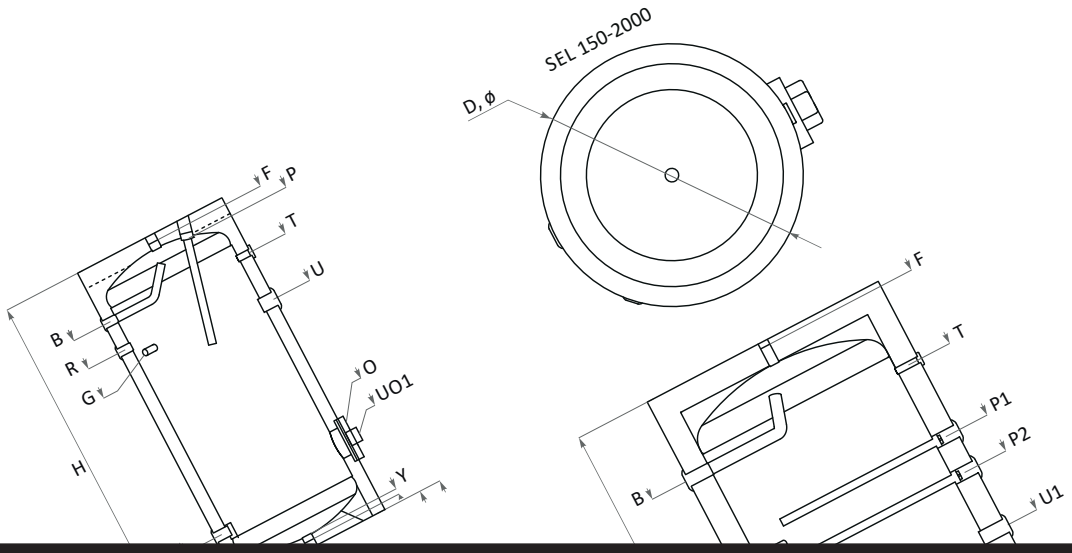


- SOLAR WATER HEATERS
- WATER HEATERS FOR HEAT PUMP SYSTEMS
- COMBI TANKS
- BUFFER TANKS FOR HEATING SYSTEMS

WATER HEATERS
BUFFER TANKS

SUNSYSTEM®

Shumen 9700
Blvd. Madara 12
e-mail: sales@sunsystem.bg
tel.: +359 700 17 343
www.burnit.bg

FOR THE COMPANY

More than 20 years, we have been creating Bulgarian products with quality appreciated and sought after in the Western European markets.
The **SUNSYSTEM** and **BURNiT** brands are product of NES Ltd. company.
The brands are recognized and preferred by customers in over 70 countries.
The company's production, warehousing and commercial facilities cover 40,000 square meters in Shumen city, Sofia city and Leipzig - Germany.
The production is distributed in hundreds of partner sites around the world.
In the company employs over 450 highly qualified professional.
The quality of the production processes and of each product is strictly monitored according to the quality management system ISO 9001:2015.
The company's product range offers a wide variety of products.
These products fully cover the heating and thermal needs of every household, as well as modern high-power equipment for industry.

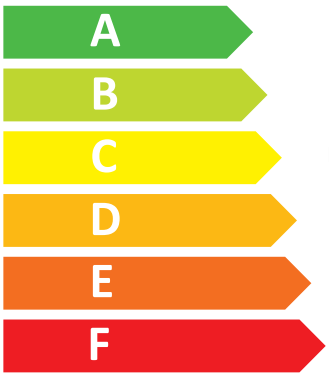
SUNSYSTEM®

CONTENTS

SUNSYSTEM

DUAL-COIL SOLAR WATER HEATERS

Floor installation. For direct / indirect heating and the possibility of connecting to a solar and heating system. Optionally, an electric heater can be added.



