3/4.5/6/7.5	3/4.5/6/7.5	3/4.5/6	3/4.5/6/7.5	3/4.5/6/7.5	
Weight	kg	131	175	196	70	90	121	165	190	145	198	236	

SWP series

technical specifications



		SWP NL 300	SWP NL 400	SWP NL 500	SWP N 150	SWP N 200	SWP N 300	SWP N 400	SWP N 500	SWP2 N 300	SWP2 N 400	SWP2 N 500
Lower coil outlet S1	A, mm	G1"/228	G1"/260	G1"/250	G1"/182	G1"/182	G1"/215	G1"/270	G1"/270	G1"/215	G1"/270	G1"/270
Cold water inlet	B, mm	G1"/228	G1 1/2"/260	G1 1/2"/250	G1"/182	G1"/182	G1"/215	G1 1/2"/270	G1 1/2"/270	G1"/215	G1 1/2"/270	G1 1/2"/270
Lower coil inlet S1	C, mm	G1"/1476	G1"/1390	G1"/1626	G1"/872	G1"/1122	G1"/1155	G1"/1210	G1"/1350	G 3/4"/456	G 3/4"/562	G 3/4"/606
Upper coil outlet S2	E, mm									G1"/578	G1"/678	G1"/726
Sensor sleeve for thermostat	G mm	G 3/2"/1220	G 3/2"/1176	G 3/2"/1298	G 3/2"/697	G 3/2"/967	G 3/2"/1054	G 3/2"/1054	G 3/2"/1206	G 3/4"/1170	G1"/1152	G1"/1453
Recirculation	R, mm	G 3/4"/1224	G1"/1180	G1"/1392	G 3/4"/652	G 3/4"/922	G 3/4"/1007	G1"/1105	G1"/1206	G 3/4"/1007	G1"/1105	G1"/1206
Upper coil inlet S2	I, mm									G1"/1155	G1"/1210	G1"/1446
Hot water outlet	K, mm	G1"/1476	G1 1/2"/1420	G1 1/2"/1643	G1"/895	G1"/1160	G1"/1182	G1 1/4"/1240	G1 1/2"/1453	G1"/1182	G1 1/4"/1240	G1 1/2"/1475
Air vent sleeve	F, mm	G1"/1695	G1"/1669	G1"/1895	G1"/1070	G1"/1340	G1"/1410	G1"/1460	G1"/1710	G1"/1410	G1"/1460	G1"/1710
Inspection opening	O ø mm	110/180 298	110/180 345	110/180 345	110/180 309	110/180 309	110/180 320	110/180 450	110/180 450	110/180 516	110/180 618	110/180 666
Drain sleeve	Y, mm	G1"/30	G1"/30	G1"/30	G1"/30	G1"/30	G1"/30	G1"/30	G1"/30	G1"/30	G1"/30	G1"/30
Anode protector	P, mm	G1 1/4"/1695	G1 1/4"/1524	G1 1/4"/1750	G1 1/4"/1070	G1 1/4"/1340	G1 1/4"/1410	G1 1/4"/1318	G1 1/4"/1568	G1 1/4"/1410	G1 1/4"/1318	G1 1/4"/1568
Electric heating element	U, mm	G1 1/2"/298	G1 1/2"/345	G1 1/2"/345	G1 1/2"/309	G1 1/2"/309	G1 1/2"/320	G1 1/2"/450	G1 1/2"/450	G1 1/2"/516	G1 1/2"/618	G1 1/2"/666
Additional sensor sleeve	Z, mm	G 3/2"/368 G 3/2"/813 G 3/2"/1204	G 3/2"/420 G 3/2"/695 G 3/2"/1100	G 3/2"/433 G 3/2"/966 G 3/2"/1372	G 3/2"/410 G 3/2"/868	G 3/2"/410 G 3/2"/11380	G 3/2"/430 G 3/2"/1170	G 3/2"/560 G 3/2"/1152	G 3/2"/560 G 3/2"/1453	G 3/2"/697 G 3/2"/1070 G 3/2"/325	G 3/2"/755 G 3/2"/1130 G 3/2"/380	G 3/2"/858 G 3/2"/1336 G 3/2"/380

P series

Buffer tanks
for heating systems

models:



P buffer tank without coil



PR single coil buffer tank



PR 2 double coil buffer tank

Accumulates the heat generated by boiler; recommended for each space-heating system. Ensures optimum operating mode of biomass boiler, permitting its functioning at nominal power output even when the heating system does not need all the heat energy produced thereby. Produced heat is accumulated and stored inside the buffer tank and can be used even when the boiler itself has cooled down.

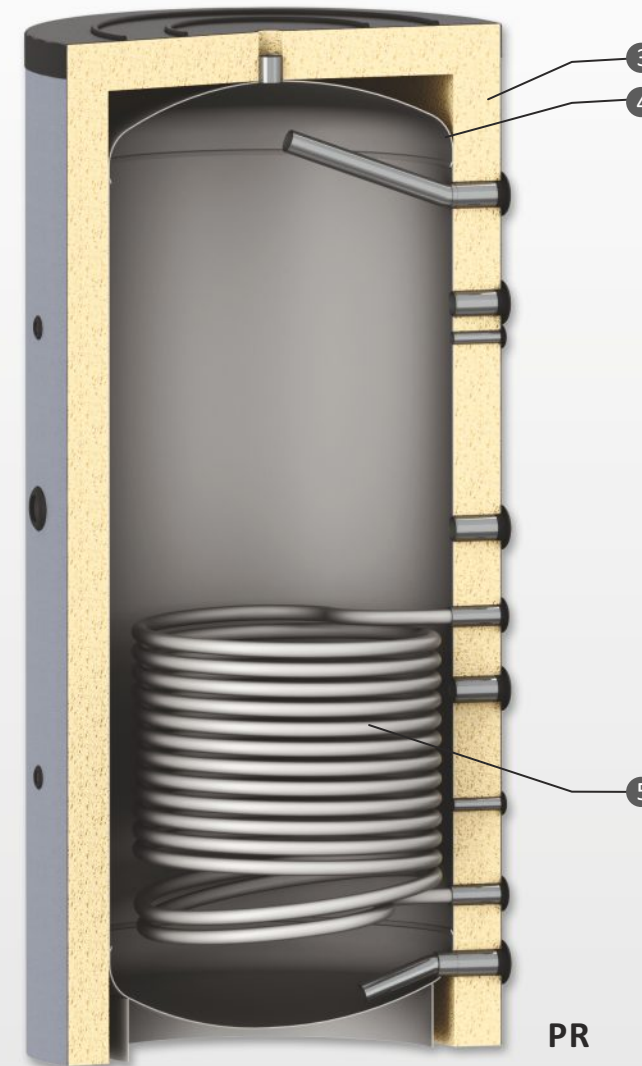
Product features:

- Removable high efficiency insulation with thickness 100 mm and outer casing of PVC with RAL 9006 color
- Multi-position mounting of temperature sensor
- Primer coated on the outside of the tank
- Heat exchanger coil /coils (PR /PR 2).
- All threads are internal
- Inlet/Outlet arrangement -180 angle degrees
- Easy installation.
- Optional kit for electric heating with nominal power 3kW, 4.5kW, 6kW or 7.5kW

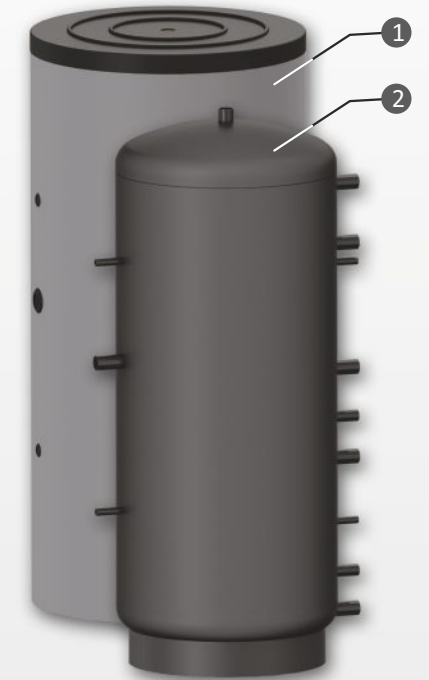
Modifications and sizes:

P	V	300	500	800	1000	1500	2000	2500	3000	5000
PR	V	300	500	800	1000	1500	2000	2500	3000	
PR 2	V	300	500	800	1000	1500	2000	2500	3000	

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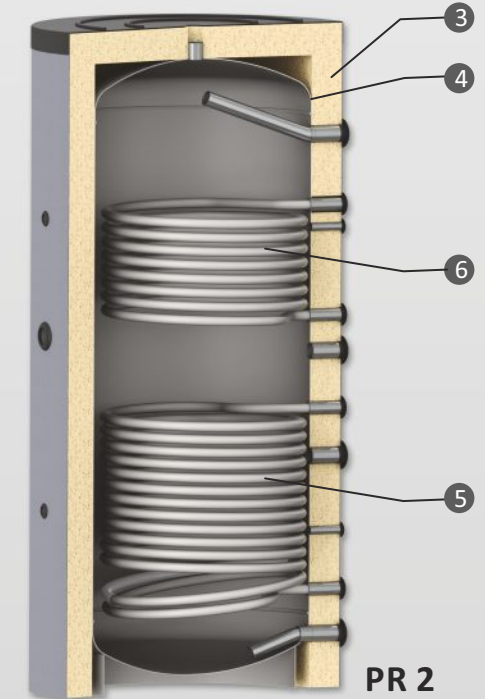
PR



1. Aesthetic PVC jacket with color RAL 9006
2. Primer coated outer surface
3. Removable insulation
4. Water tank of low-carbon steel
5. Lower coil (PR/ PR 2)
6. Upper coil (PR 2)



P



PR 2

P series

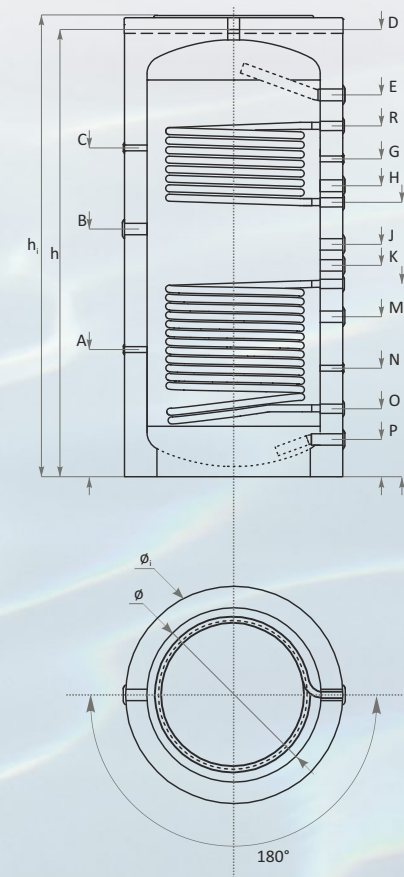
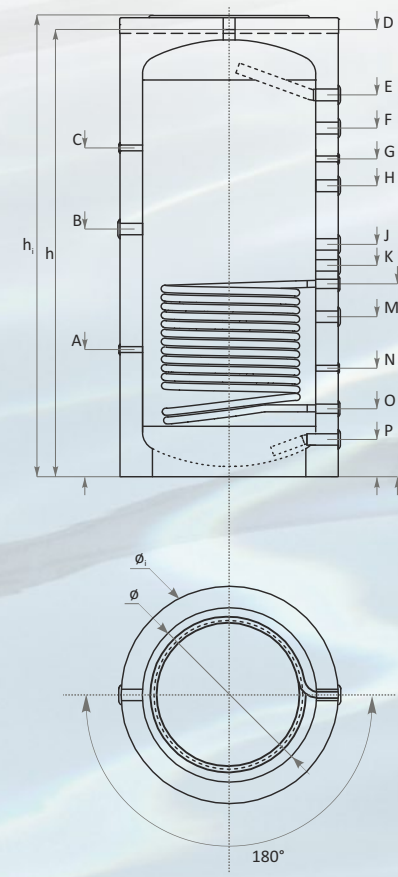
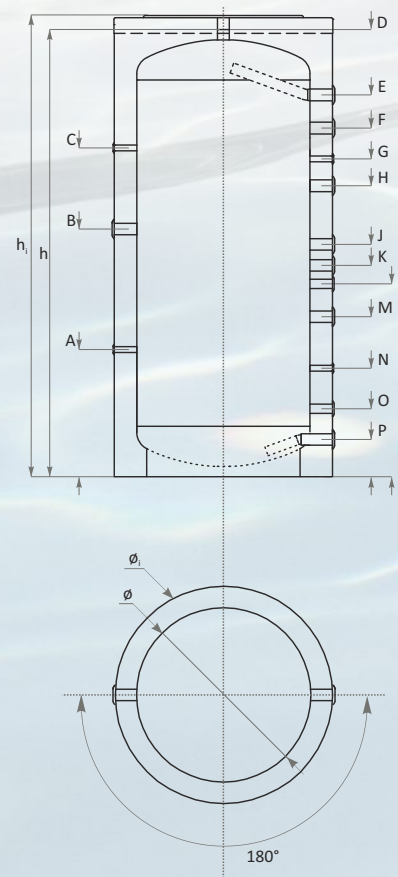
technical specifications



	P 300	P 500	P 800	P 1000	P 1500	P 2000	P 2500	P 3000	P 3000	P 5000	PR 300	PR 500	PR 800	PR 1000	PR 1500	PR 2000	PR 2500	PR 3000	PR2 300	PR2 500	PR2 800	PR2 1000	PR2 1500	PR2 2000	PR2 2500	PR2 3000	
Capacity	l	300	500	800	1000	1500	2000	2500	3000	3000	5000	300	500	800	1000	1500	2000	2500	3000	300	500	800	1000	1500	2000	2500	3000
Diameter D ø /with insulation ø,	mm	550/750	650/850	790/990	790/990	1000/1200	1200/1400	1200/1400	1250/1450	1400/1600	1600/1800	550/750	650/850	790/990	790/990	1000/1200	1200/1400	1200/1400	1250/1450	550/750	650/850	790/990	790/990	1000/1200	1200/1400	1200/1400	1250/1450
Height h /with insulation h,	mm	1410/1460	1610/1660	1860/1910	2040/2090	2170/2220	2130/2180	2480/2530	2720/2770	2245/2295	2938/2988	1410/1460	1610/1660	1860/1910	2040/2090	2170/2220	2130/2180	2480/2530	2720/2770	1410/1460	1610/1660	1860/1910	2040/2090	2170/2220	2130/2180	2480/2530	2720/2770
Min. vertical clearance	mm	1430	1640	1900	2075	2220	2210	2550	2782	2386	3065	1430	1640	1900	2075	2220	2210	2550	2782	1430	1640	1900	2075	2220	2210	2550	2782
Lower heat exchanger coil S1																											
Heat exchange surface	m ²											1.0	1.7	2.9	3.0	3.4	4.0	4.0	4.5	1.0	1.7	2.9	3.0	3.4	4.0	4.0	4.5
Coil capacity	l											6.2	10.5	17.9	18.5	21	24.6	24.6	27.7	6.2	10.5	17.9	18.5	21	24.6	24.6	27.7
Upper heat exchanger coil S2																											
Heat exchange surface	m ²																			0.5	1.0	1.8	2.0	2.4	2.4	2.4	3.1
Coil capacity	l																			3.1	6.2	11.1	12.3	14.8	14.8	19.1	
Operating pressure /Max. coil temperature	bar/°C											16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110
Operating pressure/Max. buffer temperature	bar/°C	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95
Recommended boiler size, connected to the buffer	kW	6-10	10-17	15-27	18-33	27-50	36-67	45-83	55-100	55-100	55-100	6-10	10-17	15-27	18-33	27-50	36-67	45-83	55-100	6-10	10-17	15-27	18-33	27-50	36-67	45-83	55-100
Thermometer																				optional							
PVC coating with insulation (optional)																				100 mm soft PU							
Weight Buffer /Insulation	kg	77/9,5	99/12,3	126/16,4	152/18	274/23,2	382/26,5	423/30	520/35	520/35	560/40	92/9,5	129/12,3	161/16,4	194/18	316/23,2	424/26,5	465/30	590/35	100/9,5	140/12,3	185/16,4	220/18	348/23,2	456/26,5	497/30	640/35

P series

technical specifications



		P	P	P	P	P	P	P	P	P	PR	PR	PR	PR	PR	PR	PR	PR	PR2	PR2	PR2	PR2	PR2	PR2	PR2	PR2	
		300	500	800	1000	1500	2000	2500	3000	3000	5000	300	500	800	1000	1500	2000	2500	3000	300	500	800	1000	1500	2000	2500	3000
Sensor sleeve	A, mm	G½"/410	G½"/410	G½"/570	G½"/580	G½"/875	G½"/920	G½"/920	G½"/822	G½"/908	G½"/951	G½"/410	G½"/410	G½"/570	G½"/580	G½"/875	G½"/920	G½"/920	G½"/822	G½"/410	G½"/410	G½"/570	G½"/580	G½"/875	G½"/920	G½"/920	G½"/822
Electric heating element	B, mm	G1½"/760	G1½"/790	G1½"/920	G1½"/1130	G1½"/1130	G1½"/1170	G1½"/1170	G1½"/1356	G1½"/1182	G1½"/1505	G1½"/760	G1½"/790	G1½"/920	G1½"/1130	G1½"/1130	G1½"/1170	G1½"/1170	G1½"/1356	G1½"/760	G1½"/790	G1½"/920	G1½"/1130	G1½"/1130	G1½"/1170	G1½"/1170	G1½"/1356
Sensor sleeve	C, mm	G½"/1060	G½"/1120	G½"/1290	G½"/1500	G½"/1500	G½"/1645	G½"/1645	G½"/1832	G½"/1658	G½"/2001	G½"/1060	G½"/1120	G½"/1290	G½"/1500	G½"/1500	G½"/1645	G½"/1645	G½"/1832	G½"/1060	G½"/1120	G½"/1290	G½"/1500	G½"/1700	G½"/1645	G½"/1645	G½"/1832
Air vent sleeve	D, mm	G1½"/1410	G1½"/1610	G1½"/1860	G1½"/2040	G1½"/2170	G1½"/2130	G1½"/2480	G1½"/2720	G1½"/2245	G1½"/2938	G1½"/1410	G1½"/1610	G1½"/1860	G1½"/2040	G1½"/2170	G1½"/2130	G1½"/2480	G1½"/2720	G1½"/1410	G1½"/1610	G1½"/1860	G1½"/2040	G1½"/2170	G1½"/2130	G1½"/2480	G1½"/2720
Boiler heat carrier inlet	E, mm	G1½"/1170	G1½"/1370	G1½"/1573	G1½"/1742	G1½"/1808	G1½"/1775	G1½"/2125	G1½"/2289	G1½"/1795	G1½"/2438	G1½"/1170	G1½"/1370	G1½"/1573	G1½"/1742	G1½"/1808	G1½"/1775	G1½"/2125	G1½"/2289	G1½"/1170	G1½"/1370	G1½"/1573	G1½"/1742	G1½"/1808	G1½"/1775	G1½"/2125	G1½"/2289
Heat carrier inlet/Upper coil S2	F, mm			G1"/1390	G1"/1520	G1"/1635								G1"/1390	G1"/1520	G1"/1635			G1"/2125	G1"/1080	G1"/1270	G1"/1390	G1"/1520	G1"/1635	G1"/1645	G1"/1885	G1"/2125
Sensor sleeve	G, mm	G½"/1010	G½"/1120	G½"/1290	G½"/1450	G½"/1525	G½"/1625	G½"/1625	G½"/2052	G½"/1588	G½"/2231	G½"/1010	G½"/1120	G½"/1290	G½"/1450	G½"/1525	G½"/1625	G½"/1625	G½"/2052	G½"/1010	G½"/1120	G½"/1290	G½"/1450	G½"/1525	G½"/1625	G½"/1625	G½"/2052
Boiler heat carrier	H, mm	G1½"/880	G1½"/990		G1½"/1305	G1½"/1420	G1½"/1420	G1½"/1686	G1½"/1686	G1½"/2115		G1½"/880	G1½"/990		G1½"/1305	G1½"/1420	G1½"/1420	G1½"/1686	G1½"/880	G1½"/990		G1½"/1305	G1½"/1420	G1½"/1420	G1½"/1686	G1½"/1686	
Upper coil outlet S2	I, mm																		G1"/880	G1"/990	G1"/1072	G1"/1172	G1"/1225	G1"/1285	G1"/1525	G1"/1575	
Boiler heat carrier	J, mm	G1½"/770	G1½"/880	G1½"/980	G1½"/1060	G1½"/1085	G1½"/1170	G1½"/1170	G1½"/1346	G1½"/1472	G1½"/1735	G1½"/770	G1½"/880	G1½"/980	G1½"/1060	G1½"/1085	G1½"/1170	G1½"/1170	G1½"/1346	G1½"/770	G1½"/880	G1½"/980	G1½"/1060	G1½"/1085	G1½"/1170	G1½"/1170	G1½"/1346
Additional sleeve	K, mm					G½"/975									G½"/975												G½"/975
Heat carrier inlet/Lower coil S1	L, mm	G1"/660	G1"/770	G1"/820	G1"/880	G1"/895	G1"/980	G1"/980	G1"/1195	G1"/1080	G1"/1373	G1"/660	G1"/770	G1"/820	G1"/880	G1"/895	G1"/980	G1"/980	G1"/1195	G1"/660	G1"/770	G1"/820	G1"/880	G1"/895	G1"/980	G1"/980	G1"/1195
Boiler heat carrier	M, mm	G1½"/540	G1½"/620	G1½"/670	G1½"/730	G1½"/765	G1½"/735	G1½"/735	G1½"/926	G1½"/862	G1½"/1155	G1½"/540	G1½"/620	G1½"/670	G1½"/730	G1½"/765	G1½"/735	G1½"/735	G1½"/926	G1½"/540	G1½"/620	G1½"/670	G1½"/730	G1½"/765	G1½"/735	G1½"/735	G1½"/926
Sensor sleeve	N, mm	G½"/420	G½"/460	G½"/465	G½"/495	G½"/520	G½"/500	G½"/500	G½"/672	G½"/608	G½"/691	G½"/420	G½"/460	G½"/465	G½"/495	G½"/520	G½"/500	G½"/500	G½"/672	G½"/420	G½"/460	G½"/465	G½"/495	G½"/520	G½"/500	G½"/500	G½"/672
Heat carrier outlet/Lower coil S1	O, mm	G1"/260	G1"/250	G1"/310	G1"/310	G1"/375	G1"/380	G1"/380	G1"/390	G1"/475	G1"/518	G1"/260	G1"/250	G1"/310	G1"/310	G1"/375	G1"/380	G1"/380	G1"/390	G1"/260	G1"/250	G1"/310	G1"/310	G1"/375	G1"/380	G1"/380	G1"/390
Boiler heat carrier outlet	P, mm	G1½"/150	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/230	G1½"/230	G1½"/256	G1½"/342	G1½"/385	G1½"/150	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/230	G1½"/230	G1½"/256	G1½"/150	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/230	G1½"/230	G1½"/256

PS series

Buffer tanks
for heating systems

models:



PS buffer tank without coil



PS 1 single coil buffer tank



PS 2 double coil buffer tank

Accumulates the heat generated by boiler; recommended for each space-heating system. Ensures optimum operating mode of biomass boiler, permitting its functioning at nominal power output even when the heating system does not need all the heat energy produced thereby. Produced heat is accumulated and stored inside the buffer tank and can be used even when the boiler itself has cooled down.