Energy efficiency
Directive 2010/30/EU,
Regulation 812/2013:Class C

Insulation	High efficiency insulation (DIN 4753-8): rigid PU, thickness 50 mm (up to 500 Liters) or removable insulation of fleece, with thickness of 100 mm (over 500 Liters). Outer lining of PVC with RAL 9006 color.
Water tank	Water tank of low-carbon steel S235JR. Complex corrosion protection realized by means of titanium enamel (DIN 4753-3) and anode protection (DIN 4753-6). Convenient inspection opening. Operating pressure: 10 bar Test pressure: 15 bar Maximum temperature: 95°C
Inlets/ Outlets	Connections for temperature sensor. All threads are internal.
One or two heat-exchanger coils (models SN/ SON / H-SN /H-SON)	Enables the tank to utilize an external sources of renewable energy. Operating pressure: 16 bar Test pressure: 25 bar Maximum temperature: 110°C

Base equipment	Thermometer. Sensor bushing. Safety valve, 8 bar. Adjustable foot for models up to 500 L. (See p. 72).
Optional equipment	Kit for electric heating (Electric heating element and Thermostat with integrated thermal protection) with an optional power (See p. 72).

SEL - without coil

Vertical models.

L	Model	Code
150	SEL 150	09030106205001
200	SEL 200	09030106205002
300	SEL 300	09030106205004
400	SEL 400	09030106205005
500	SEL 500	09030106205006
750	SEL 750	09030106205007
1000	SEL 1000	09030106205008
1500	SEL 1500	09030106205009
2000	SEL 2000	09030106205010

H SEL - without coil

Horizontal models.

L	Model	Code
200	H SEL 200	01035106205002
300	H SEL 300	01035106205004
500	H SEL 500	01035106205006
1000	H SEL 1000	01035106205008
1500	H SEL 1500	01035106205009

SN - with one coil

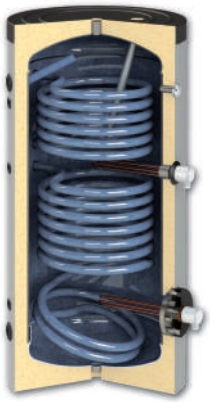
Vertical models.

L	Model	Code
150	SN 150	09030106202001
200	SN 200	09030106202002
300	SN 300	09030106202004
400	SN 400	09030106202005
500	SN 500	09030106202006
750	SN 750	09030106202007
1000	SN 1000	09030106202008
1500	SN 1500	09030106202009
2000	SN 2000	09030106202010

H SN - with one coil

Horizontal models.

L	Model	Code
200	H SN 200	01035106202002
300	H SN 300	01035106202004
500	H SN 500	01035106202006
1000	H SN 1000	01035106202008
1500	H SN 1500	01035106202009



SON - with two coils

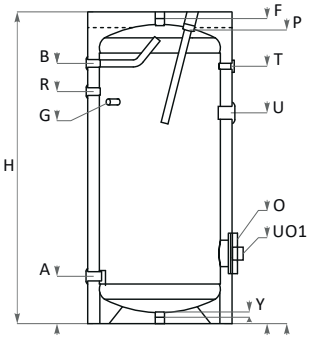
Vertical models.

L	Model	Code
150	SON 150	09030106203001
200	SON 200	09030106203002
300	SON 300	01030106203004
400	SON 400	01030106203005
500	SON 500	01030106203006
750	SON 750	01030106203007
1000	SON 1000	01030106203008
1500	SON 1500	01030106203009
2000	SON 2000	09030106203010

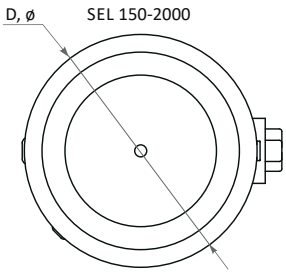
H SON - with two coils

Horizontal models.

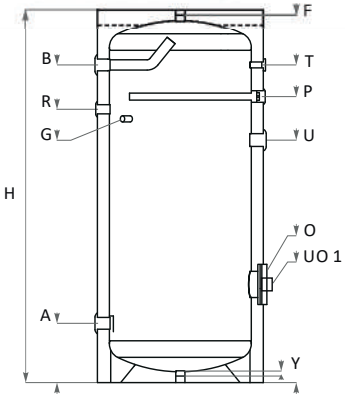
L	Model	Code
300	H SON 300	01035106203004
500	H SON 500	01035106203006
1000	H SON 1000	01035106203008
1500	H SON 1500	01035106203009