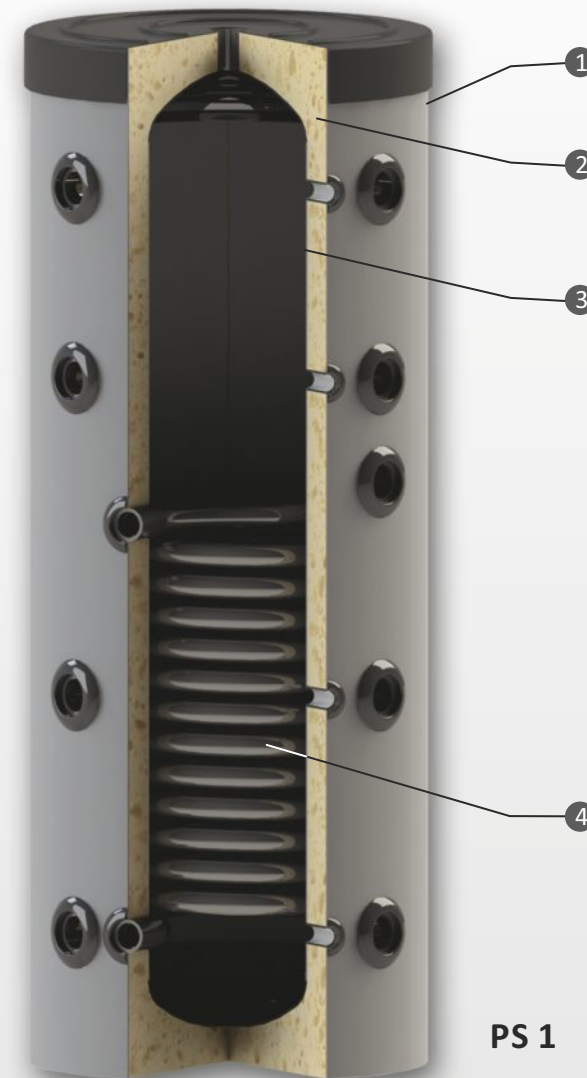
Product features:

- Compact dimensions.
- High efficiency insulation with thickness 50 mm and outer casing of PVC with RAL 9006 color.
- Multi-position mounting of temperature sensor
- Heat exchanger coil /coils (PS 1 /PS 2).
- All threads are internal
- Inlet/Outlet arrangement -100 angle degrees
- Easy installation.
- Optional kit for electric heating with nominal power 3kW;

Modifications and sizes:

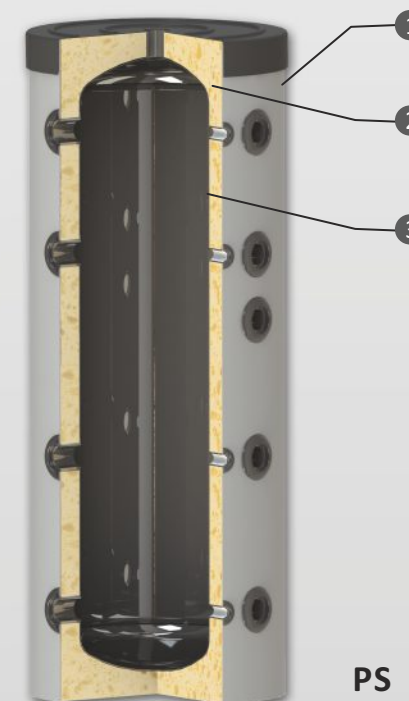
PS	V	150	200
PS 1	V	150	200
PS 2	V	150	200

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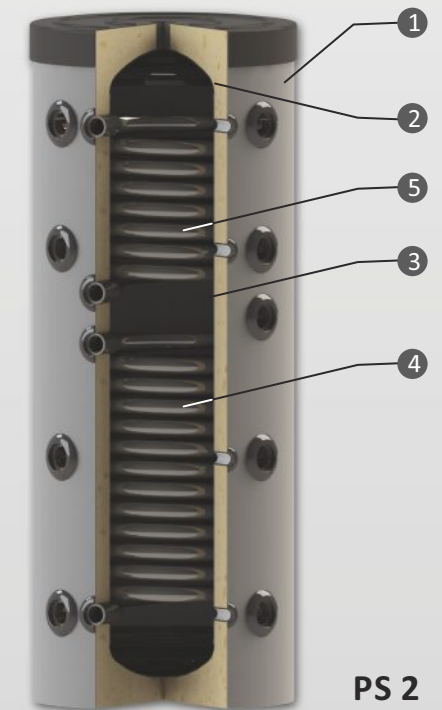


PS 1

1. Aesthetic PVC jacket with color RAL 9006
2. Highly efficient thermal insulation
3. Water tank of low-carbon steel
4. Lower coil (PS 1/ PS 2)
5. Upper coil (PS 2)



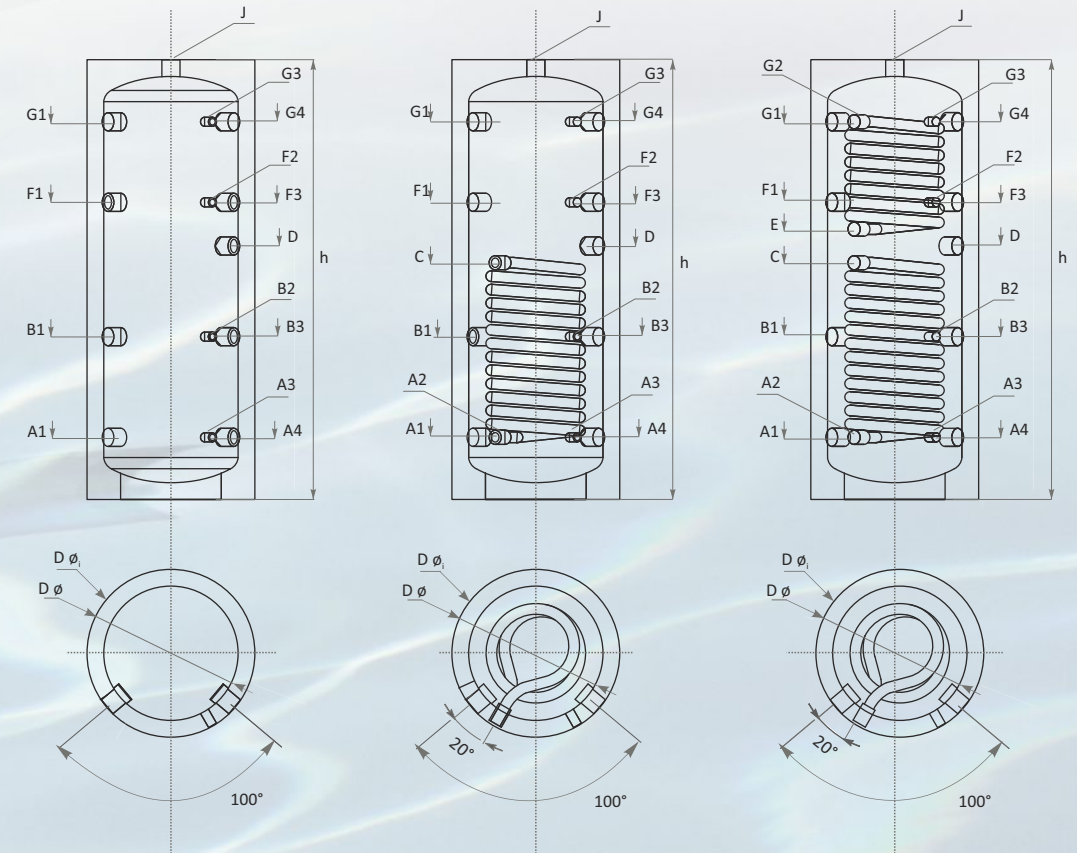
PS



PS 2

PS series

technical specifications



		PS 150	PS 200	PS 1 150	PS 1 200	PS 2 150	PS 2 200
Capacity	l	150	200	150	200	150	200
Diameter D ø /with insulation ø,	mm	400/500	400/500	400/500	400/500	400/500	400/500
Height h /with insulation h,	mm	1310	1710	1310	1710	1310	1710
Min. vertical clearance	mm	1400	1780	1400	1780	1400	1780
Lower heat exchanger coil S1				1,1	1,6	1,1	1,6
Heat exchange surface	m ²			6,8	9,9	6,8	9,9
Coil capacity	l						
Upper heat exchanger coil S2						0,66	1,0
Heat exchange surface	m ²					4,1	6,2
Coil capacity	l						
Operating pressure /Max. coil temperature	bar/°C			16/110	16/110	16/110	16/110
Operating pressure/Max. buffer temperature	bar/°C	3/95	3/95	3/95	3/95	3/95	3/95
Recommended boiler size, connected to the buffer	kW	6-10	6-10	6-10	6-10	6-10	6-10
Thermometer		option		option		option	
PVC coating with insulation (optional)		50 mm rigid PU		50 mm rigid PU		50 mm rigid PU	
Weight Buffer /Insulation	kg	56	74	56	74	69	91

		PS 150	PS 200	PS 1 150	PS 1 200	PS 2 150	PS 2 200
Connection	A1, mm	G1½"/185	G1½"/185	G1½"/185	G1½"/185	G1½"/185	G1½"/185
Lower coil outlet	A2, mm			G1"/185	G1"/185	G1"/185	G1"/185
Sensor sleeve	A3, mm	G½"/185	G½"/185	G½"/185	G½"/185	G½"/185	G½"/185
Connection	A4, mm	G1½"/185	G1½"/185	G1½"/185	G1½"/185	G1½"/185	G1½"/185
Connection	B1, mm	G1½"/485	G1½"/725	G1½"/485	G1½"/725	G1½"/485	G1½"/725
Sensor sleeve	B2, mm	G1½"/485	G1½"/725	G1½"/485	G1½"/725	G1½"/485	G1½"/725
Connection	B3, mm	G½"/485	G½"/725	G½"/485	G½"/725	G½"/485	G½"/725
Lower coil inlet	C, mm	G1"/705	G1"/945	G1"/705	G1"/945	G1"/705	G1"/945
Electric heating element	D, mm	G1½"/755	G1½"/995	G1½"/755	G1½"/995	G1½"/755	G1½"/995
Upper coil outlet	E, mm	G1"/805	G1"/1045	G1"/805	G1"/1045	G1"/805	G1"/1045
Connection	F1, mm	G1½"/885	G1½"/1165	G1½"/885	G1½"/1165	G1½"/885	G1½"/1165
Sensor sleeve	F2, mm	G½"/885	G½"/1165	G½"/885	G½"/1165	G½"/885	G½"/1165
Connection	F3, mm	G1½"/885	G1½"/1125	G1½"/885	G1½"/1125	G1½"/885	G1½"/1125
Upper coil inlet	G2, mm			G1"/1125	G1"/1525	G1"/1125	G1"/1525
Sensor sleeve	G3, mm	G½"/1125	G½"/1525	G½"/1125	G½"/1525	G½"/1125	G½"/1525
Connection	G4, mm	G1½"/1125	G1½"/1525	G1½"/1125	G1½"/1525	G1½"/1125	G1½"/1525
Connection	J, mm	G1½"/1310	G1½"/1710	G1½"/1310	G1½"/1710	G1½"/1310	G1½"/1710

PBS/PBS H series

Buffer tanks
for heating systems

models:



PBS/ PBS H buffer tank without coil



PBS R/ PBS RH single coil buffer tank



PBS R2/ PBS R2 H double coil buffer tank

Accumulates the heat generated by boiler; recommended for each space-heating system. Ensures optimum operating mode of biomass boiler, permitting its functioning at nominal power output even when the heating system does not need all the heat energy produced thereby. Produced heat is accumulated and stored inside the buffer tank and can be used even when the boiler itself has cooled down. PBS/PBS H series buffer tank design allows heat distribution of layers through integrated thermosiphon tube (water stratification unit) and dividing plate.

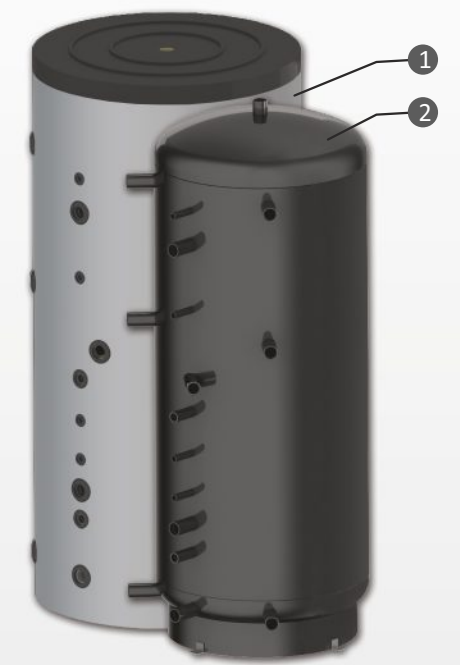
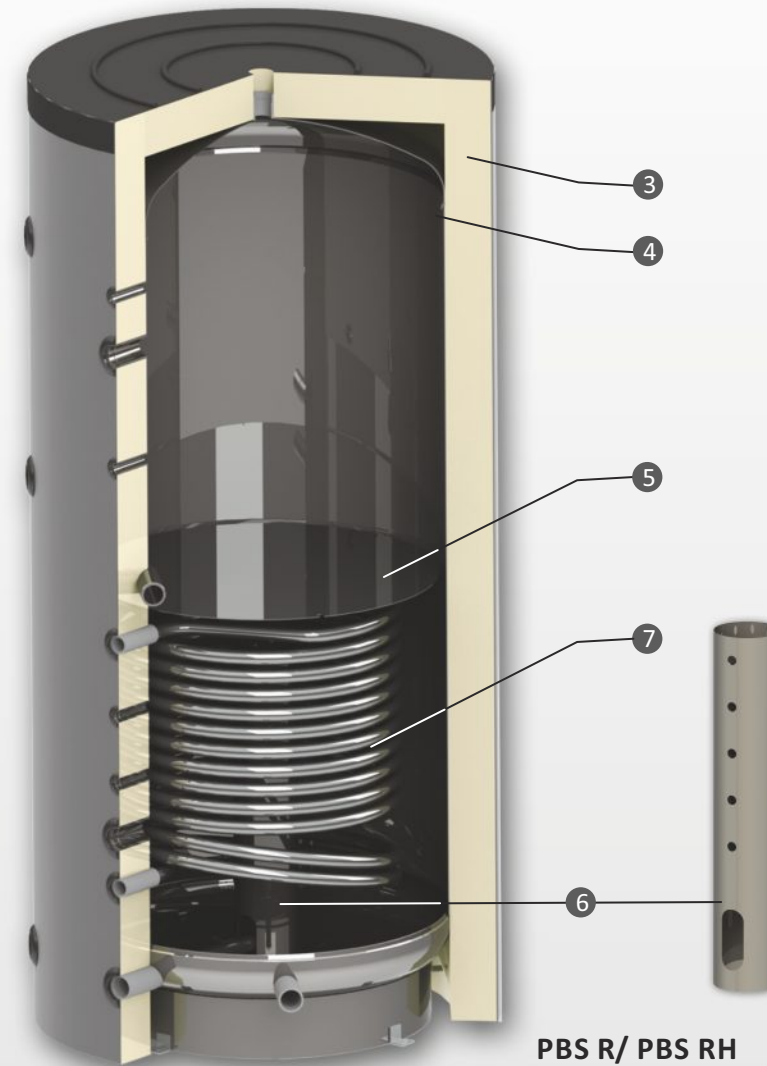
Product features:

- Removable highly efficient insulation of soft PU (PBS) or rigid PU (PBS H) with thickness 100 mm and outer casing of PVC with RAL 9006 color
- Primer coated on the outside of the tank
- Up to 4 pcs G½" sensor sleeves
- Up to 14 pcs. G1" or G1½" inlet/outlet sleeves -connections to heating boilers, indirect heating of domestic hot water (DHW) and solar system
- Inlet/Outlet arrangement -90 angle degrees for easy and convenient installation. Possible installation in the corner of boiler room
- Heat exchanger coil /coils (PBS R / PBS R2 /PBS RH /PBS R2H)
- Optional kit for electric heating with nominal power 3kW, 4.5kW, 6kW or 7.5kW

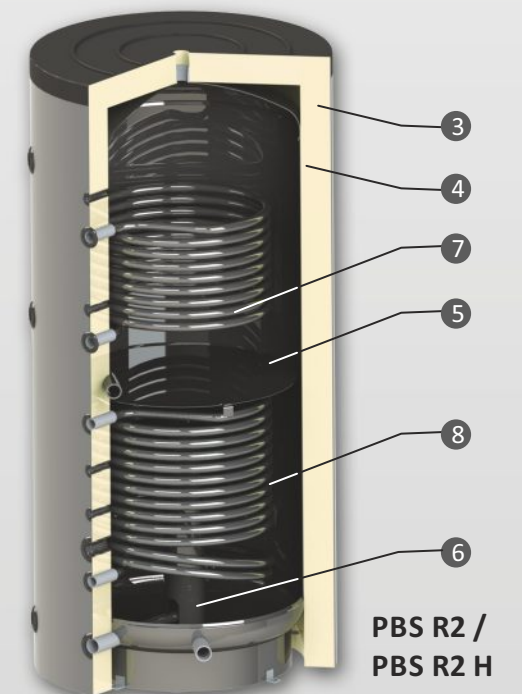
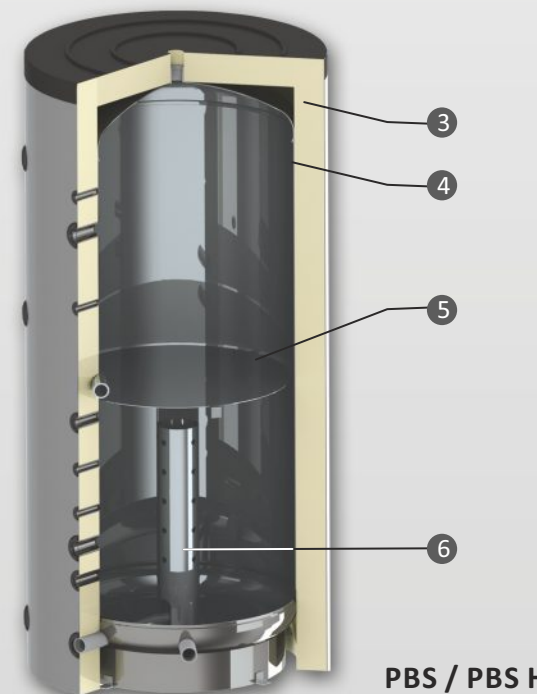
Modifications and sizes:

PBS	V	300	500	800	1000	1500	2000	2500	3000	5000
PBS H	V			800	1000					
PBS R	V	300	500	800	1000	1500	2000	2500	3000	
PBS RH	V			800	1000					
PBS R2	V	300	500	800	1000	1500	2000	2500	3000	
PBS R2 H	V			800	1000					