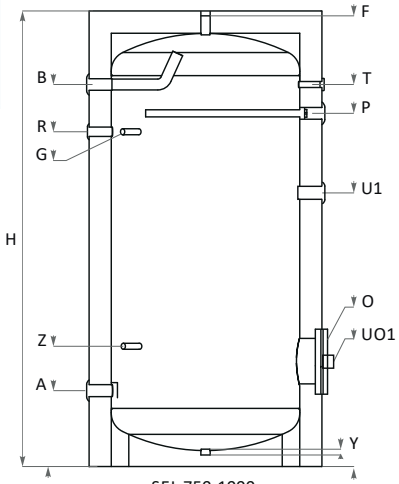
SEL 150-300



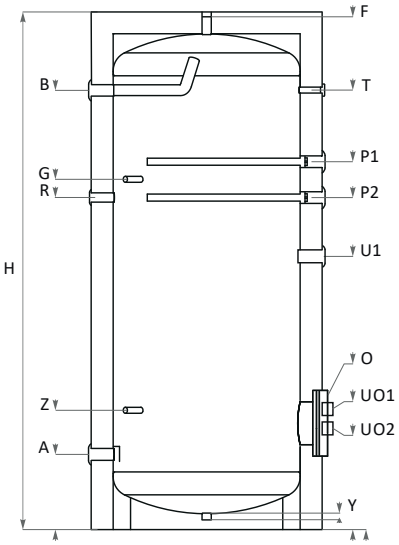
SEL 150-2000



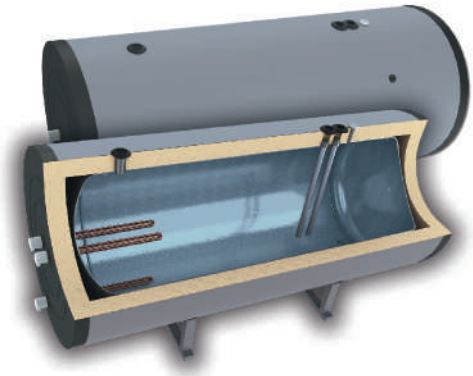
SEL 400-500

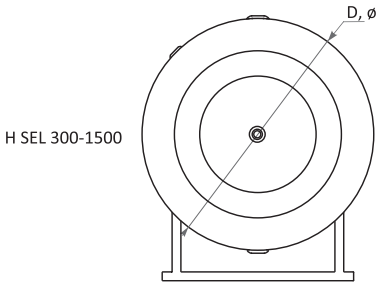


SEL 750-1000

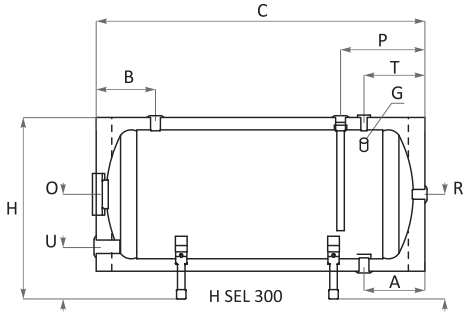


SEL 1500-2000

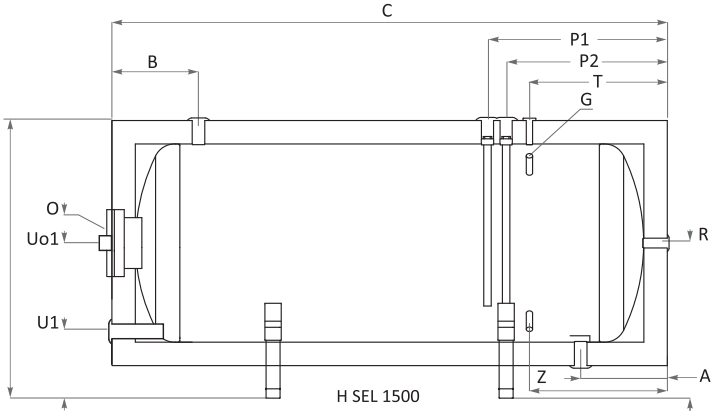




H SEL 300-1500



H SEL 300



H SEL 1500

Vertical modification SEL

General parameters

L	H mm	D mm ∅	kg
150	1070	ø560	50
200	1340	ø560	68
300	1420	ø660	86
400	1470	ø750	123
500	1720	ø750	140
750	2000	ø950	210
1000	2050	ø1050	245
1500	2310	ø1050	342
2000	2310	ø1350	645