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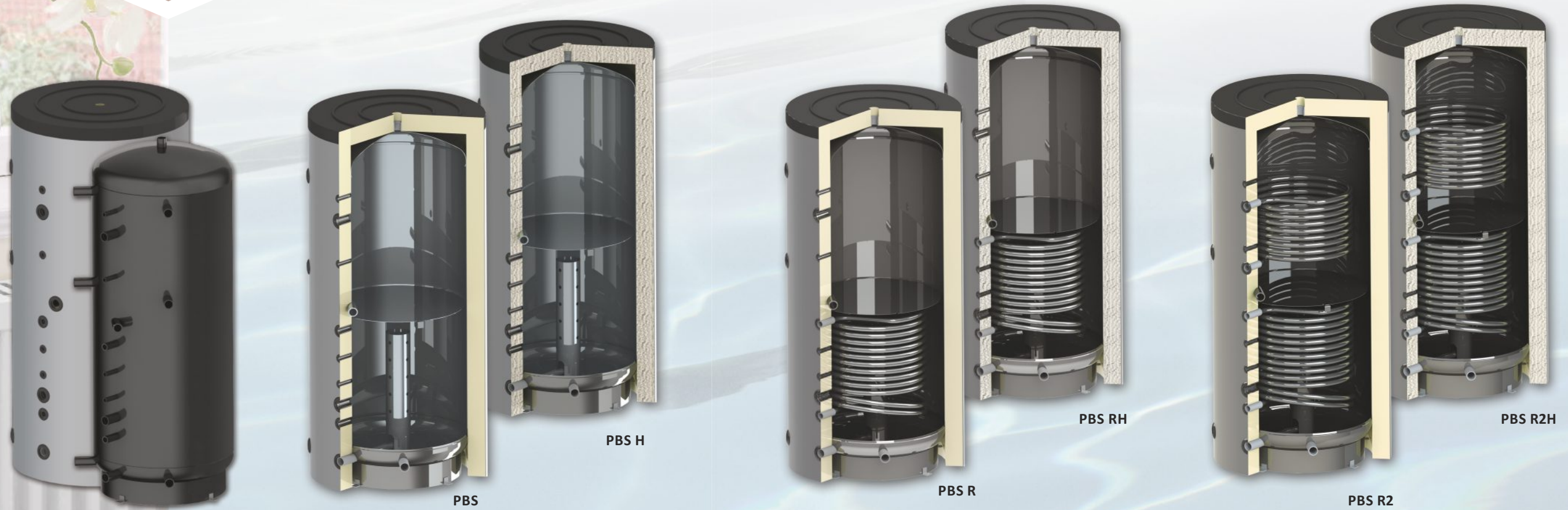


1. Aesthetic PVC jacket with color RAL 9006
2. Primer coated outer surface
3. Removable insulation- soft PU (PBS) or rigid PU (PBS H)
4. Water tank of low-carbon steel
5. Dividing plate (separator)
6. Thermosiphon tube (water stratification unit)
7. Lower coil (PBS R/ PBS R2 / PBS RH /PBS R2H)
8. Upper coil (PBS R2 /PBS R2H)



PBS/PBS H series

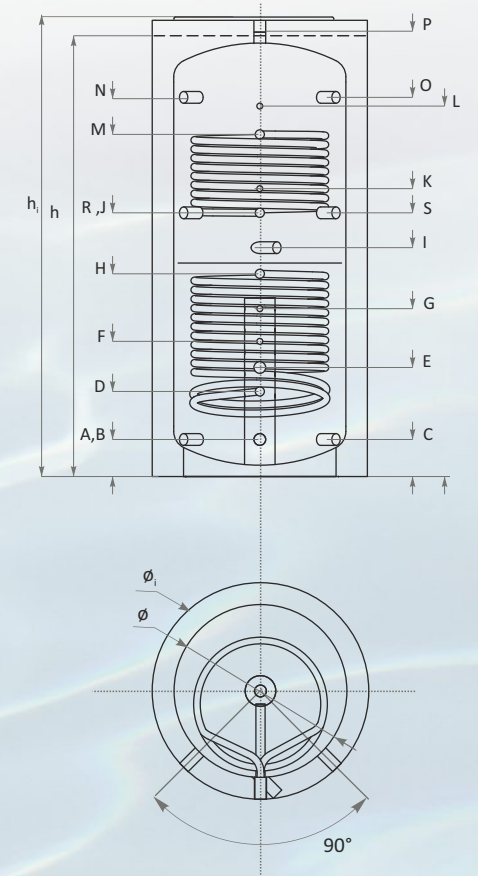
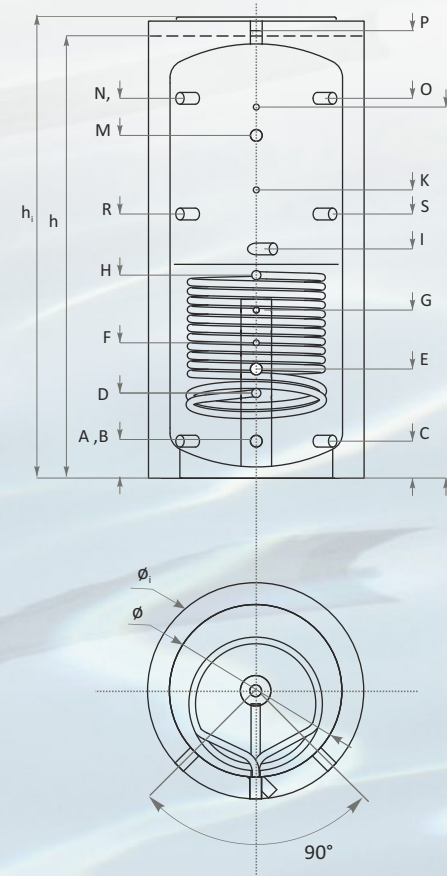
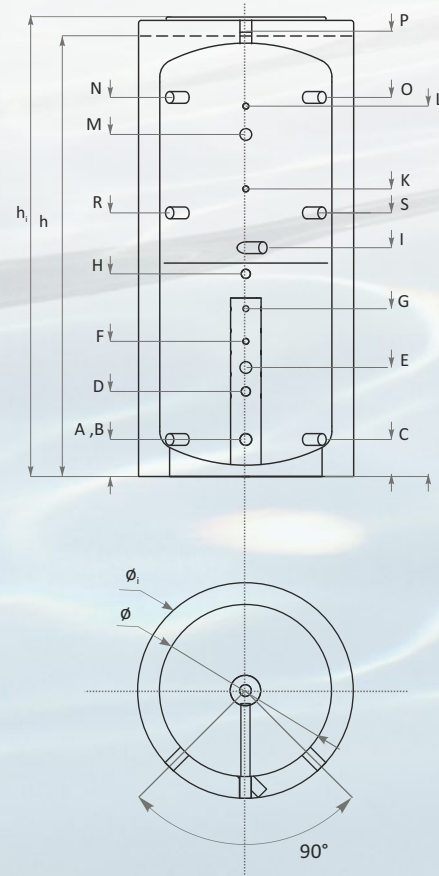
technical specifications



	PBS 300	PBS 500	PBS/ PBS H 800	PBS/ PBS H 1000	PBS 1500	PBS 2000	PBS 2500	PBS 3000	PBS 5000	PBS R 300	PBS R 500	PBS R/ PBS RH 800	PBS R/ PBS RH 1000	PBS R 1500	PBS R 2000	PBS R 2500	PBS R 3000	PBS R2 300	PBS R2 500	PBS R2/ PBS R2H 800	PBS R2/ PBS R2H 1000	PBS R2 1500	PBS R2 2000	PBS R2 2500	PBS R2 3000	
Capacity	l	300	500	800	1000	1500	2000	2500	3000	3000	300	500	800	1000	1500	2000	2500	3000	300	500	800	1000	1500	2000	2500	3000
Diameter D ø /with insulation ø,	mm	550/750	650/850	790/990	790/990	1000/1200	1150/1350	1150/1350	1250/1450	1600/1800	550/750	650/850	790/990	790/990	1000/1200	1150/1350	1150/1350	1250/1450	550/750	650/850	790/990	790/990	1000/1200	1150/1350	1150/1350	1250/1450
Height h /with insulation h _i	mm	1410/1460	1610/1660	1860/1910	2040/2090	2170/2220	2200/2250	2680/2730	2720/2770	2938/2988	1410/1460	1610/1660	1860/1910	2040/2090	2170/2220	2200/2250	2680/2730	2720/2770	1410/1460	1610/1660	1860/1910	2040/2090	2170/2220	2200/2250	2680/2730	2720/2770
Min. vertical clearance	mm	1430	1640	1900	2075	2220	2260	2730	2782	3065	1430	1640	1900	2075	2220	2260	2730	2782	1430	1640	1900	2075	2220	2260	2730	2782
Lower heat exchanger coil S1	m ²										1.0	1.7	2.9	3.0	3.4	4.0	4.0	4.5	1.0	1.7	2.9	3.0	3.4	4.0	4.0	4.5
Heat exchange surface	l										6.2	10.5	17.9	18.5	21	24.6	24.6	27.7	6.2	10.5	17.9	18.5	21	24.6	24.6	27.7
Coil capacity																										
Upper heat exchanger coil S2	m ²																		0.5	1.0	1.8	2.0	2.4	2.4	2.4	3.1
Heat exchange surface	l																		3.1	6.2	11.1	12.3	14.8	14.8	14.8	19.1
Coil capacity																										
Operating pressure /Max. coil temperature	bar/°C										16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110
Operating pressure/Max. buffer temperature	bar/°C	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95
Recommended boiler size, connected to the buffer	kW	6-10	10-17	15-27	18-33	27-50	36-67	45-83	55-100	55-100	6-10	10-17	15-27	18-33	27-50	36-67	45-83	55-100	6-10	10-17	15-27	18-33	27-50	36-67	45-83	55-100
Thermometer																										
Thermosiphon tube (water stratification unit)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Dividing plate.		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PVC coating with insulation (optional)																										
Weight Buffer /Insulation	kg	77/9,5	80/12,3	105/16,4	130/18	255/23,2	360/26,5	463/31	500/32	750/45	92/9,5	110/12,3	135/16,4	167/18	290/23,2	360/26,5	530/31	567/32	100/9,5	120/12,3	165/16,4	192/18	330/23,2	425/26,5	563/31	600/32

PBS/PBS H series

technical specifications



		PBS 300	PBS 500	PBS/PBS H 800	PBS/PBS H 1000	PBS 1500	PBS 2000	PBS 2500	PBS 3000	PBS 5000	PBS R 300	PBS R 500	PBS R/PBS RH 800	PBS R/PBS RH 1000	PBS R 1500	PBS R 2000	PBS R 2500	PBS R 3000	PBS R2 300	PBS R2 500	PBS R2/PBS R2H 800	PBS R2/PBS R2H 1000	PBS R2 1500	PBS R2 2000	PBS R2 2500	PBS R2 3000
Boiler heat carrier outlet	A, mm	G1½"/150	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/280	G1½"/380	G1½"/380	G1½"/380	G1½"/150	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/280	G1½"/380	G1½"/380	G1½"/150	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/280	G1½"/380	G1½"/380
Boiler heat carrier outlet	B, mm	G1½"/150	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/280	G1½"/380	G1½"/380	G1½"/380	G1½"/150	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/280	G1½"/380	G1½"/380	G1½"/150	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/280	G1½"/380	G1½"/380
Boiler heat carrier outlet	C, mm	G1½"/150	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/280	G1½"/380	G1½"/380	G1½"/380	G1½"/150	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/280	G1½"/380	G1½"/380	G1½"/150	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/280	G1½"/380	G1½"/380
Heat carrier outlet / Lower coil	D, mm	G1"/260	G1"/325	G1"/350	G1"/390	G1"/445	G1"/390	G1"/540	G1"/540	G1"/540	G1"/260	G1"/325	G1"/350	G1"/390	G1"/445	G1"/390	G1"/540	G1"/540	G1"/260	G1"/325	G1"/350	G1"/390	G1"/445	G1"/390	G1"/540	G1"/540
Boiler heat carrier	E, mm	G1½"/420	G1½"/430	G1½"/470	G1½"/500	G1½"/690	G1½"/770	G1½"/690	G1½"/690	G1½"/690	G1½"/420	G1½"/430	G1½"/470	G1½"/500	G1½"/690	G1½"/770	G1½"/690	G1½"/690	G1½"/420	G1½"/430	G1½"/470	G1½"/500	G1½"/690	G1½"/770	G1½"/690	G1½"/690
Sensor sleeve	F, mm	G½"/540	G½"/540	G½"/590	G½"/620	G½"/800	G½"/880	G½"/690	G½"/690	G½"/690	G½"/540	G½"/540	G½"/590	G½"/620	G½"/800	G½"/880	G½"/690	G½"/690	G½"/540	G½"/540	G½"/590	G½"/620	G½"/800	G½"/880	G½"/690	G½"/690
Sensor sleeve	G, mm		G½"/650	G½"/710	G½"/770	G½"/920	G½"/1030	G½"/1040	G½"/1040	G½"/1040		G½"/650	G½"/710	G½"/770	G½"/920	G½"/1030	G½"/1040	G½"/1040		G½"/650	G½"/710	G½"/770	G½"/920	G½"/1030	G½"/1040	G½"/1040
Heat carrier inlet / Lower coil	H, mm	G1"/660	G1"/775	G1"/845	G1"/930	G1"/1045	G1"/1160	G1"/1190	G1"/1190	G1"/1190	G1"/660	G1"/775	G1"/845	G1"/930	G1"/1045	G1"/1160	G1"/1190	G1"/1190	G1"/660	G1"/775	G1"/845	G1"/930	G1"/1045	G1"/1160	G1"/1190	G1"/1190
Boiler heat carrier/Electric heating element	I, mm	G1½"/770	G1½"/900	G1½"/930	G1½"/1050	G1½"/1280	G1½"/1265	G1½"/1340	G1½"/1340	G1½"/1340	G1½"/770	G1½"/900	G1½"/930	G1½"/1050	G1½"/1280	G1½"/1265	G1½"/1340	G1½"/1340	G1½"/770	G1½"/900	G1½"/930	G1½"/1050	G1½"/1280	G1½"/1265	G1½"/1340	G1½"/1340
Upper coil outlet	J, mm																	G1"/880	G1"/1030	G1"/1050	G1"/1210	G1"/1405	G1"/1375	G1"/1470	G1"/1720	
Sensor sleeve	K, mm	G½"/980	G½"/1140	G½"/1160	G½"/1320	G½"/1520	G½"/1520	G½"/1650	G½"/1900	G½"/1900	G½"/980	G½"/1140	G½"/1160	G½"/1320	G½"/1520	G½"/1520	G½"/1650	G½"/1900	G½"/980	G½"/1140	G½"/1160	G½"/1320	G½"/1520	G½"/1520	G½"/1650	G½"/1900
Sensor sleeve	L, mm	G½"/1150	G½"/1420	G½"/1520	G½"/1700	G½"/1790	G½"/1640	G½"/1930	G½"/2280	G½"/2280	G½"/1150	G½"/1420	G½"/1520	G½"/1700	G½"/1790	G½"/1640	G½"/1930	G½"/2280	G½"/1150	G½"/1420	G½"/1520	G½"/1700	G½"/1790	G½"/1640	G½"/1930	G½"/2280
Heat carrier inlet / Upper coil	M, mm	G1"/1080	G1"/1360	G1"/1410	G1"/1570	G1"/1720	G1"/1760	G1½"/1770	G1½"/2120	G1½"/2120	G1"/1080	G1"/1360	G1"/1410	G1"/1570	G1"/1720	G1"/1760	G1½"/1770	G1½"/2120	G1"/1080	G1"/1360	G1"/1410	G1"/1570	G1"/1720	G1"/1760	G1½"/1770	G1½"/2120
Boiler heat carrier inlet	N, mm	G1½"/1170	G1½"/1450	G1½"/1550	G1½"/1740	G1½"/1820	G1½"/1760	G1½"/1980	G1½"/2330	G1½"/2330	G1½"/1170	G1½"/1450	G1½"/1550	G1½"/1740	G1½"/1820	G1½"/1760	G1½"/1980	G1½"/2330	G1½"/1170	G1½"/1450	G1½"/1550	G1½"/1740	G1½"/1820	G1½"/1760	G1½"/1980	G1½"/2330
Boiler heat carrier inlet	O, mm	G1½"/1170	G1½"/1450	G1½"/1550	G1½"/1740	G1½"/1820	G1½"/1760	G1½"/1980	G1½"/2330	G1½"/2330	G1½"/1170	G1½"/1450	G1½"/1550	G1½"/1740	G1½"/1820	G1½"/1760	G1½"/1980	G1½"/2330	G1½"/1170	G1½"/1450	G1½"/1550	G1½"/1740	G1½"/1820	G1½"/1760	G1½"/1980	G1½"/2330
Air vent	P, mm	G1½"/1410	G1½"/1700	G1½"/1840	G1½"/2040	G1½"/2170	G1½"/2160	G1½"/2365	G1½"/2715	G1½"/2715	G1½"/1410	G1½"/1700	G1½"/1840	G1½"/2040	G1½"/2170	G1½"/2160	G1½"/2365	G1½"/2715	G1½"/1410	G1½"/1700	G1½"/1840	G1½"/2040	G1½"/2170	G1½"/2160	G1½"/2365	G1½"/2715
Boiler heat carrier	R, mm	G1½"/880	G1½"/1030	G1½"/1050	G1½"/1210	G1½"/1405	G1½"/1375	G1½"/1470	G1½"/1720	G1½"/1720	G1½"/880	G1½"/1030	G1½"/1050	G1½"/1210	G1½"/1405	G1½"/1375	G1½"/1470	G1½"/1720	G1½"/880	G1½"/1030	G1½"/1050	G1½"/1210	G1½"/1405	G1½"/1375	G1½"/1470	G1½"/1720
Boiler heat carrier	S, mm	G1½"/880	G1½"/1030	G1½"/1050	G1½"/1210	G1½"/1405	G1½"/1375	G1½"/1470	G1½"/1720	G1½"/1720	G1½"/880	G1½"/1030	G1½"/1050	G1½"/1210	G1½"/1405	G1½"/1375	G1½"/1470	G1½"/1720	G1½"/880	G1½"/1030	G1½"/1050	G1½"/1210	G1½"/1405	G1½"/1375	G1½"/1470	G1½"/1720

KSC series

Combi tanks
tank-in-tank construction

models:



KSC combi tank without coil



KSC 1 single coil combi tank



KSC 2 double coil combi tank

To produce and accumulate domestic hot water (DHW) and hot water for space-heating system. Tank-in-Tank construction - DHW tank protected with titanium enamel and anode + Buffer tank powering space-heating system. Allows utilization of up to three external heat sources and an optional electric heating element.

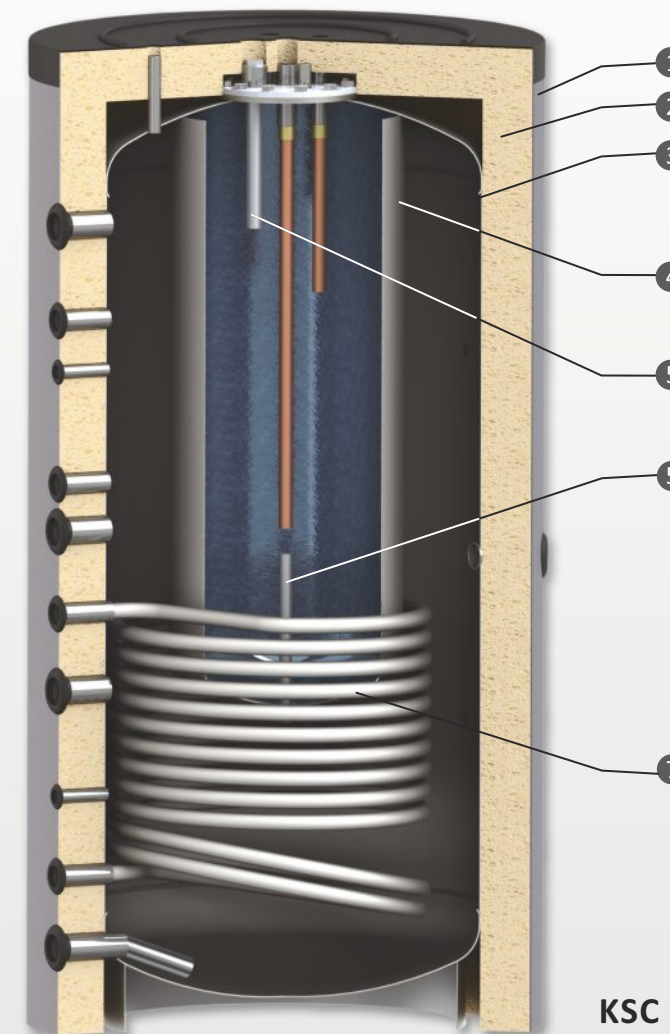
Product features:

- Removable High efficiency insulation with thickness 100 mm and outer casing of PVC with RAL 9006 color
- Multi-position mounting of temperature sensor
- Complex corrosion protection of DHW (domestic hot water) tank realized by means of titanium enamel and two anode protectors
- All threads are internal
- Easy installation
- Convenient inspection opening
- Heat exchanger coil/coils (KSC 1 /KSC 2) enables the unit to work with different heat sources.
- Optional kit for electric heating with nominal power 3kW; 4.5kW.

Modifications and sizes:

KSC	V	600/150	800/200	1000/220	1500/300
KSC 1	V	600/150	800/200	1000/220	1500/300
KSC 2	V	600/150	800/200	1000/220	1500/300

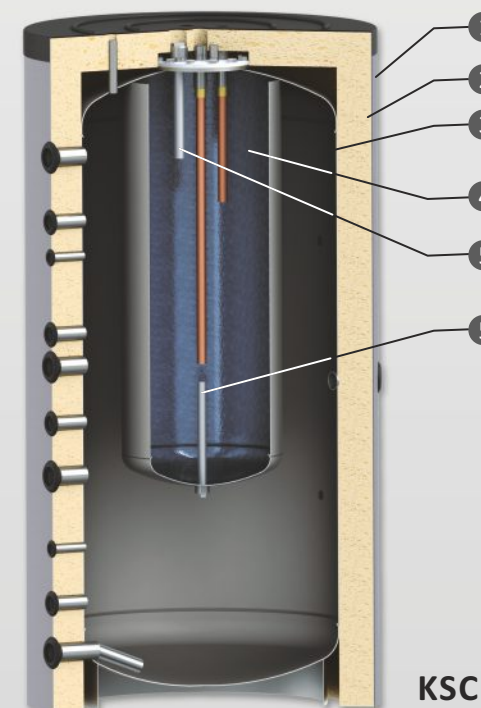
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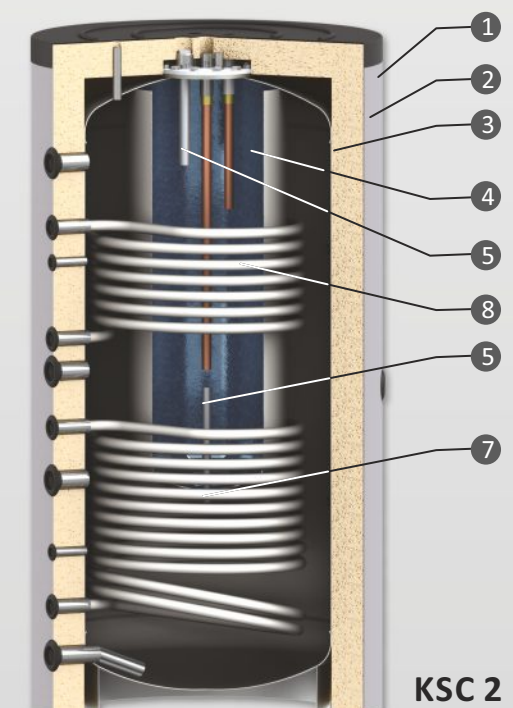
1. Aesthetic PVC jacket with color RAL 9006
2. Highly efficient thermal insulation
3. Water tank of low-carbon steel
4. DHW tank made of low carbon steel coated with titanium enamel (DIN 4753-3)
5. Anode protector (DIN 4753-6)
6. Safety valve, 8 bar
7. Lower coil (KSC 1/ KSC 2)
8. Upper coil (KSC 2)



KSC 1



KSC



KSC 2

KSC series

technical specifications

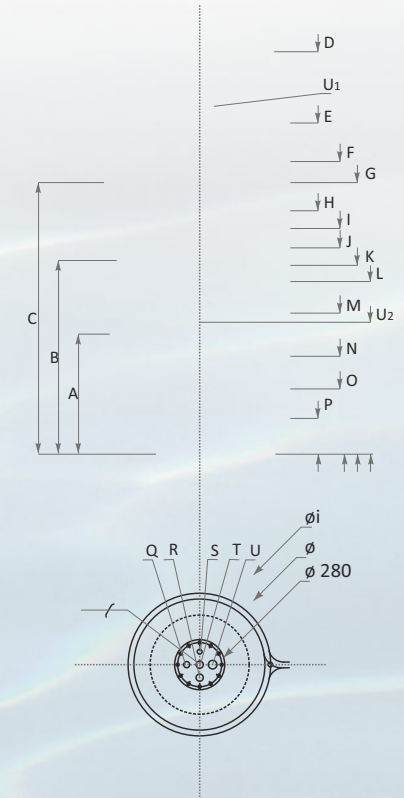
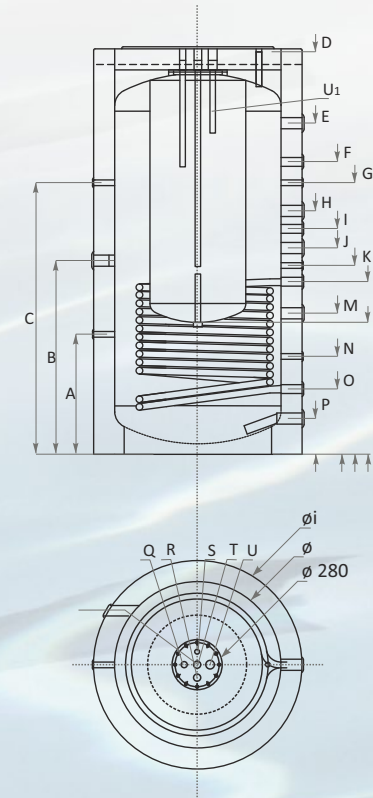
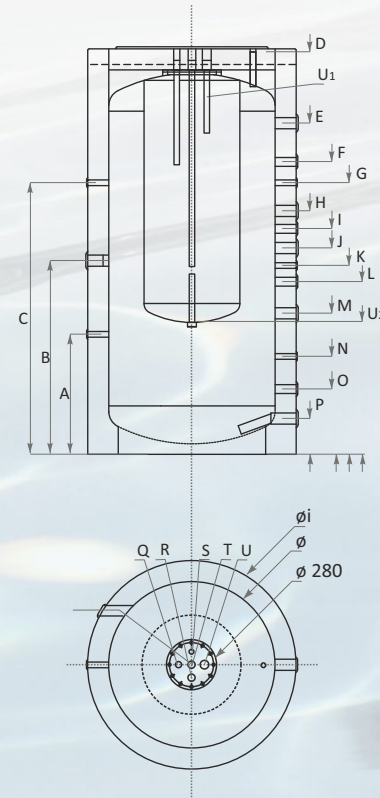
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	KSC 600/150	KSC 800/200	KSC 1000/220	KSC 1500/300	KSC 1 600/150	KSC 1 800/200	KSC 1 1000/220	KSC 1 1500/300	KSC 2 600/150	KSC 2 800/200	KSC 2 1000/220	KSC 2 1500/300	
Capacity	l	600	800	1000	1500	600	800	1000	1500	600	800	1000	1500
Buffer capacity/DHW tank capacity	l	450/150	600/200	780/220	1200/300	450/150	600/200	780/220	1200/300	450/150	600/200	780/220	1200/300
Height H / Min. vertical clearance	mm	1880/1970	1910/2020	2090/2185	2220/2375	1880/1970	1910/2020	2090/2185	2220/2375	1880/1970	1910/2020	2090/2185	2220/2375
Diameter D /with insulation	mm	ø 650/850	ø 790/990	ø 790/990	ø 1000/1200	ø 650/850	ø 790/990	ø 790/990	ø 1000/1200	ø 650/850	ø 790/990	ø 790/990	ø 1000/1200
Lower heat exchanger coil S1													
Heat exchange surface	m ²					1.7	2.9	3.0	3.4	1.7	2.9	3.0	3.4
Coil capacity	l					10.5	17.9	18.5	21.0	10.5	17.9	18.5	21.0
Upper heat exchanger coil S2													
Heat exchange surface	m ²									1.0	1.8	2.0	2.4
Coil capacity	l									6.2	11.1	12.3	14.8
Oper. pressure / max. coil temp.	bar/°C					16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110
Oper. pressure / max. buffer temp.	bar/°C	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95
Oper. pressure / max. DHW tank temp.	bar/°C	10/95	10/95	10/95	10/95	10/95	10/95	10/95	10/95	10/95	10/95	10/95	10/95
Recommended boiler size, connected to the buffer	kW	10-17	15-27	18-33	27-50	10-17	15-27	18-33	27-50	10-17	15-27	18-33	27-50
Thermometer			optional				optional				optional		
Anode protector		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Electric heater (optional)	kW	3/4.5	3/4.5	3/4.5	3/4.5	3/4.5	3/4.5	3/4.5	3/4.5	3/4.5	3/4.5	3/4.5	3/4.5
Weight	kg	154	178	199	386	184	213	241	428	195	237	267	460

KSC series

technical specifications



			KSC				KSC 1				KSC 2			
			600/150	800/200	1000/220	1500/300	600/150	800/200	1000/220	1500/300	600/150	800/200	1000/220	1500/300
DHW tank	Sensor sleeve	A, mm	G½"/440	G½"/570	G½"/580	G½"/875	G½"/440	G½"/570	G½"/580	G½"/875	G½"/440	G½"/570	G½"/580	G½"/875
	Electric heating element (optional)	B, mm	G1½"/860	G1½"/920	G1½"/1130	G1½"/1130	G1½"/860	G1½"/920	G1½"/1130	G1½"/1130	G1½"/860	G1½"/920	G1½"/1130	G1½"/1130
	Sensor sleeve	C, mm	G½"/1440	G½"/1290	G½"/1500	G½"/1700	G½"/1440	G½"/1290	G½"/1500	G½"/1700	G½"/1440	G½"/1290	G½"/1500	G½"/1700
	Air vent sleeve	D, mm	G½"/1880	G½"/1910	G½"/2090	G½"/2220	G½"/1880	G½"/1910	G½"/2090	G½"/2220	G½"/1880	G½"/1910	G½"/2090	G½"/2220
	Boiler heat carrier inlet/sleeve	E, mm	G1½"/1550	G1½"/1573	G1½"/1742	G1½"/1808	G1½"/1550	G1½"/1573	G1½"/1742	G1½"/1808	G1½"/1550	G1½"/1573	G1½"/1742	G1½"/1808
	Upper coil inlet S2/sleeve	F, mm	G1"/1300	G1"/1390	G1"/1520	G1"/1635	G1"/1300	G1"/1390	G1"/1520	G1"/1635	G1"/1300	G1"/1390	G1"/1520	G1"/1635
	Sensor sleeve	G, mm	G½"/1150	G½"/1290	G½"/1450	G½"/1525	G½"/1150	G½"/1290	G½"/1450	G½"/1525	G½"/1150	G½"/1290	G½"/1450	G½"/1525
	Boiler heat carrier / sleeve	H, mm				G1½"/1305				G1½"/1305				G1½"/1305
	Upper coil outlet S2	I, mm	G1"/1020	G1"/1072	G1"/1172	G1"/1225	G1"/1020	G1"/1072	G1"/1172	G1"/1225	G1"/1020	G1"/1072	G1"/1172	G1"/1225
	Boiler heat carrier / sleeve	J, mm	G1½"/910	G1½"/980	G1½"/1060	G1½"/1130	G1½"/910	G1½"/980	G1½"/1060	G1½"/1130	G1½"/910	G1½"/980	G1½"/1060	G1½"/1130
	Sleeve	K, mm				G½"/975				G½"/975				G½"/975
	Lower coil inlet S1/sleeve	L, mm	G1"/800	G1"/820	G1"/880	G1"/895	G1"/800	G1"/820	G1"/880	G1"/895	G1"/800	G1"/820	G1"/880	G1"/895
	Boiler heat carrier / sleeve	M, mm	G1½"/650	G1½"/670	G1½"/730	G1½"/765	G1½"/650	G1½"/670	G1½"/730	G1½"/765	G1½"/650	G1½"/670	G1½"/730	G1½"/765
	Sensor sleeve	N, mm	G½"/490	G½"/465	G½"/495	G½"/520	G½"/490	G½"/465	R½"/495	G½"/520	G½"/490	G½"/465	G½"/495	G½"/520
	Lower coil outlet S1/sleeve	O, mm	G1"/280	G1"/310	G1"/310	G1"/375	G1"/280	G1"/310	R1"/310	G1"/375	G1"/280	G1"/310	G1"/310	G1"/375
	Boiler heat carrier / sleeve	P, mm	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/150	G1½"/170	G1½"/170	G1½"/235
	Recirculation	Q, mm	G¾"/1880	G¾"/1910	G¾"/2090	G¾"/2220	G¾"/1880	G¾"/1910	G¾"/2090	G¾"/2220	G¾"/1880	G¾"/1910	G¾"/2090	G¾"/2220
	Hot water outlet	R, mm	G1"/1880	G1"/1910	G1"/2090	G1"/2220	G1"/1880	G1"/1910	G1"/2090	G1"/2220	G1"/1880	G1"/1910	G1"/2090	G1"/2220
Air vent sleeve	S, mm	G½"/1880	G½"/1910	G½"/2090	G½"/2200	G½"/1880	G½"/1910	G½"/2090	G½"/2200	G½"/1880	G½"/1910	G½"/2090	G½"/2200	
Cold water inlet	T, mm	G1"/1880	G1"/1910	G1"/2090	G1"/2220	G1"/1880	G1"/1910	G1"/2090	G1"/2220	G1"/1880	G1"/1910	G1"/2090	G1"/2220	
Anode protectors	U ₁ mm	G1¼"/1880	G1¼"/1910	G1¼"/2090	G1¼"/2220	G1¼"/1880	G1¼"/1910	G1¼"/2090	G1¼"/2220	G1¼"/1880	G1¼"/1910	G1¼"/2090	G1¼"/2220	
	U ₂ mm	G1¼"/850	G1¼"/607	G1¼"/647	G1¼"/881	G1¼"/850	G1¼"/607	G1¼"/647	G1¼"/881	G1¼"/850	G1¼"/607	G1¼"/647	G1¼"/881	

HYG series

Hygienic combi tanks

models:



HYG combi tank without coil



HYG R single coil combi tank



HYG R2 double coil combi tank

To produce and accumulate **s a n i t a r y** hot water and hot water for space-heating system. Coil-in-Tank construction- Flexible stainless-steel coil for sanitary hot water +Buffer tank powering space-heating system. Sanitary water heats up instantaneously as it flows through the large surface stainless coil. Thus water is delivered hot while still fresh and clean of depositions. Allows utilization of up to three external heat sources and an optional electric heating element.

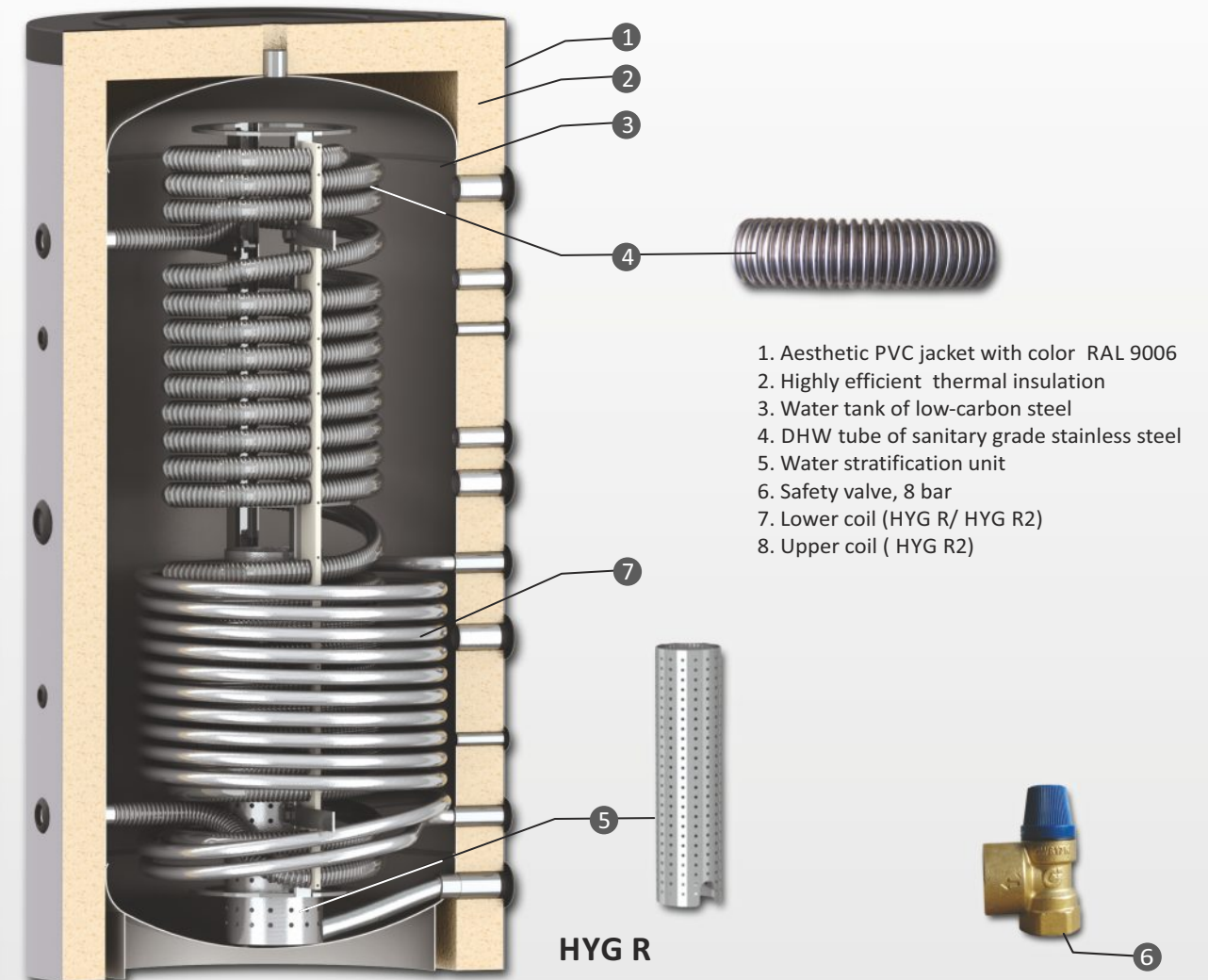
Product features:

- Removable High efficiency insulation with thickness 100 mm and outer casing of PVC with RAL 9006 color
- DHW tube of sanitary grade stainless steel, heats up instantaneously
- All threads are internal
Inlet/Outlet arrangement - 180 angle degrees
- Easy installation.
- Convenient inspection opening
- Heat exchanger coil/coils (HYG R/HYG R2) enables the unit to work with different heat sources.
- Optional kit for electric heating with nominal power 3kW; 4.5kW; 6kW and 7.5kW.