Sleeves

L	A mm	B mm	G mm Rp½"	F mm Rp1"	O mm	P mm Rp1¼"	R mm	T mm Rp½"	U /Uo mm Rp1½"	Y mm Rp1"	Z mm Rp½"
150	Rp1"/202	Rp1"/895	788	1070	ø110x180/309	1070	Rp¾"/788	895	780/309	20	
200	Rp1"/202	Rp1"/1112	900	1340	ø110x180/309	1340	Rp¾"/987	1138	850/309	20	
300	Rp1"/215	Rp1"/1182	1008	1410	ø110x180/320	1410	Rp¾"/1055	1170	950/320	20	
400	Rp1¼"/270	Rp1¼"/1204	950	1480	ø110x180/450	1079	Rp1"/1005	1204	900/450	20	
500	Rp1½"/270	Rp1½"/1453	1208	1710	ø110x180/450	1340	Rp1"/1250	1453	1130/450	20	
750	Rp1½"/300	Rp1½"/1630	1435	1950	ø200x280/450	1435	Rp1"/1405	1630	1040/450	20	535
1000	Rp1½"/320	Rp1½"/1700	1487	2020	ø200x280/460	1570	Rp1"/1487	1700	1155/460	40	520
1500	2xRp1½"/320	2xRp1½"/1975	1487	2320	ø200x280/460	2x 1570/1650	Rp1"/1487	1975	2x1220/460	40	520
2000	2xRp1½"/385	2xRp1½"/1885	1685	2311	ø400x560/484	2x 1625/1705	Rp1"/1635	1835	3x1340/484	30	745

Horizontal modification H SEL

General parameters

L	H mm	C mm	D mm ∅	kg
200	695	1340	ø560	68
300	790	1410	ø660	86
500	890	1710	ø750	140
1000	1190	2080	ø1050	245
1500	1190	2380	ø1050	342

Inlets / Outlets

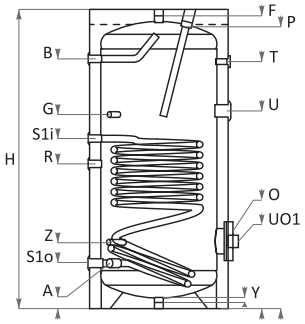
L	A mm	B mm	G mm Rp½"	O mm	P mm Rp1¼"	R mm Rp1"	T mm Rp½"	U /Uo mm Rp1½"	Z mm Rp½"
200	Rp1"/220	Rp1"/220	220	ø110x180/420	320	420	220	195/420	
300	Rp1"/260	Rp1"/260	260	ø110x180/465	360	465	260	258/465	
500	Rp1½"/270	Rp1½"/270	270	ø110x180/515	370	515	270	245/515	
1000	Rp1½"/370	Rp1½"/320	370	ø200x280/665	470	665	370	2x280/665	370
1500	Rp1½"/360	Rp1½"/320	580	ø200x280/665	2x 680/770	665	580	2x280/665	580

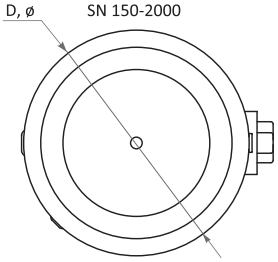
General parameters

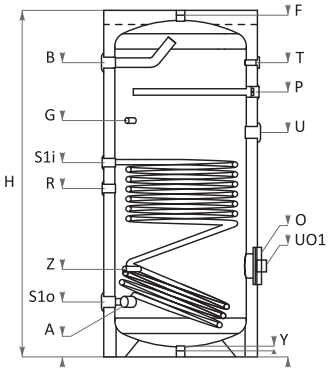
L Capacity
H, mm Height / Min. vert. clearance
C, mm Lenght
øD, mm Diameter
kg Weight

Inlets / Outlets

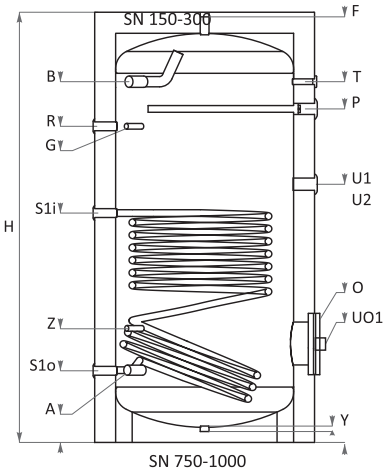
A, mm Cold water inlet
B, mm Hot water outlet
G, mm Sensor sleeve for thermostat
F, mm Air vent sleeve
O, mm Inspection opening/Flange
P, mm Anode (DIN 4753-6)
R, mm Recirculation 8 bar
T, mm Thermometer
U, mm Sleeve for Electric element on water tank body
Uo, mm Sleeve for Electric element on inspection opening flange
Y, mm Drain sleeve
Z, mm Additional sensor sleeve



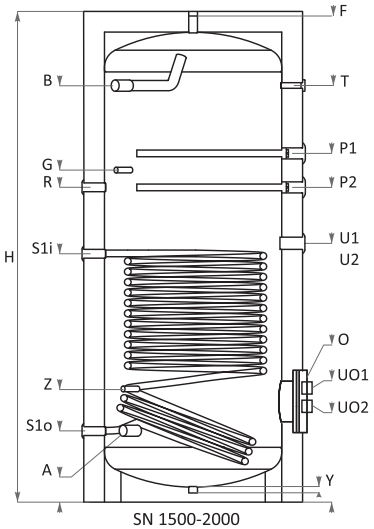




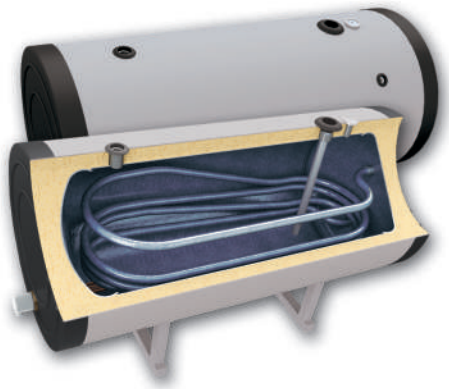
SN 400-500

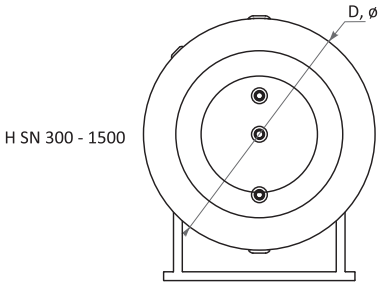


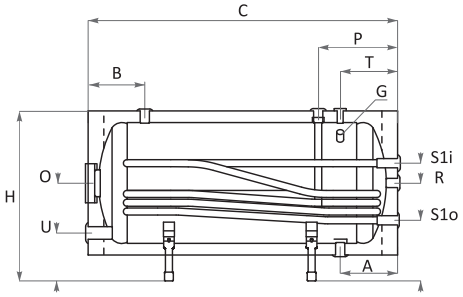
SN 750-1000

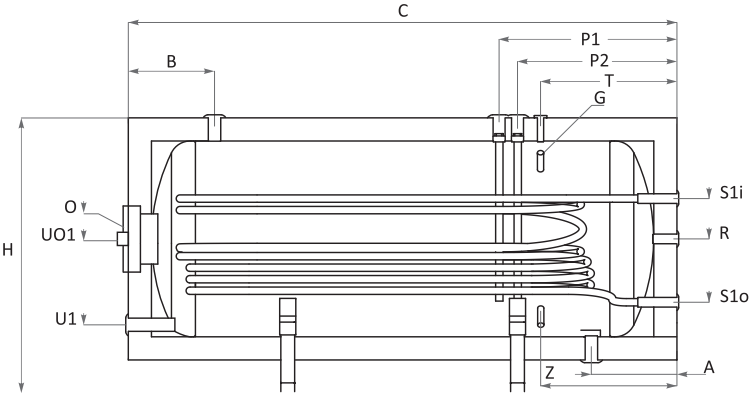


SN 1500-2000









Vertical models SN

General parameters | Heat-exchanger coil

L	H mm	D mm ∅	kg	S1 m²	S1 L	S1 kW (m³/h)	S1 NL 60°C	S1 Δp, mbar	S1i/S1o mm Rp1"
150	1070	ø560	59	0.74	4.56	25 (0.61)	2.5	65	592/202
200	1340	ø560	73	0.9	5.55	29 (0.71)	4.5	75	692/202
300	1420	ø660	104	1.2	7.40	53 (1.30)	11	120	805/215
400	1470	ø750	145	1.5	9.25	62 (1.52)	13	180	850/270
500	1720	ø750	167	1.8	11.10	72 (1.77)	18	210	960/270
750	2000	ø950	242	2.1	12.95	80 (1.97)	32	210	970/300
1000	2050	ø1050	286	2.7	16.65	105 (2.58)	42	260	1080/320
1500	2310	ø1050	392	3	18.50	131 (3.22)	64	310	1180/320
2000	2310	ø1350	712	4.1	25.28	180 (4.42)	80	420	1635/385

Inlets / Outlets

L	A mm	B mm	G mm Rp½"	F mm Rp1"	O mm	P mm Rp1¼"	R mm	T mm Rp½"	U /Uo mm Rp1½"	Y mm Rp1"	Z mm Rp½"
150	Rp1"/202	Rp1"/868	822	1070	ø110x180/309	1070	Rp¾"/450	868	780/309	20	422
200	Rp1"/202	Rp1"/1340	892	1340	ø110x180/309	1340	Rp¾"/500	1138	850/309	20	392