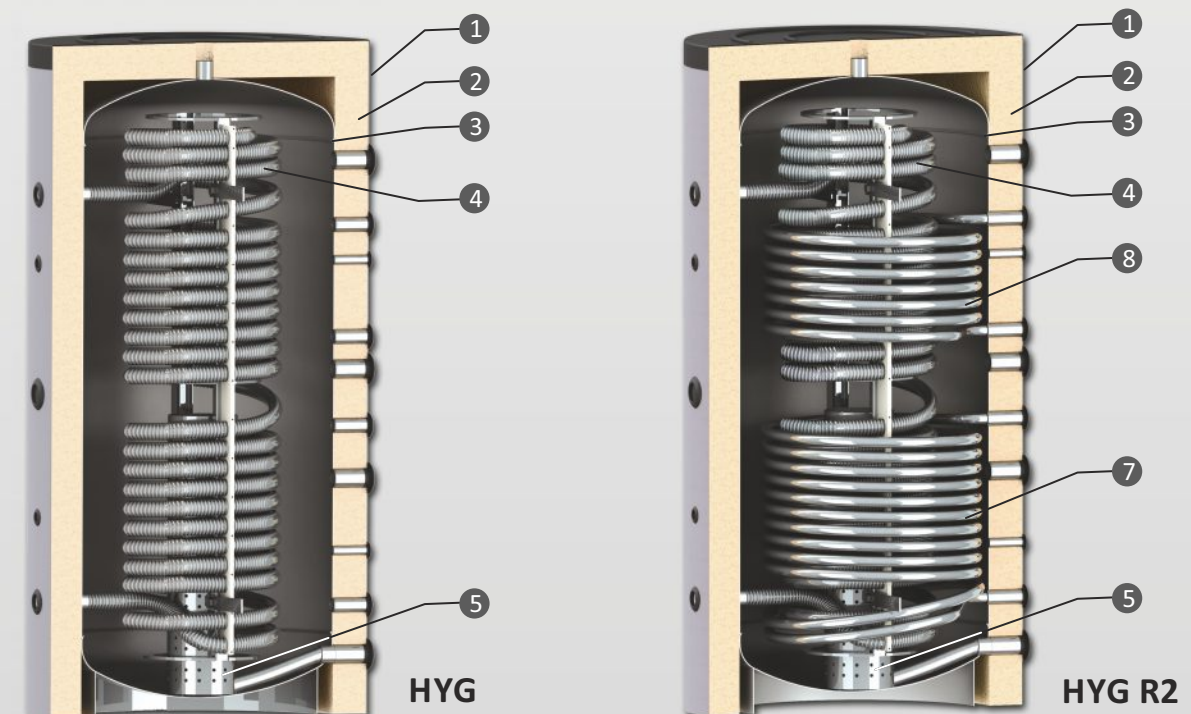
Modifications and sizes:

HYG	V	500/20	800/33	1000/33	1500/49
HYG R	V	500/20	800/33	1000/33	1500/49
HYG R2	V	500/20	800/33	1000/33	1500/49

SUNSYSTEM®



HYG R



HYG

HYG R2

HYG series

technical specifications

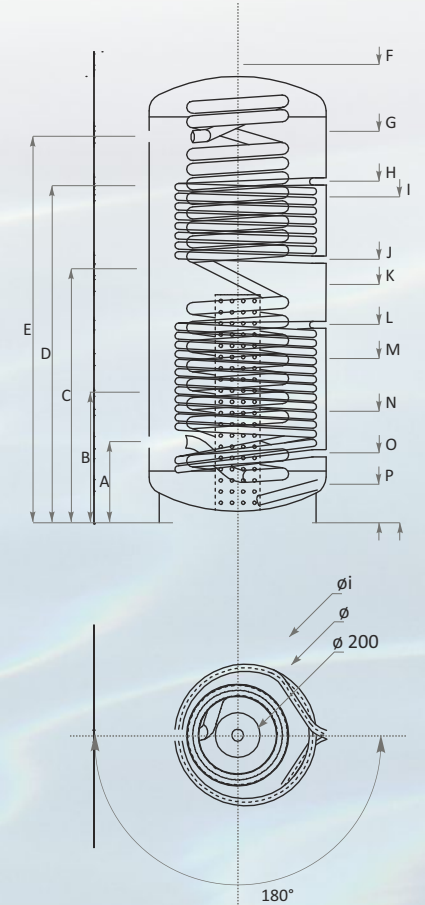
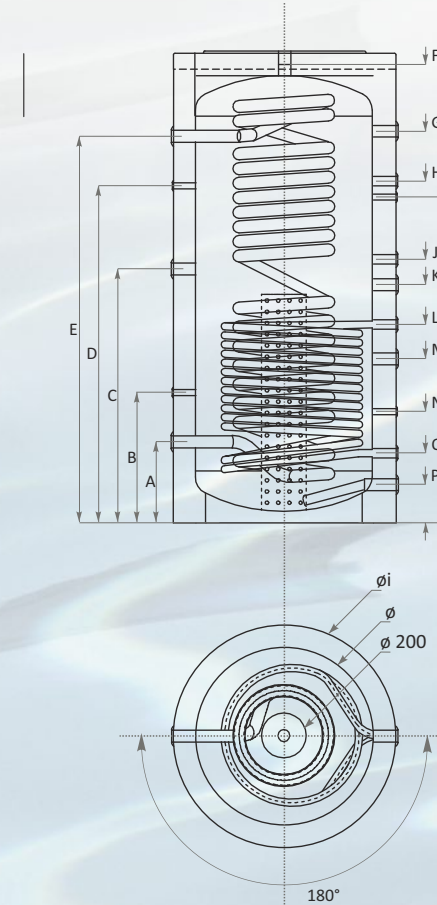
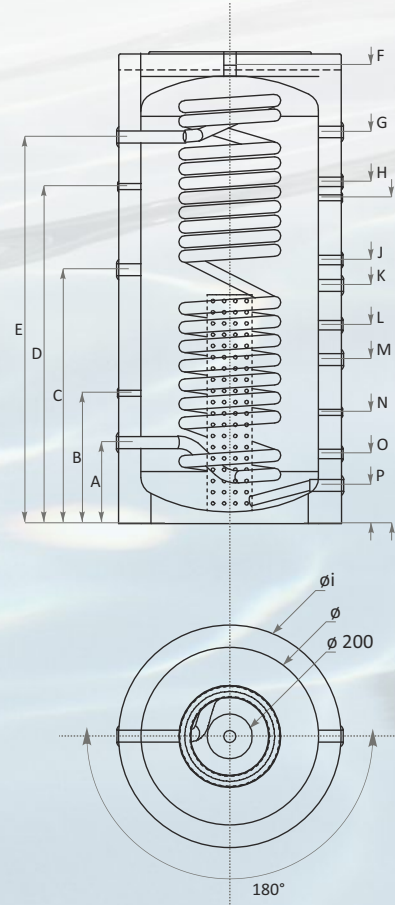
SUNSYSTEM®



		HYG 500/20	HYG 800/33	HYG 1000/33	HYG 1500/49	HYG R 500/20	HYG R 800/33	HYG R 1000/33	HYG R 1500/49	HYG R2 500/20	HYG R2 800/33	HYG R2 1000/33	HYG R2 1500/49
Capacity	l	500	800	1000	1500	500	800	1000	1500	500	800	1000	1500
Buffer capacity/DHW tube capacity	l	480/20	767/33	967/33	1451/49	480/20	767/33	967/33	1451/49	480/20	767/33	967/33	1451/49
Height H / Min. vertical clearance	mm	1610/1660	1860/1910	2010/2090	2170/2220	1610/1660	1860/1910	2010/2090	2170/2220	1610/1660	1860/1910	2010/2090	2170/2220
Diameter D /with insulation	mm	ø 650/850	ø 790/990	ø 790/990	ø 1000/1200	ø 650/850	ø 790/990	ø 790/990	ø 1000/1200	ø 650/850	ø 790/990	ø 790/990	ø 1000/1200
DHW tube surface	m ²	4,5	7,5	7,5	11	4,5	7,5	7,5	11	4,5	7,5	7,5	11
Lower heat exchanger coil S1 Heat exchange surface	m ²					1.7	2.9	3.0	3.4	1.7	2.9	3.0	3.4
Coil capacity	l					10.5	17.9	18.5	21.0	10.5	17.9	18.5	21.0
Upper heat exchanger coil S2 Heat exchange surface	m ²									1.0	1.8	2.0	2.4
Coil capacity	l									6.2	11.1	12.3	14.8
Operating pressure/Max. coil temp.	bar/°C					16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110
Operating pressure/Max. buffer temp.	bar/°C	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95
Operating pressure/Max. DHW tube temp.	bar/°C	6/95	6/95	6/95	6/95	6/95	6/95	6/95	6/95	6/95	6/95	6/95	6/95
Continuous outflow 10/45 °C when the buffer is charged to 65 °C with recommended boiler size, connected to the buffer	l kW	1350 44	1750 57	2300 75	3500 114	1350 44	1750 57	2300 75	3500 114	1350 44	1750 57	2300 75	3500 114
Single discharge capacity (up to 38 °C when the buffer is charged to 60 °C	l	375	580	790	1150	375	580	790	1150	375	580	790	1150
ΔT temp. difference b/n buffer and DHW at flow rate 30/40/50 l/min.	K	6/8/12	3,5/5/8	3,5/5/8	2/3/5	6/8/12	3,5/5/8	3,5/5/8	2/3/5	6/8/12	3,5/5/8	3,5/5/8	2/3/5
Water stratification unit	ø		200	200	200		200	200	200		200	200	200
Thermometer			optional				optional				optional		
Electric heater (optional)	kW		3 / 4.5 / 6 / 7.5				3 / 4.5 / 6 / 7.5				3 / 4.5 / 6 / 7.5		
Weight/insulation	kg	110/12,3	144/16,4	170/18	301/23,2	140/12,3	179/16,4	212/ 18	343/23,2	151/12,3	203/16,4	238/ 18	375/23,2

HYG series

technical specifications



		HYG 500/20	HYG 800/33	HYG 1000/33	HYG 1500/49	HYG R 500/20	HYG R 800/33	HYG R 1000/33	HYG R 1500/49	HYG R2 500/20	HYG R2 800/33	HYG R2 1000/33	HYG R2 1500/49
Cold water inlet HYG	A, mm	G1"/275	G1"/330	G1"/360	G1"/392	g1"/275	G1"/330	G1"/360	G1"/392	G1"/275	G1"/330	G1"/360	G1"/392
Sensor sleeve	B, mm	G½"/410	G½"/570	G½"/580	G½"/875	g½"/410	G½"/570	G½"/580	G½"/875	G½"/410	G½"/570	G½"/580	G½"/875
Electric heating element (optional)	C, mm	G1½"/790	G1½"/920	G1½"/1130	G1½"/1130	G1½"/790	G1½"/920	G1½"/1130	G1½"/1130	G1½"/790	G1½"/920	G1½"/1130	G1½"/1130
Sensor sleeve	D, mm	G½"/1120	G½"/1290	G½"/1500	G½"/1500	G½"/1120	G½"/1290	G½"/1500	G½"/1500	G½"/1120	G½"/1290	G½"/1500	G½"/1500
Hot water outlet HYG	E, mm	G1"/1308	G1"/1486	G1"/1581	G1"/1700	G1"/1308	G1"/1486	G1"/1581	G1"/1700	G1"/1308	G1"/1486	G1"/1581	G1"/1700
Air vent sleeve	F, mm	G1½"/1610	G1½"/1860	G1½"/2040	G1½"/2170	G1½"/1610	G1½"/1860	G1½"/2040	G1½"/2170	G1½"/1610	G1½"/1860	G1½"/2040	G1½"/2170
Boiler heat carrier inlet	G, mm	G1½"/1370	G1½"/1573	G1½"/1742	G1½"/18008	G1½"/1370	G1½"/1573	G1½"/1742	G1½"/18008	G1½"/1370	G1½"/1573	G1½"/1742	G1½"/18008
Upper coil inlet S2/sleeve	H, mm	G1½"/1270	G1½"/1389	G1½"/1521	G1½"/1653	G1½"/1270	G1½"/1389	G1½"/1521	G1½"/1653	G1½"/1270	G1½"/1389	G1½"/1521	G1½"/1653
Sensor sleeve	I, mm	G½"/1120	G½"/1290	G½"/1450	G½"/1525	G½"/1120	G½"/1290	G½"/1450	G½"/1525	G½"/1120	G½"/1290	G½"/1450	G½"/1525
Upper coil outlet S2/sleeve	J, mm	G1½"/990	G1½"/1071	G1½"/1172	G1½"/1305	G1½"/990	G1½"/1071	G1½"/1172	G1½"/1305	G1½"/990	G1½"/1071	G1½"/1172	G1½"/1305
Boiler heat carrier	K, mm	G1½"/880	G1½"/980	G1½"/1060	G1½"/1085	G1½"/880	G1½"/980	G1½"/1060	G1½"/1085	G1½"/880	G1½"/980	G1½"/1060	G1½"/1085
Lower coil inlet S1/sleeve	L, mm	G1"/770	G1"/820	G1"/880	G1"/895	G1"/770	G1"/820	G1"/880	G1"/895	G1"/770	G1"/820	G1"/880	G1"/895
Boiler heat carrier	M, mm	G1½"/620	G1½"/670	G1½"/730	G1½"/765	G1½"/620	G1½"/670	G1½"/730	G1½"/765	G1½"/620	G1½"/670	G1½"/730	G1½"/765
Sensor sleeve	N, mm	G½"/460	G½"/465	G½"/495	G½"/520	G½"/460	G½"/465	G½"/495	G½"/520	G½"/460	G½"/465	G½"/495	G½"/520
Lower coil outlet S1/sleeve	O, mm	G1"/250	G1"/310	G1"/310	G1"/375	G1"/250	G1"/310	G1"/310	G1"/375	G1"/250	G1"/310	G1"/310	G1"/375
Boiler heat carrier outlet	P, mm	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/150	G1½"/170	G1½"/170	G1½"/235

HYG B series

Hygienic
combi tanks

models:



HYG B combi tank without coil



HYG BR single coil combi tank



HYG BR2 double coil combi tank

To produce and accumulate **s a n i t a r y** hot water and hot water for space-heating system. Coil-in-Tank construction- Flexible stainless-steel coil for sanitary hot water +Buffer tank powering space-heating system. Sanitary water heats up instantaneously as it flows through the large surface stainless coil. Thus water is delivered hot while still fresh and clean of depositions. Allows utilization of up to three external heat sources and an optional electric heating element.

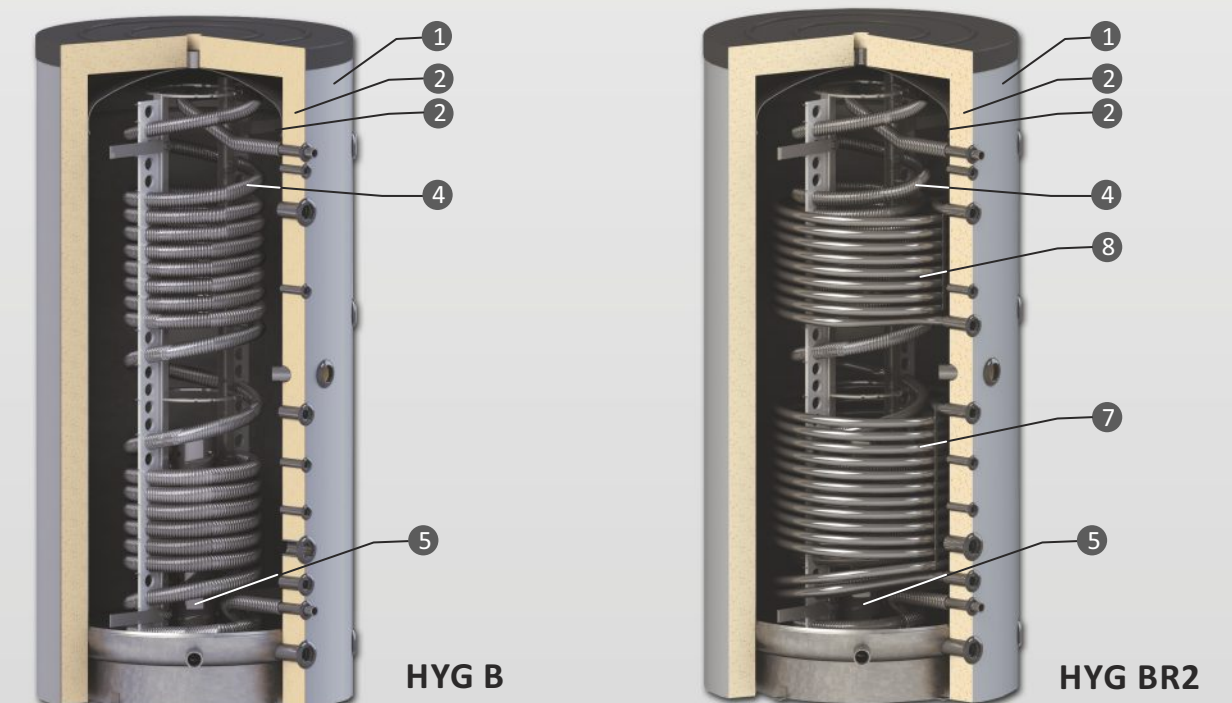
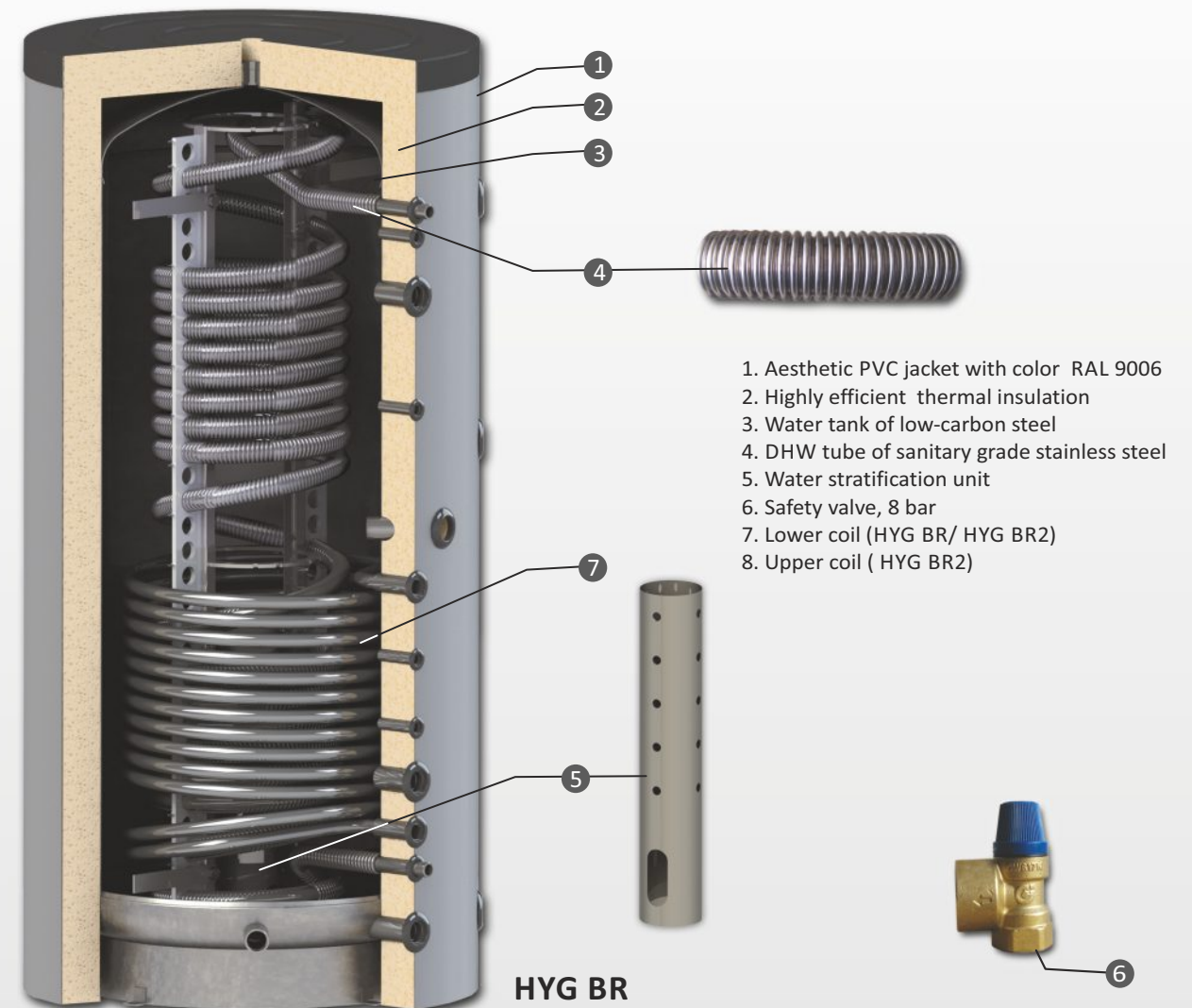
Product features:

- Removable High efficiency insulation with thickness 100 mm and outer casing of PVC with RAL 9006 color
- DHW tube of sanitary grade stainless steel, heats up instantaneously
- All threads are internal
Inlet/Outlet arrangement - 90 angle degrees for easy and convenient installation.
Possible installation in the corner of boiler room.
- Easy installation.
- Convenient inspection opening
- Heat exchanger coil/coils (HYG BR/HYG BR2) enables the unit to work with different heat sources.
- Optional kit for electric heating with nominal power 3kW; 4.5kW; 6kW and 7.5kW.