300	Rp1"/215	Rp1"/1165	1897	1410	ø110x180/320	1410	Rp¾"/663	1170	950/320	20	407
400	Rp1¼"/270	Rp1¼"/1204	950	1480	ø110x180/450	1079	Rp1"/673	1204	900/450	20	450
500	Rp1½"/270	Rp1½"/1453	1168	1710	ø110x180/450	1340	Rp1"/831	1453	1130/450	20	568
750	Rp1½"/300	Rp1½"/1630	1435	1950	ø200x280/450	1435	Rp1"/1405	1630	1040/450	20	535
1000	Rp1½"/320	Rp1½"/1700	1487	2020	ø200x280/460	1570	Rp1"/1497	1700	2x1155/460	40	520
1500	2xRp1½"/320	2xRp1½"/1975	1487	2320	ø200x280/460	2x2090	Rp1"/1497	1975	2x1210/3x460	40	520
2000	2xRp1½"/385	2xRp1½"/1885	1685	2311	ø400x560/484	2x2003	Rp1"/1635	1835	2x1340/3x484	30	745

Horizontal models H SN

General parameters | Heat-exchanger coil

L	H mm	C mm ⟷	D mm ∅	kg	S1 m²	S1 L	S1 kW (m³/h)	S1 NL 60°C	S1 Δp, mbar	S1i/S1o mm Rp1"
200	695	1340	ø560	73	0.9	5.55	29 (0.71)	4.5	75	692/202
300	790	1410	ø660	104	1.2	7.40	53 (1.30)	11	120	805/215
500	890	1710	ø750	167	1.8	11.10	72 (1.77)	18	210	960/270
1000	1190	2080	ø1050	286	2.7	16.65	105 (2.58)	42	260	1080/320
1500	1190	2380	ø1050	392	3	18.50	131 (3.22)	64	310	1180/320

Inlets / Outlets

L	A mm	B mm	G mm Rp½"	O mm	P mm Rp1¼"	R mm Rp1"	T mm Rp½"	U /Uo mm Rp1½"	Z mm Rp½"
200	Rp1"/220	Rp1"/220	220	ø110x180/420	320	420	220	240/420	
300	Rp1"/260	Rp1"/260	260	ø110x180/465	360	465	260	238/465	
500	Rp1½"/270	Rp1½"/270	270	ø110x180/515	370	515	270	245/515	
1000	Rp1½"/360	Rp1½"/340	360	ø200x280/665	460	665	360	280/665	360
1500	Rp1½"/360	Rp1½"/340	360	ø200x280/665	2x 690/770	665	580	2x280/665	580

General parameters

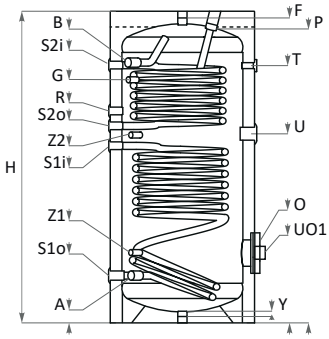
- **L** Capacity
- **H, mm** Height
- **C, mm** Length
- **øD, mm** Diameter
- **kg** Weight

Inlets / Outlets

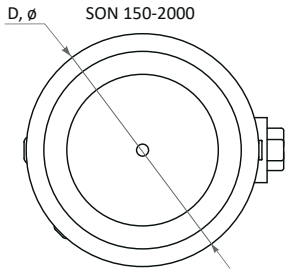
- **A, mm** Cold water inlet
- **B, mm** Hot water outlet
- **G, mm** Sensor sleeve for thermostat
- **F, mm** Air vent sleeve
- **O, mm** Inspection opening / flange
- **P, mm** Anode
- **R, mm** Recirculation
- **T, mm** Thermometer
- **U, mm** Sleeve for Electric element on water tank body
- **Uo, mm** Sleeve for Electric element on inspection opening flange
- **Y, mm** Drain sleeve
- **Z, mm** Additional sensor sleeve

Heat-exchanger coil

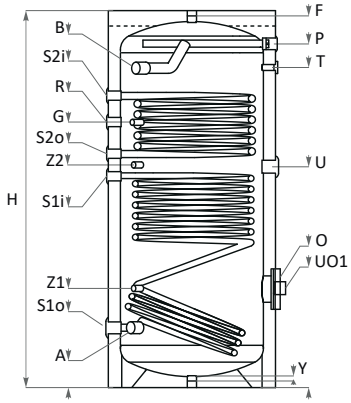
- **S1** Lower coil
- **S1, m²** Heat exchange surface S1
- **S1, L** Coil capacity S1
- **S1, kW (m³/h)** Prolonged power acc. to DIN 4708; 80°C/60°C/45°C, S1
- **S1, NL 60°C** NL- power coefficient at 60°C, S1
- **S1, Δp, mbar** Pressure drop Δp, S1
- **S1i/S1o mm** Inlet/Outlet Lower coil S1