Modifications and sizes:

HYG B	V	500/27	800/27	1000/27	1500/50
HYG BR	V	500/27	800/27	1000/27	1500/50
HYG BR2	V	500/27	800/27	1000/27	1500/50

SUNSYSTEM®



HYG B series

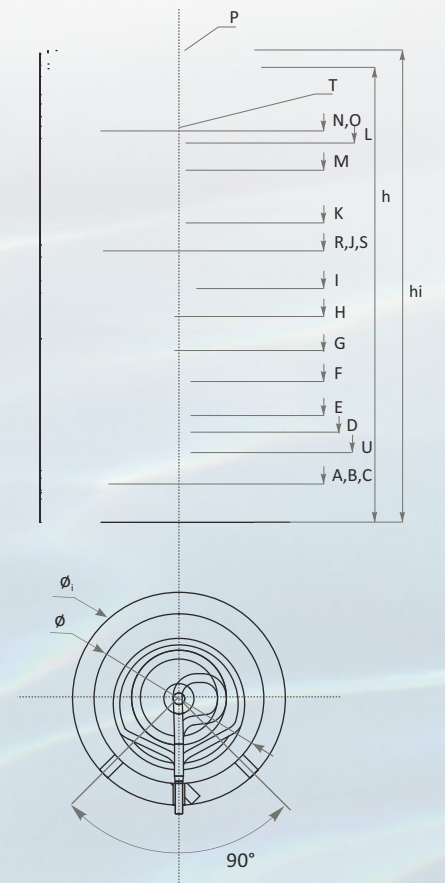
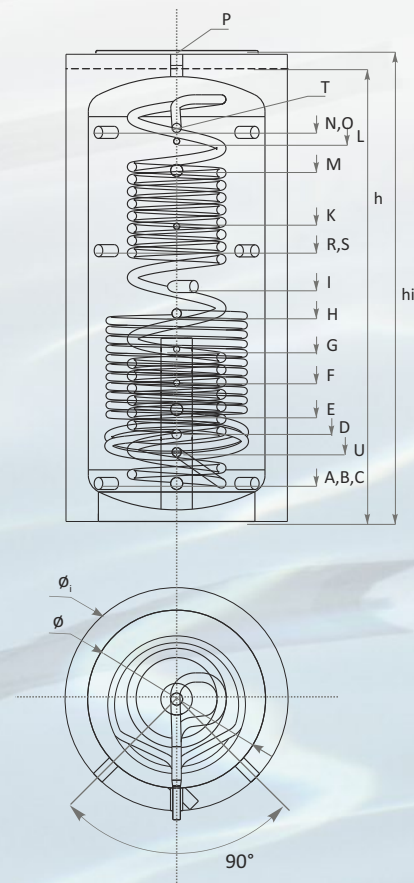
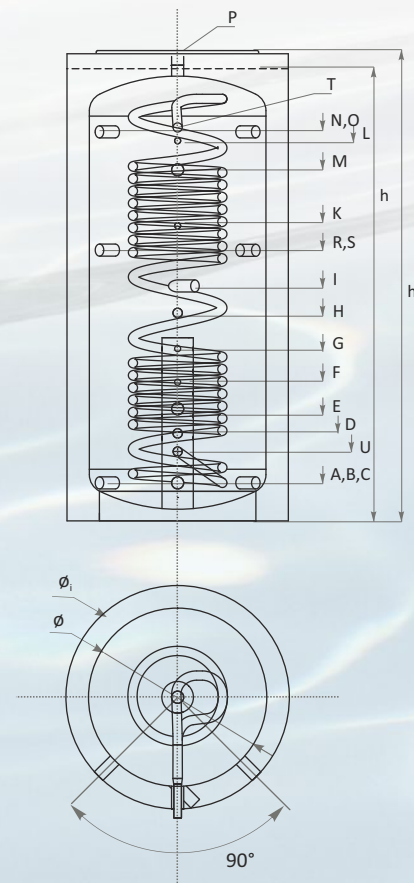
technical specifications



		HYG B 500/27	HYG B 800/27	HYG B 1000/27	HYG B 1500/50	HYG BR 500/28	HYG BR 800/28	HYG BR 1000/28	HYG BR 1500/48	HYG BR2 500/28	HYG BR2 800/28	HYG BR2 1000/28	HYG BR2 1500/48			
Capacity	l	500	800	1000	1500	500	800	1000	1500	500	800	1000	1500			
Buffer capacity/DHW tube capacity	l	473/27	773/27	973/27	1450/50	473/27	773/27	973/27	1450/50	473/27	773/27	973/27	1450/50			
Height h / with insulation hi	mm	1700/1750	1840/1890	2040/2090	2170/2220	1700/1750	1840/1890	2040/2090	2170/2220	1700/1750	1840/1890	2040/2090	2170/2220			
Min. vertical clearance	mm	1720	1865	2074	2262	1720	1865	2074	2262	1720	1865	2074	2262			
Diameter D /with insulation	mm	ø 650/850	ø 790/990	ø 790/990	ø 1000/1200	ø 650/850	ø 790/990	ø 790/990	ø 1000/1200	ø 650/850	ø 790/990	ø 790/990	ø 1000/1200			
DHW tube surface	m ²	6.10	6.10	6.10	11,5	6.10	6.10	6.10	11,5	6.10	6.10	6.10	11,5			
Lower heat exchanger coil S1 Heat exchange surface	m ²					1.7	2.4	2.48	3.4	1.7	2.4	2.48	3.4			
Coil capacity	l					10.2	14.3	15.2	20.6	10.2	14.3	15.2	20.6			
Upper heat exchanger coil S2 Heat exchange surface	m ²									1.0	1.8	1.71	2.0			
Coil capacity	l									6.2	10.46	10.5	12.1			
Operating pressure/Max. coil temp.	bar/°C					16/110	16/110	16/110	16/110	16/110	16/110	16/110	16/110			
Operating pressure/Max. buffer temp.	bar/°C	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95	3/95			
Operating pressure/Max. DHW tube temp.	bar/°C	6/95	6/95	6/95	6/95	6/95	6/95	6/95	6/95	6/95	6/95	6/95	6/95			
Continuous outflow 10/45 °C when the buffer is charged to 65°C with recommended boiler size, connected to the buffer	l	1350	1750	2300	3500	1350	1750	2300	3500	1350	1750	2300	3500			
	kW	44	57	75	114	44	57	75	114	44	57	75	114			
Single discharge capacity (up to 38 °C when the buffer is charged to 60 °C	l	375	580	790	1150	375	580	790	1150	375	580	790	1150			
ΔT temp. difference b/n buffer and DHW at flow rate 30/40/50 l/min.	K	6/8/12	3,5/5/8	3,5/5/8	2/3/5	6/8/12	3,5/5/8	3,5/5/8	2/3/5	6/8/12	3,5/5/8	3,5/5/8	2/3/5			
Water stratification unit	ø	140	140	140	140	140	140	140	140	140	140	140	140			
Thermometer			optional					optional					optional			
Electric heater (optional)	kW		3 / 4.5 / 6 / 7.5					3 / 4.5 / 6 / 7.5					3 / 4.5 / 6 / 7.5			
Weight/insulation	kg	135/12,3	165/16,4	175 / 18	290/23,2	150/12,3	170/16,4	200/18	290/23,2	160/12,3	200/16,4	230 / 18	360/23,2			

HYG B series

technical specifications



		HYG B 500/27	HYG B 800/27	HYG B 1000/27	HYG B 1500/50	HYG BR 500/28	HYG BR 800/28	HYG BR 1000/28	HYG BR 1500/48	HYG BR2 500/28	HYG BR2 800/28	HYG BR2 1000/28	HYG BR2 1500/48
Boiler heat carrier outlet	A, mm	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/150	G1½"/170	G1½"/170	G1½"/235
Boiler heat carrier outlet	B, mm	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/150	G1½"/170	G1½"/170	G1½"/235
Boiler heat carrier outlet	C, mm	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/150	G1½"/170	G1½"/170	G1½"/235	G1½"/150	G1½"/170	G1½"/170	G1½"/235
Heat carrier outlet/Lower coil S1	D, mm	G1"/325	G1"/350	G1"/390	G1"/445	G1"/325	G1"/350	G1"/390	G1"/445	G1"/325	G1"/350	G1"/390	G1"/445
Boiler heat carrier	E, mm	G1½"/430	G1½"/470	G1½"/500	G1½"/690	G1½"/430	G1½"/470	G1½"/500	G1½"/690	G1½"/430	G1½"/470	G1½"/500	G1½"/690
Sensor sleeve	F, mm	G½"/540	G½"/590	G½"/620	G½"/800	G½"/540	G½"/590	G½"/620	G½"/800	G½"/540	G½"/590	G½"/620	G½"/800
Sensor sleeve	G, mm	G½"/650	G½"/710	G½"/770	G½"/920	G½"/650	G½"/710	G½"/770	G½"/920	G½"/650	G½"/710	G½"/770	G½"/920
Heat carrier inlet/ Lower coil S1	H, mm	G1"/775	G1"/845	G1"/930	G1"/1045	G1"/775	G1"/845	G1"/930	G1"/1045	G1"/775	G1"/845	G1"/930	G1"/1045
Boiler heat carrier/Electric heating element	I, mm	G1½"/900	G1½"/930	G1½"/1050	G1½"/1280	G1½"/900	G1½"/930	G1½"/1050	G1½"/1280	G1½"/900	G1½"/930	G1½"/1050	G1½"/1280
Heat carrier outlet/ Upper coil S2	J, mm									G1"/1030	G1"/1050	G1"/1210	G1"/1405
Sensor sleeve	K, mm	G½"/1140	G½"/1160	G½"/1320	G½"/1520	G½"/1140	G½"/1160	G½"/1320	G½"/1520	G½"/1140	G½"/1160	G½"/1320	G½"/1520
Sensor sleeve	L, mm	G½"/1420	G½"/1520	G½"/1700	G½"/1790	G½"/1420	G½"/1520	G½"/1700	G½"/1790	G½"/1420	G½"/1520	G½"/1700	G½"/1790
Heat carrier inlet/ Upper coil S2	M, mm	G1½"/1360	G1½"/1410	G1½"/1570	G1½"/1720	G1½"/1360	G1½"/1410	G1½"/1570	G1½"/1720	G1½"/1360	G1½"/1410	G1½"/1570	G1½"/1720
Boiler heat carrier inlet	N, mm	G1½"/1450	G1½"/1550	G1½"/1740	G1½"/1820	G1½"/1450	G1½"/1550	G1½"/1740	G1½"/1820	G1½"/1450	G1½"/1550	G1½"/1740	G1½"/1820
Boiler heat carrier inlet	O, mm	G1½"/1450	G1½"/1550	G1½"/1740	G1½"/1820	G1½"/1450	G1½"/1550	G1½"/1740	G1½"/1820	G1½"/1450	G1½"/1550	G1½"/1740	G1½"/1820
Air vent	P, mm	G1½"/1700	G1½"/1840	G1½"/2040	G1½"/2170	G1½"/1700	G1½"/1840	G1½"/2040	G1½"/2170	G1½"/1700	G1½"/1840	G1½"/2040	G1½"/2170
Boiler heat carrier	R, mm	G1½"/1030	G1½"/1050	G1½"/1210	G1½"/1405	G1½"/1030	G1½"/1050	G1½"/1210	G1½"/1405	G1½"/1030	G1½"/1050	G1½"/1210	G1½"/1405
Boiler heat carrier	S, mm	G1½"/1030	G1½"/1050	G1½"/1210	G1½"/1405	G1½"/1030	G1½"/1050	G1½"/1210	G1½"/1405	G1½"/1030	G1½"/1050	G1½"/1210	G1½"/1405
Hot water outlet HYG	T, mm	G1"/1480	G1"/1590	G1"/1760	G1"/1850	G1"/1480	G1"/1590	G1"/1760	G1"/1850	G1"/1480	G1"/1590	G1"/1760	G1"/1850
Cold water inlet HYG	U, mm	G1"/250	G1"/270	G1"/310	G1"/345	G1"/250	G1"/270	G1"/310	G1"/345	G1"/250	G1"/270	G1"/310	G1"/345

ST series

Solar ready
water heaters



model:

ST FC
solar ready water heater
with integrated solar station
and solar controller

A pre-assembled compact kit of water heater with twin-line solar station and solar controller. Set up a solar thermal system with minimum effort and installation expenses.

Product features:

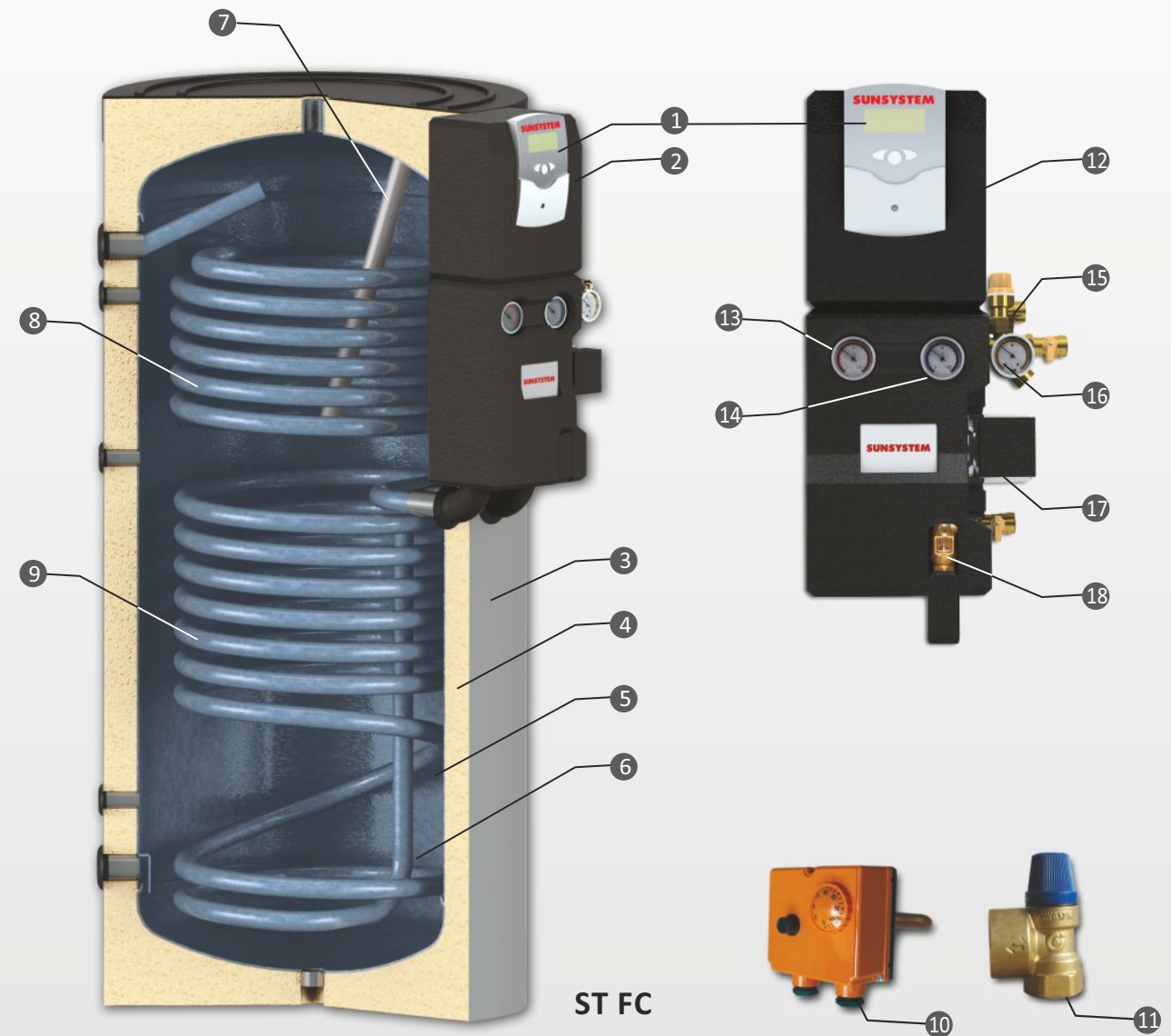
- Integrated twin line solar station with electronic solar controller.
- High efficiency insulation and outer casing of PVC with RAL 9006 color.
- Multi-position mounting of temperature sensor
- All threads are internal.
- Complex corrosion protection realized by means of titanium enamel and anode protector.
- Two heat exchanger coils.
- Easy installation.
- Convenient inspection opening.
- Optional kit for electric heating with nominal power 3kW, 4.5kW, 6kW or 7.5kW.

Modifications and sizes:

ST FC V 200 300 400 500



SUNSYSTEM[®]



1. Solar controller
2. Solar station
3. Aesthetic PVC jacket with color RAL 9006
4. Highly efficient thermal insulation
5. Water tank of low-carbon steel
6. Titanium enamel (DIN 4753-3)
7. Anode protector (DIN 4753-6)
8. Upper coil
9. Lower coil
10. Thermostat with integrated thermal protection
11. Safety valve, 8 bar

12. Thermal insulation casing
13. Return temperature indicator
14. Flow temperature indicator
15. Pressure relief valve
16. Pressure gauge
17. Solar circulation pump
18. Flow meter

ST series

Solar ready
water heaters



model:

STX
solar ready water heater
with integrated solar station,
solar controller and
expansion tank

A pre-assembled compact kit of water heater with twin-line solar station, solar controller and expansion tank. Set up a solar thermal system with minimum effort and installation expenses.

Product features:

- Integrated twin line solar station with electronic solar controller and expansion tank
- High efficiency insulation and outer casing of PVC with RAL 9006 color.
- Multi-position mounting of temperature sensor
- All threads are internal.
- Complex corrosion protection realized by means of titanium enamel and anode protector.
- Two heat exchanger coils.
- Easy installation.
- Convenient inspection opening.
- Optional kit for electric heating with nominal power 3kW, 4.5kW, 6kW or 7.5kW.

Modifications and sizes:

STX V 200 300 400 500



SUNSYSTEM®

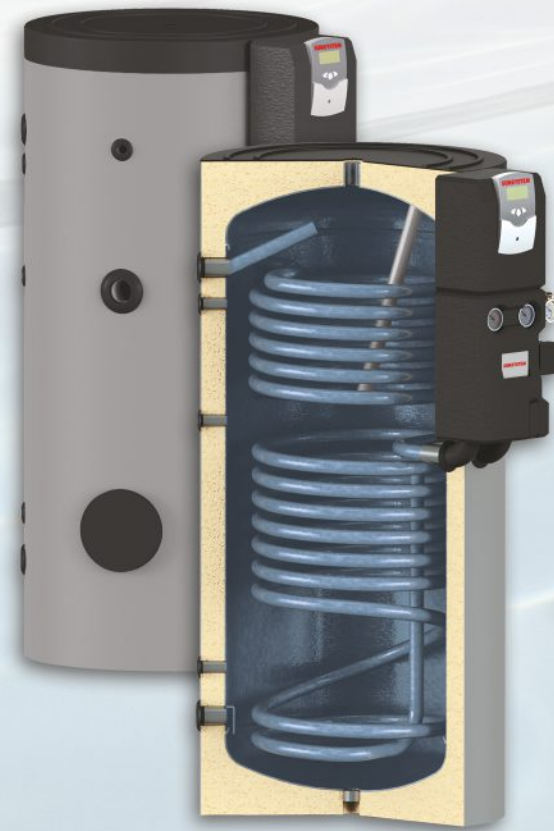


1. Front panel
2. Solar controller
3. Solar station
4. Expansion vessel
5. Aesthetic PVC jacket with color RAL 9006
6. Highly efficient thermal insulation
7. Anode protector (DIN 4753-6)
8. Water tank of low-carbon steel
9. Titanium enamel (DIN 4753-3)
10. Upper coil
11. Lower coil
12. Thermostat with integrated thermal protection
13. Safety valve, 8 bar

14. Thermal insulation casing
15. Return temperature indicator
16. Flow temperature indicator
17. Pressure relief valve
18. Pressure gauge
19. Solar circulation pump
20. Flow meter

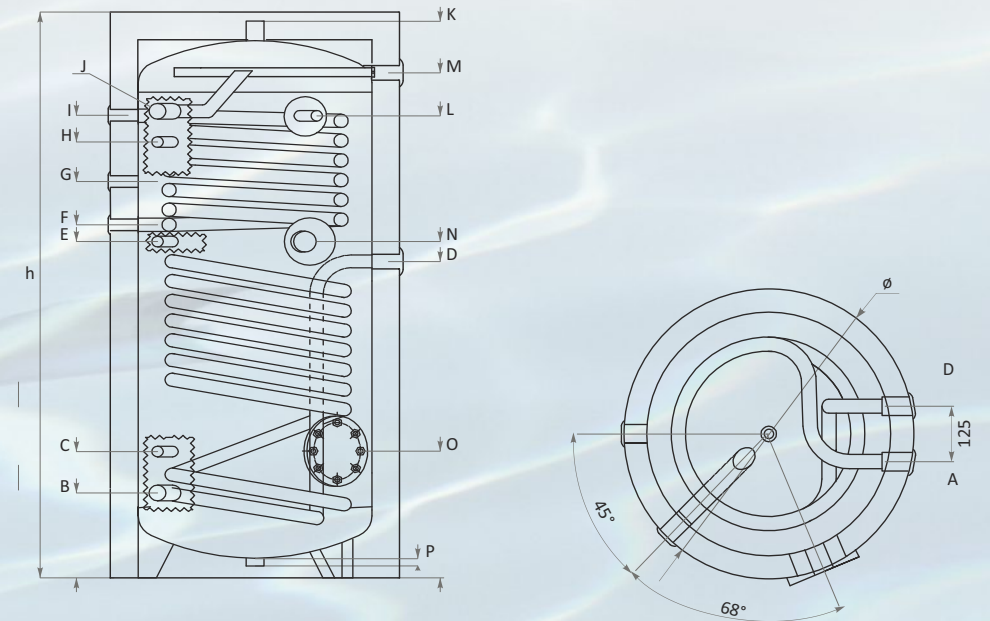
ST series

technical specifications



Solar station model ST FC

Solar controller: DeltaSol BS
Circulation pump: WILO Star ST15/6 Eco
Nominal size: DN 20
Material: Fittings brass, Sealings: Viton/Teflon, Insulation: EPP
Safety valve 6 bar
Spring pressure of non-return valve: 2 x 200mm head = 400mm head in total
Flow meter : 1 ... 15 liters/min.
Air vent ✓
Max. temperature: +110 °C, peak temperature +180 °C
Connections: ¾" IT



		ST FC 200	ST FC 300	ST FC 400	ST FC 500	
Lower S1/ Upper S2 Heat exch. coil	Capacity	l	200	300	400	500
	Height	mm	1340	1420	1470	1720
	Diameter	mm	ø 560	ø 660	ø 750	ø 750
	Operating pressure / Max. temperature	bar/°C	8/95	8/95	8/95	8/95
	Test pressure of tank	bar	8	8	8	8
	Heat exchange surface S1/S2	m²	0.9/0.6	1.2/0.9	1.5/1	1.8/1.2
	Coil capacity S1/S2	l	5.55/3.70	7.40/5.55	9.25/6.17	11.10/7.40
	Prolonged power acc. to DIN 4708; 80/60/45 °C, S1/S2	kW m³/h	29/18 0.71/0.44	53/21 1.30/0.52	62/27 1.52/0.66	72/34 1.77/0.84
	NL – power coefficient at 60°C		4.5/1.5	11/2	13/2.2	18/2.8
	Pressure drop Δp	mbar	75/55	120/70	180/20	210/90
	Operating pressure / Max. coil temperature	bar/°C	16/110	16/110	16/110	16/110
	Test pressure	bar	25	25	25	25
	Electric heater (optional)	kW	3	4.5	6	7.5
	Weight	kg	103	125	167	192
	Solar station		✓	✓	✓	✓

		ST FC 200	ST FC 300	ST FC 400	ST FC 500
Lower coil outlet	A, mm	G1" 692	G1" 805	G1" 850	G1" 960
Cold water inlet	B, mm	G1" 202	G1" 215	G1¼" 270	G¾" 270
Sensor sleeve	C, mm	G½" 302	G½" 320	G½" 450	G¾" 450
Lower coil inlet	D, mm	G1" 692	G1" 805	G1" 850	G1" 960
Sensor sleeve	E, mm	G½" 752	G½" 852	G½" 901	G¾" 1011
Upper coil outlet	F, mm	G1" 812	G1" 894	G1" 952	G1" 1062
Recirculation	G, mm	G¾" 987	G¾" 1007	G1" 1105	G1" 1206
Sensor sleeve for thermostat	H, mm	G½" 1037	G½" 1104	G½" 1054	G¾" 1206
Upper coil inlet	I, mm	G1" 1112	G1" 1170	G1" 1210	G1" 1350
Hot water outlet	J, mm	G1" 1168	G1" 1182	G1¼" 1240	G¾" 1453
Air vent sleeve	K, mm	G1" 1340	G1" 1410	G1" 1460	G1" 1710
Anode protector	L, mm	G1¼" 1340	G1¼" 1410	G1¼" 1318	G1¼" 1568
Sensor sleeve	M, mm	G½" 1138	G½" 1170	G½" 1452	G¾" 1453
Electric heating element	N, mm	G1½" 752	G1½" 852	G1½" 901	G1½" 1011
Inspection opening	O ^ø mm	110/180 309	110/180 320	110/180 450	110/180 450
Drain sleeve	P, mm	30	30	30	30

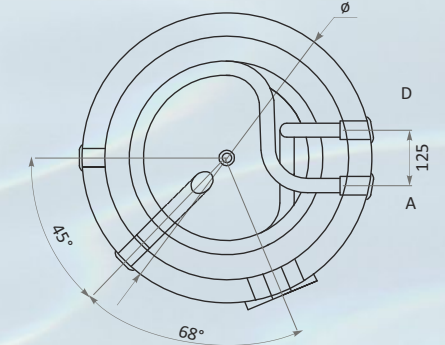
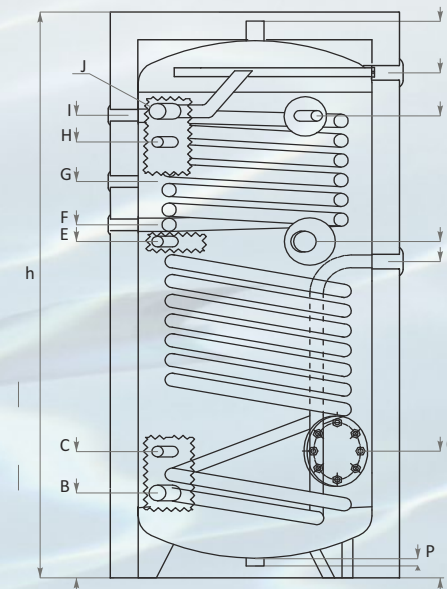
ST series

technical specifications



Solar station model STX

Solar controller: DeltaSol BS	
Circulation pump: WILO Star ST15/6 Eco	
Nominal size: DN 20	
Material: Fittings brass, Sealings: Viton/Teflon, Insulation: EPP	
Safety valve 6 bar	
Spring pressure of non-return valve: 2 x 200mm head = 400mm head in total	
Flow meter : 1 ... 15 liters/min.	
Air vent	✓
Max. temperature: +110 °C, peak temperature +180 °C	
Connections: ¾" IT	
Expansion vessel	✓



		STX 200	STX 300	STX 400	STX 500	
Lower S1 / Upper S2 Heat exch. coil	Capacity	l	200	300	400	500
	Height	mm	1340	1420	1470	1720
	Diameter	mm	ø 560	ø 660	ø 750	ø 750
	Operating pressure / Max. temperature	bar/°C	8/95	8/95	8/95	8/95
	Test pressure of tank	bar	8	8	8	8
	Heat exchange surface S1/S2	m²	0.9/0.6	1.2/0.9	1.5/1	1.8/1.2
	Coil capacity S1/S2	l	5.55/3.70	7.40/5.55	9.25/6.17	11.10/7.40
	Prolonged power acc. to DIN 4708; 80/60/45 °C, S1/S2	kW m³/h	29/18 0.71/0.44	53/21 1.30/0.52	62/27 1.52/0.66	72/34 1.77/0.84
	NL – power coefficient at 60°C		4.5/1.5	11/2	13/2.2	18/2.8
	Pressure drop Δp	mbar	75/55	120/70	180/20	210/90
	Operating pressure / Max. coil temperature	bar/°C	16/110	16/110	16/110	16/110
	Test pressure	bar	25	25	25	25
	Electric heater (optional)	kW	3	4.5	6	7.5
Weight	kg	110	132	174	199	
Solar station		✓	✓	✓	✓	
Expansion vessel, capacity	l	12	18	24	24	

		STX 200	STX 300	STX 400	STX 500
Lower coil outlet	A, mm	G1" 692	G1" 805	G1" 850	G1" 960
Cold water inlet	B, mm	G1" 202	G1" 215	G1¼" 270	G½" 270
Sensor sleeve	C, mm	G½" 302	G½" 320	G½" 450	G½" 450
Lower coil inlet	D, mm	G1" 692	G1" 805	G1" 850	G1" 960
Sensor sleeve	E, mm	G½" 752	G½" 852	G½" 901	G½" 1011
Upper coil outlet	F, mm	G1" 812	G1" 894	G1" 952	G1" 1062
Recirculation	G, mm	G¾" 987	G¾" 1007	G1" 1105	G1" 1206
Sensor sleeve for thermostat	H, mm	G½" 1037	G½" 1104	G½" 1054	G½" 1206
Upper coil inlet	I, mm	G1" 1112	G1" 1170	G1" 1210	G1" 1350
Hot water outlet	J, mm	G1" 1168	G1" 1182	G1¼" 1240	G½" 1453
Air vent sleeve	K, mm	G1" 1340	G1" 1410	G1" 1460	G1" 1710
Anode protector	L, mm	G1¼" 1340	G1¼" 1410	G1¼" 1318	G1¼" 1568
Sensor sleeve	M, mm	G½" 1138	G½" 1170	G½" 1452	G½" 1453
Electric heating element	N, mm	G1½" 752	G1½" 852	G1½" 901	G1½" 1011
Inspection opening	Ø mm	110/180 309	110/180 320	110/180 450	110/180 450
Drain sleeve	P, mm	30	30	30	30

TDB-C series

Heat pump
water heater

models:



**TDB-C E heat pump water heater
without coil**



**TDB-C S heat pump water heater
with one coil**

Heat pump water heater TDB-C is a compact appliance, which utilizes aerothermal energy. It extracts heat from the ambient air, intensifies it and delivers it to the water in the tank. The unit is installed in a non-dwelling room with constant intake of fresh air.

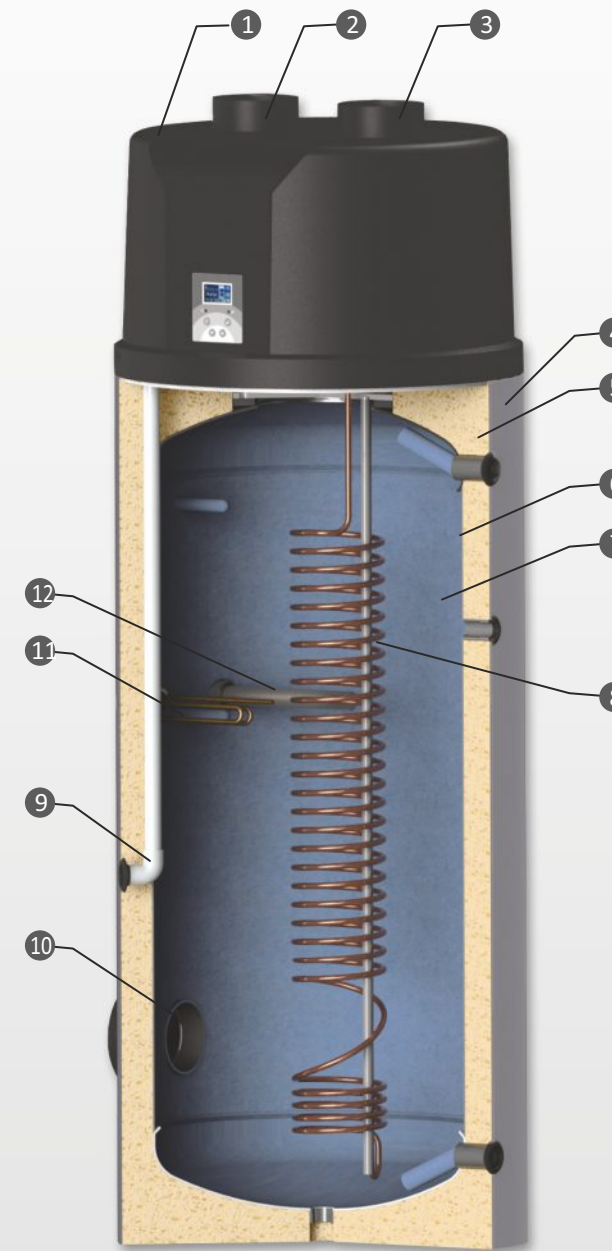
Product features:

- Electronic control unit.
- Antibacterial function.
- Temperature of water 55°C maintained by heat pump. Heating above 55°C aided by electric heating element provided optionally
- Coefficient of performance (COP) = 3.7
- Copper condenser
- Environment friendly heat pump technology with harmless refrigerant R134A.
- Quiet operation (45dB(A)).
- Fast and efficient heat recovery.
- Due to its dehumidification capabilities the system can be installed in moist locations to balance humidity.
- High efficiency insulation and outer casing of PVC with RAL 9006 color.
- Multi-position mounting of temperature sensor.
- All threads are internal.
- Complex corrosion protection realized by means of titanium enamel and anode protector
- Heat exchanger coil (TDB-C S) enables the unit to work with different heat sources.
- Easy installation. Convenient and compact design.

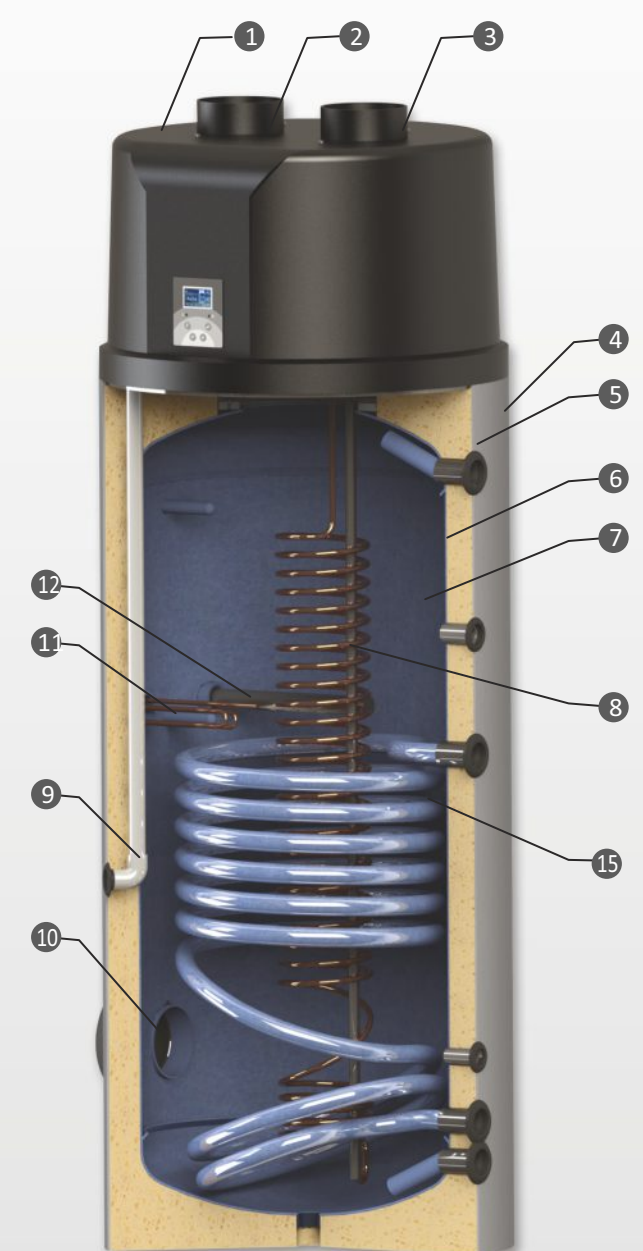
Modifications and sizes:

TDB-C E	V	200	300
TDB-C S	V	200	300

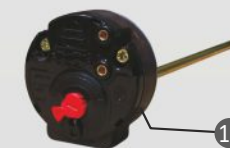
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TDB-C E



TDB-C S

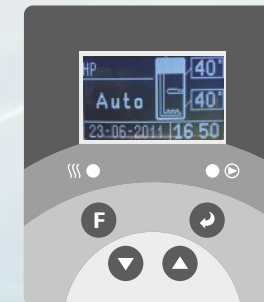
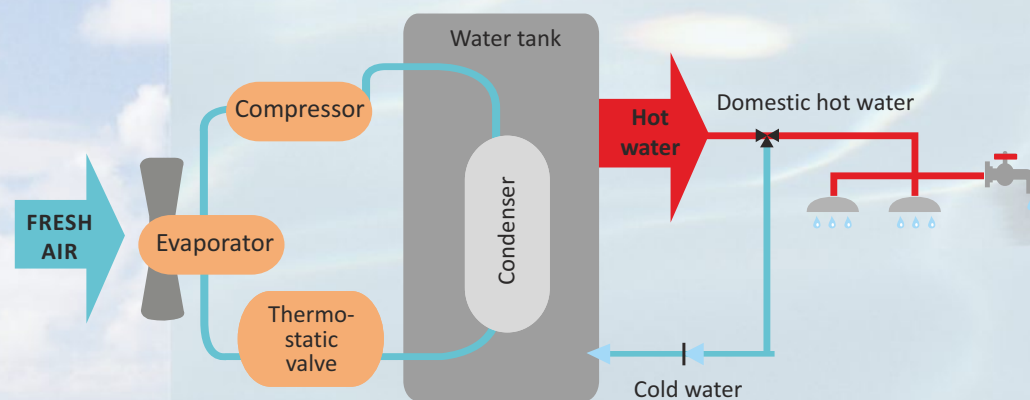


1. Heat pump module
2. Intake air connector
3. Discharge air connector
4. Aesthetic PVC jacket with color RAL 9006
5. Highly efficient thermal insulation
6. Water tank of low-carbon steel
7. Titanium enamel (DIN 4753-3)
8. Copper condenser
9. Condenser pipe
10. Inspection opening with flange cover
11. Electric heating element
12. Anode protector (DIN 4753-6)
13. Thermostat with integrated thermal protection
14. Safety valve, 8 bar
15. Heat exchanger coil (TDB-C S)

TDB-C series

technical specifications

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Control unit functionality

- Time and date
- Select heat source
- Automatic timer with three on/off programs
- Consumed power indication
- Set water temperature
- Antibacterial mode
- Max temperature setting for heat pump unit

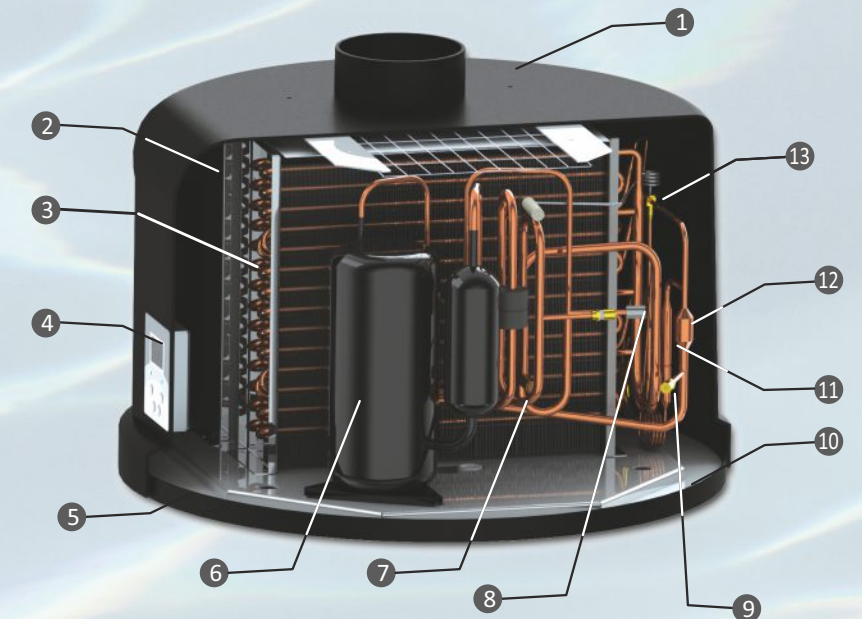
Heat pump operation

The heat pump water heater is used for production of domestic hot water by extracting heat from the ambient air and delivering it into a steel tank coated with titanium enamel.

The refrigerant used is the environment friendly (R134a), which has the capacity to convey heat from the environment into the water in the tank by employment of heat pump technology. This appliance boosts coefficient of performance COP 3,7 (EN 14511-3; 2011), which means that only a minor part of the energy necessary to heat up the water is derived from the electrical power supply grid.

Elements of Heat Pump module TDB-C

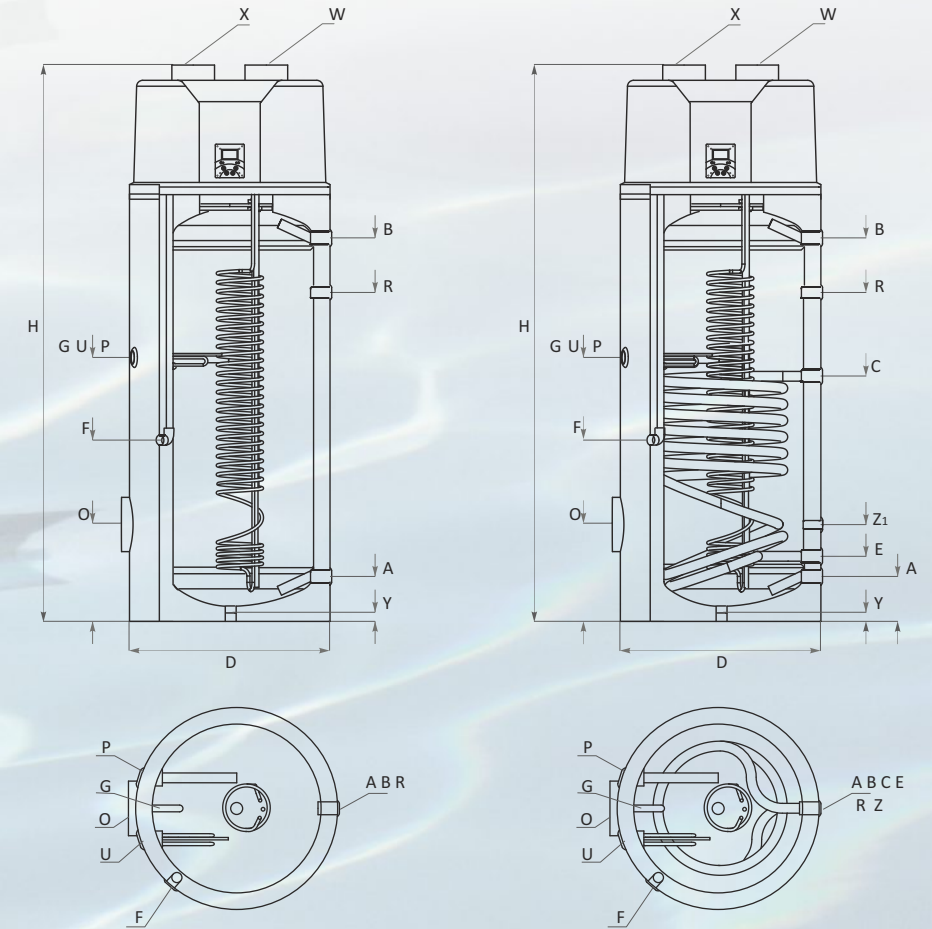
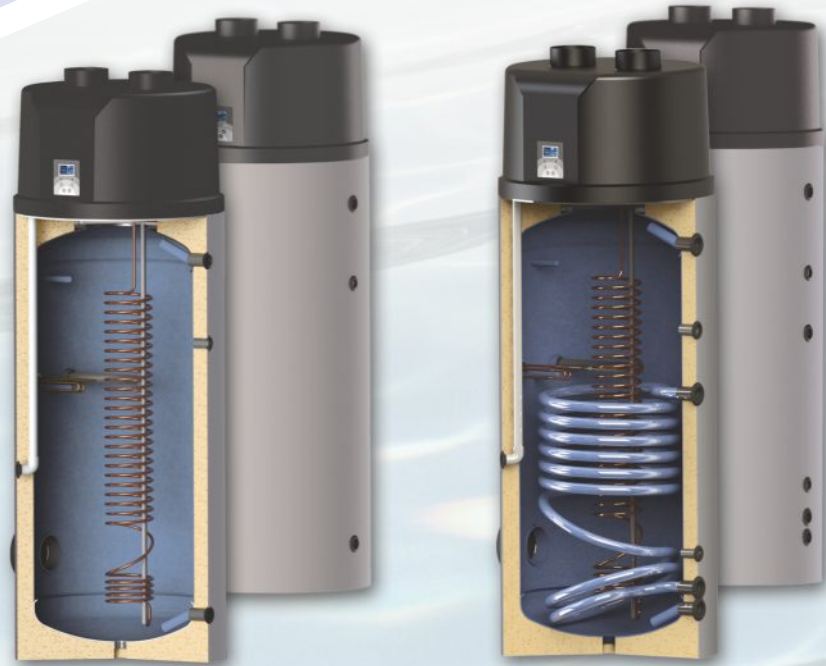
1. Decorative cover
2. Fan
3. Evaporator
4. Control unit
5. Module base
6. Compressor
7. Four-way reversing valve
8. Pressure switch
9. Charging valves
10. Condensate drip tray
11. Non-return (check) valve
12. Filter drier
13. Thermostatic valve



TDB-C series

technical specifications

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		TDB-C E 200	TDB-C E 300	TDB-C S 200	TDB-C S 300
Capacity	l	200	300	200	300
Height H / Min. vertical clearance	mm	1620/1750	1864/1934	1620/1750	1864/1934
Diameter D	mm	ø 660	ø 660	ø 660	ø 660
Operating pressure / max. temperature	bar/°C	10/95	10/95	10/95	10/95
Test pressure of tank	bar	15	15	15	15
Heat output	kW	1.85		1.85	
Power consumption	W	400		400	
Power supply	V/A/Ph/Hz	230/2.3/1/50		230/2.3/1/50	
Compressor	type	rotary		rotary	
Refrigerant	type	R 134a		R 134a	
HP heating temperature	°C	55		55	
Min. intake air temperature	°C	7		7	
Air flow (slow/fast speed)	m³/h	300/350		300/350	
Loudness operation	dB (A)	45		45	
Heat exchange surface S1	m²			0.9	1.2
Coil capacity S1	l			5.55	7.40
Prolonged power acc. to DIN 4708; 80/60/45 °C, S1	kW m³/h			29 0.71	53 1.30
NL – power coeff. at 60°C, S1				4.5	11
Pressure drop Δp, S1	mbar			75	120
Operating pressure / max. coil temperature	bar/°C			16/110	16/110
Test pressure	bar			25	25
Anode protector		✓	✓	✓	✓
Electric heater	kW	1.5	1.5	1.5	1.5
Weight	kg	120	132	135	150

		TDB-C E 200	TDB-C E 300	TDB-C S 200	TDB-C S 300
Cold water inlet	A, mm	G1"/150	G1"/150	G1"/150	G1"/150
Hot water outlet	B, mm	G1"/990	G1"/1260	G1"/990	G1"/1260
Lower coil inlet S1	C, mm			G1"/615	G1"/806
Lower coil outlet S1	E, mm			G1"/215	G1"/215
Sensor sleeve for thermostat	G mm	G1"/655	G1"/865	G1"/655	G1"/865
Recirculation	R, mm	G¾/730	G¾/1000	G¾/730	G¾/1000
Inspection opening	Ø mm	110/180 320	110/180 320	110/180 320	110/180 320
Condenser pipe outlet	F, mm	G¾/600	G¾/600	G¾/600	G¾/600
Drain sleeve	Y, mm	G1"/50	G1"/50	G1"/30	G1"/30
Anode protector	P, mm	G1¼"/655	G1¼"/865	G1¼"/655	G1¼"/865
Electric heating element	U, mm	G1¼"/655	G1¼"/865	G1¼"/655	G1¼"/865
Additional sensor sleeve	Z, mm			G½"/320	G½"/320
Air duct pipes inlet: diameter recommended length	W, mm	ø 140 3000	ø 140 3000	ø 140 3000	ø 140 3000
Air duct pipes outlet: diameter recommended length	X, mm	ø 140 5000	ø 140 5000	ø 140 5000	ø 140 5000

TDB-A series

Heat pump
water heater

models:



TDB-A E heat pump water heater
without coil



TDB-A S heat pump water heater
with one coil

Heat pump water heater TDB-A is a compact appliance, which utilizes aerothermal energy. It extracts heat from the ambient air, intensifies it and delivers it to the water in the tank. The unit is installed in a non-dwelling room with constant intake of fresh air. The condenser unit is a large aluminum coil wound around the water tank. To ensure good heat transfer from the condenser to the tank there is a layer of heat conducting paste spread between the two. To ensure maximum contact surface the aluminum pipe employs special D-shaped section.

Product features:

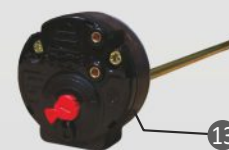
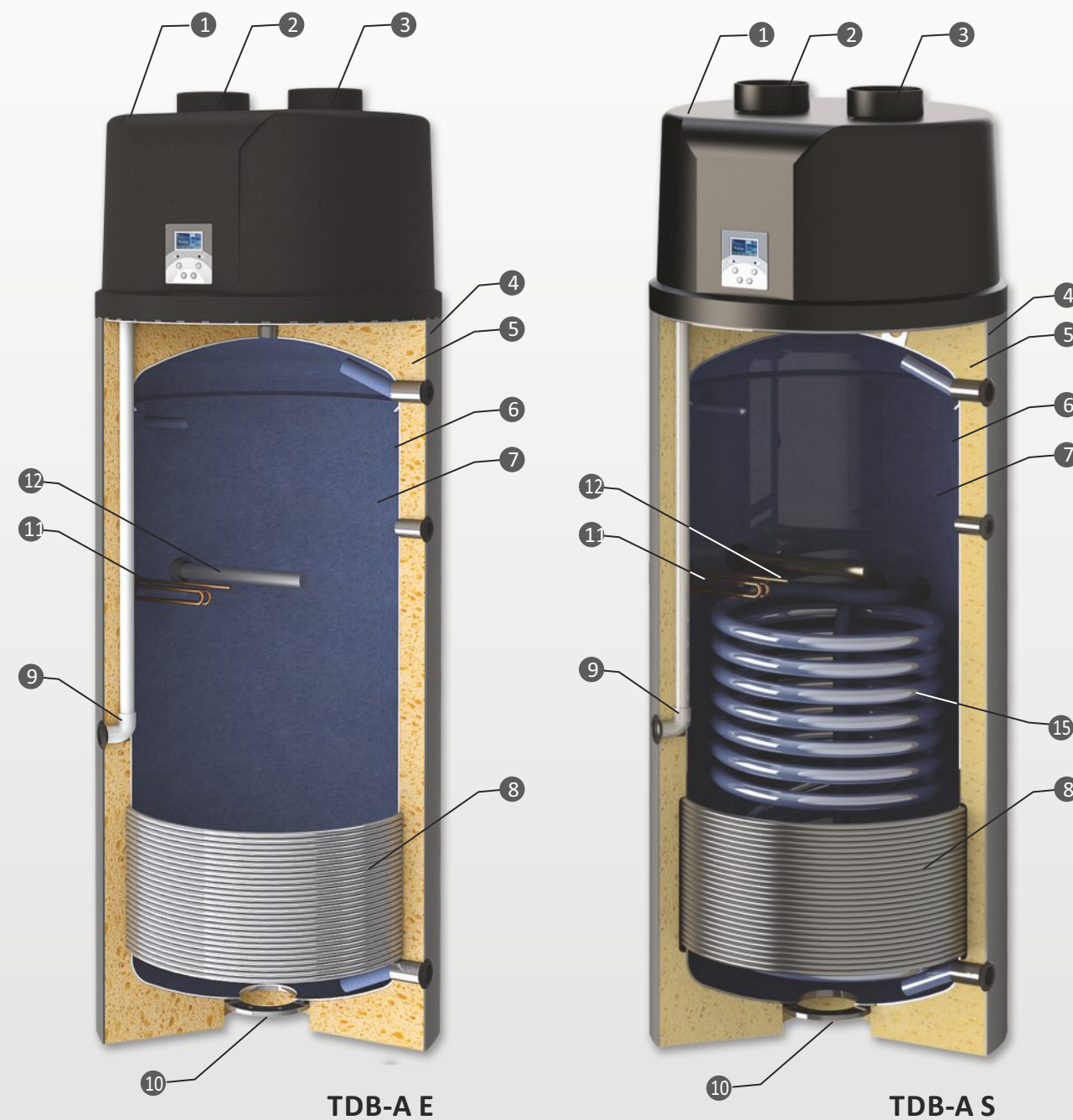
- Electronic control unit.
- Antibacterial function.
- Temperature of water 55°C maintained by heat pump. Heating above 55°C aided by electric heating element provided optionally
- Coefficient of performance (COP) = 3.5
- Aluminum condenser
- Environment friendly heat pump technology with harmless refrigerant R134A.
- Quiet operation (45dB(A)).
- Fast and efficient heat recovery.
- Due to its dehumidification capabilities the system can be installed in moist locations to balance humidity.
- High efficiency insulation and outer casing of PVC with RAL 9006 color.
- Multi-position mounting of temperature sensor.
- All threads are internal.
- Complex corrosion protection realized by means of titanium enamel and anode protector
- Heat exchanger coil (TDB-A S) enables the unit to work with different heat sources.
- Easy installation. Convenient and compact design.

Modifications and sizes:

TDB-A E	V	200	300
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TDB-A S	V	200	300
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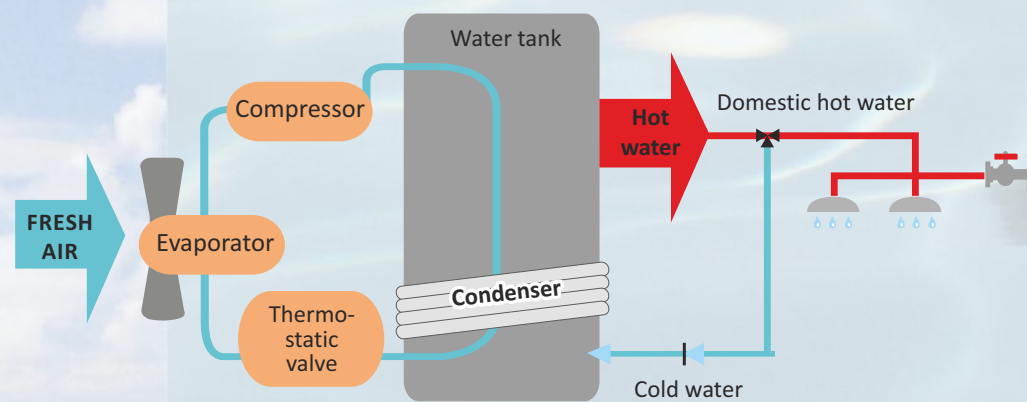


1. Heat pump module
2. Intake air connector
3. Discharge air connector
4. Aesthetic PVC jacket with color RAL 9006
5. Highly efficient thermal insulation
6. Water tank of low-carbon steel
7. Titanium enamel (DIN 4753-3)
8. Aluminum condenser
9. Condenser pipe
10. Inspection opening with flange cover
11. Electric heating element
12. Anode protector (DIN 4753-6)
13. Thermostat with integrated thermal protection
14. Safety valve, 8 bar
15. Heat exchanger coil (TDB-A S)

TDB-A series

technical specifications

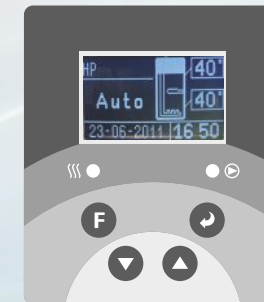
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Heat pump operation

The heat pump water heater is used for production of domestic hot water by extracting heat from the ambient air and delivering it into a steel tank coated with titanium enamel.

The refrigerant used is the environment friendly (R134a), which has the capacity to convey heat from the environment into the water in the tank by employment of heat pump technology. This appliance boosts coefficient of performance COP 3,5 (EN 14511-3; 2011), which means that only a minor part of the energy necessary to heat up the water is derived from the electrical power supply grid.

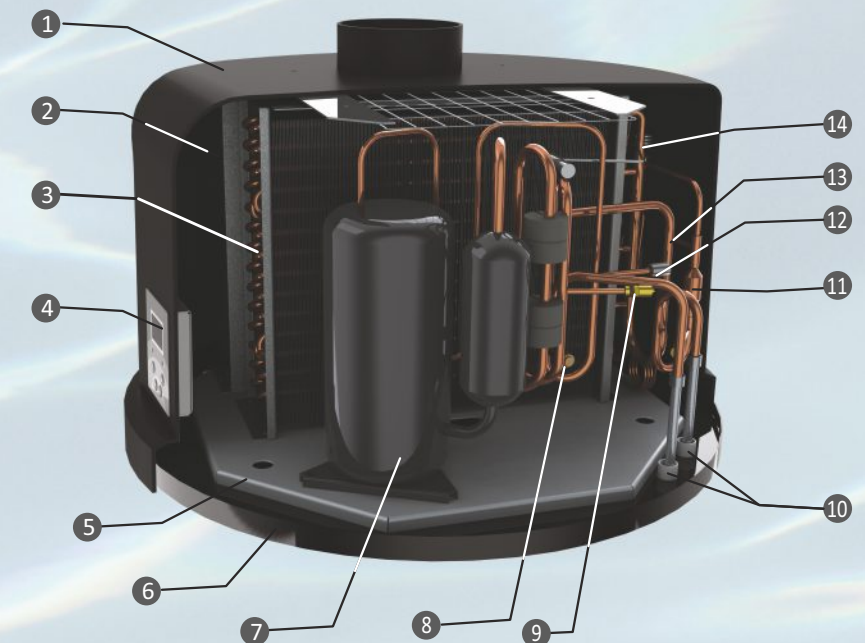


Control unit functionality

- Time and date
- Select heat source
- Automatic timer with three on/off programs
- Consumed power indication
- Set water temperature
- Antibacterial mode
- Max temperature setting for heat pump unit

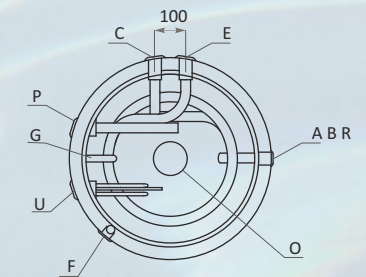
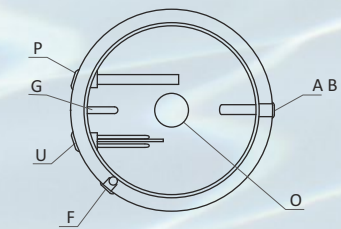
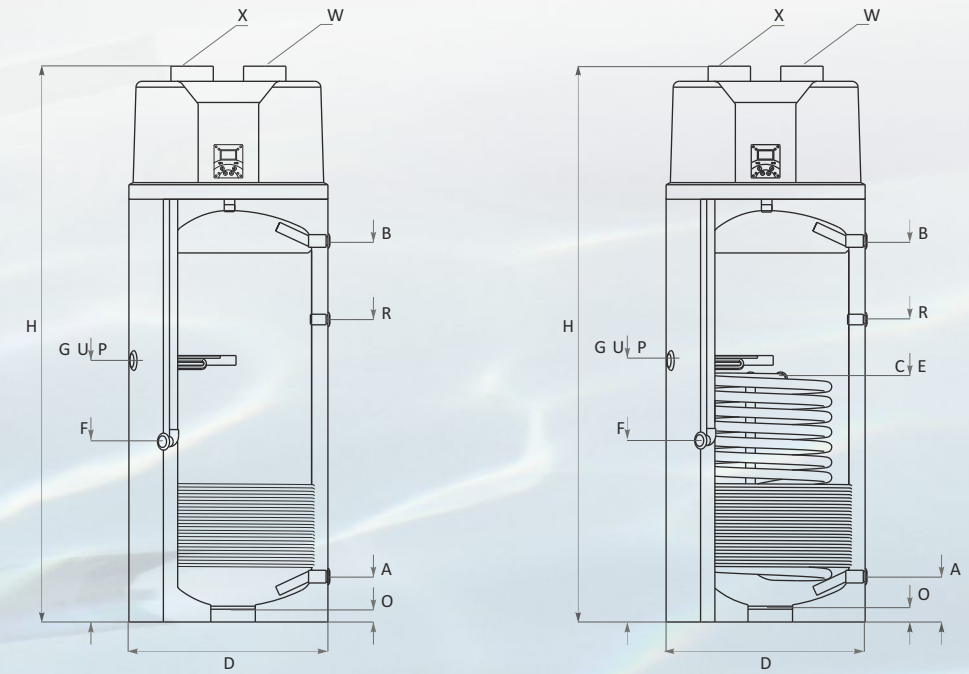
Elements of Heat Pump module TDB-A

1. Decorative cover
2. Fan
3. Evaporator
4. Control unit
5. Module base
6. Condensate drip tray
7. Compressor
8. Four-way reversing valve
9. Charging valves
10. Aluminum condenser inlet/outlet
11. Filter drier
12. Pressure switch
13. Non-return (check) valve
14. Thermostatic valve



TDB-A series

technical specifications



	TDB-A E 200	TDB-A E 300	TDB-A S 200	TDB-A S 300	
Capacity	l	200	300	200	300
Height H / Min. vertical clearance	mm	1620/1750	1864/1934	1620/1750	1864/1934
Diameter D	mm	ø 660	ø 660	ø 660	ø 660
Operating pressure / max. temperature	bar/°C	10/95	10/95	10/95	10/95
Test pressure of tank	bar	15	15	15	15
Heat output	kW	1.85		1.85	
Power consumption	W	400		400	
Power supply	V/A/Ph/Hz	230/2.3/1/50		230/2.3/1/50	
Compressor	type	rotary		rotary	
Refrigerant	type	R 134a		R 134a	
HP heating temperature	°C	55		55	
Min. intake air temperature	°C	7		7	
Air flow (slow/fast speed)	m³/h	300/350		300/350	
Loudness operation	dB (A)	45		45	
Heat exchange surface S1	m²		0.9	1.2	
Coil capacity S1	l		5.55	7.40	
Prolonged power acc. to DIN 4708; 80/60/45 °C, S1	kW m³/h		29 0.71	53 1.30	
NL – power coeff. at 60°C, S1			4.5	11	
Pressure drop Δp, S1	mbar		75	120	
Operating pressure / max. coil temperature	bar/°C		16/110	16/110	
Test pressure	bar		25	25	
Anode protector		✓	✓	✓	✓
Electric heater	kW	1.5	1.5	1.5	1.5
Weight	kg	120	132	135	150

Heat Pump Module

Lower S1 heat exchanger coil

	TDB-A E 200	TDB-A E 300	TDB-A S 200	TDB-A S 300
Cold water inlet	A, mm	G1"/150	G1"/150	G1"/150
Hot water outlet	B, mm	G1"/990	G1"/1260	G1"/1260
Lower coil inlet S1	C, mm		G1"/590	G1"/806
Lower coil outlet S1	E, mm		G1"/590	G1"/806
Sensor sleeve for thermostat	G mm	G1"/655	G1"/865	G1"/865
Recirculation	R, mm	G¾/730	G¾/1000	G¾/1000
Inspection opening	Ø mm	110/180 40	110/180 40	110/180 40
Condenser pipe outlet	F, mm	G¾/70	G¾/70	G¾/70
Anode protector	P, mm	G1¼"/655	G1¼"/865	G1¼"/865
Electric heating element	U, mm	G1¼"/655	G1¼"/865	G1¼"/865
Additional sensor sleeve	Z, mm			
Air duct pipes inlet: diameter recommended length	W, mm	ø 140 3000	ø 140 3000	ø 140 3000
Air duct pipes outlet: diameter recommended length	X, mm	ø 140 5000	ø 140 5000	ø 140 5000

LARGE SCALE WATER TANKS

Capacity: from 2 000 to 10 000 liters



Non-standard tanks with capacity higher than 2000 l are custom tailored to each particular case.

The dimensions, construction, and sleeves orientation are designed in conformity with the peculiarities of the installation space.

Optional equipment:

- U-shaped heat-exchanger;
- Electric heating elements;
- Active cathodic protection;
- Cold galvanizing on the inner surface;
- Insulation case of soft PU on the outer side.

Operating pressure: 8 bar



	S	ST	SWP	P	KSC	HYG	TDB
Electric heating element	•	•	•	•	•	•	•
Thermostat	•	•	•	•	•	•	•
Thermometer	•	•	•	•	•	•	•
Sensor bushing	•	•	•	•	•	•	•
Adjustable height rubber foot - 3 pcs.	•	•	•				•
Safety valve	•	•	•		•	•	•
Blind flange cover	•	•	•				•
Flange cover for inspection opening with one sleeve for fitting electric heater	•	•	•				
Flange cover for inspection opening with two sleeves for fitting electric heater	•	•	•				



In order to ensure long term trouble free operation of your SUNSYSTEM appliance, please call an authorized SUNSYSTEM service partner to do the installation for you.



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Energy from the sun