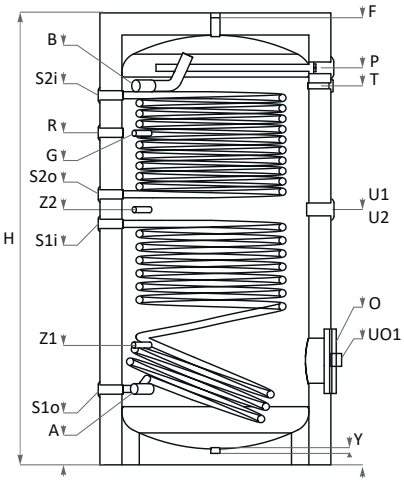
SON 150-300



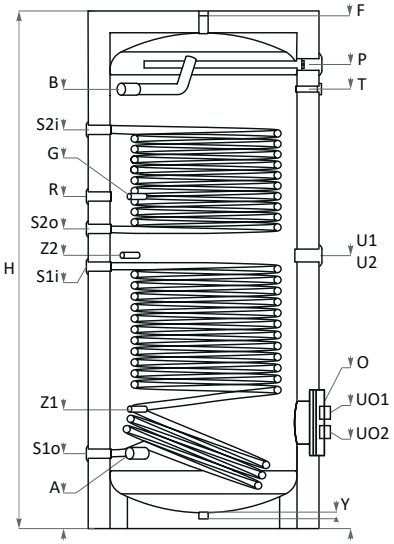
SON 150-2000



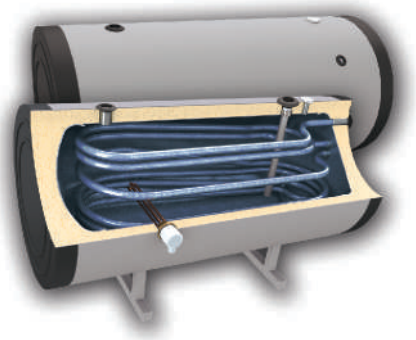
SON 400-500

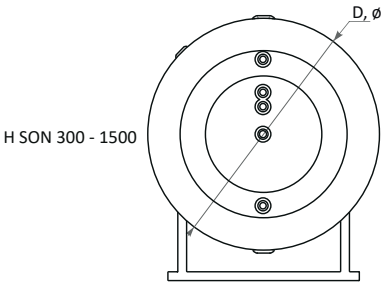


SON 750-1000

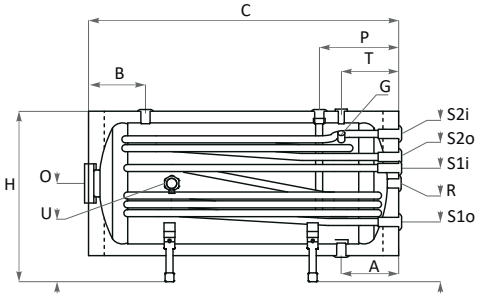


SON 1500-2000

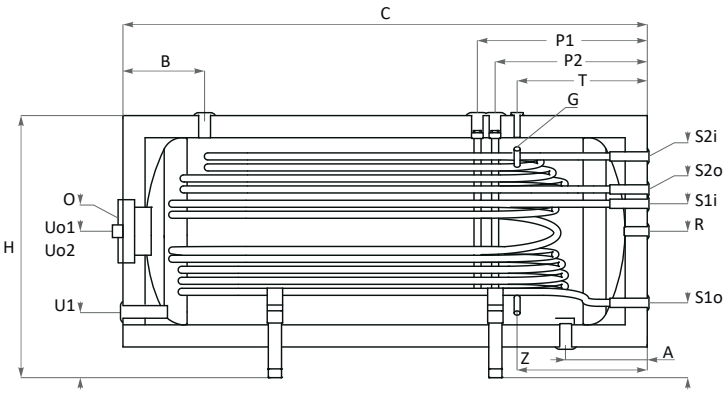




H SON 300 - 1500



H SON 300



H SON 1500

Vertical models SON

General parameters / Heat-exchanger coils

	L	H mm	D mm ∅	kg	S1/S2 m²	S1/S2 L	S1/S2 kW (m³/h)	S1/S2 NL 60°C	S1/S2 Δp, mbar	S1i/S1o mm Rp1"	S2i/S2o mm Rp1"
150	1070	ø560	65		0.74/0.4	4.56/2.47	25(0.61)/15(0.37)	2.5/1	65/48	592/202	874/674
200	1340	ø560	82		0.9/0.6	5.55/3.70	29(0.71)/18(0.44)	4.5/1.5	75/55	692/202	1112/812
300	1420	ø660	118		1.2/0.9	7.40/5.55	53(1.30)/21(0.52)	11/2	120/70	805/215	1170/894
400	1470	ø750	160		1.5/1	9.25/6.17	62(1.52)/27(0.66)	13/2.2	180/80	850/270	1210/952
500	1720	ø750	185		1.8/1.2	11.10/7.40	72(1.77)/34(0.84)	18/2.8	210/90	960/270	1350/1062
750	2000	ø950	263		2.1/1.4	12.95/8.63	80(1.97)/50(1.23)	32/10	210/150	970/300	1560/1160
1000	2050	ø1050	315		2.7/1.9	16.65/11.72	105(2.58)/62(1.52)	42/28	260/210	1080/320	1660/1220
1500	2310	ø1050	423		3/2.5	18.50/15.42	131(3.22)/74(1.82)	64/34	310/260	1180/320	1790/1350
2000	2310	ø1350	761		4.1/3	25.28/18.50	180(4.42)/110(2.70)	80/55	420/300	1635/385	1885/1420

Inlets / Outlets

	L	A mm	B mm	G mm Rp½"	F mm Rp1"	O mm	P mm Rp1¼"	R mm	T mm Rp½"	U /Uo mm Rp1½"	Y mm Rp1"	Z1/ Z2 mm Rp½"
150		Rp1"/202	Rp1"/1070	788	1070	ø110x180/309	1070	Rp¾"/788	892	752/309	30	352/631
200		Rp1"/202	Rp1"/1168	1037	1340	ø110x180/309	1340	Rp¾"/987	1138	645/309	30	302/752
300		Rp1"/215	Rp1"/1182	1104	1410	ø110x180/320	1410	Rp¾"/957	1170	852/320	30	320/852
400		Rp1¼"/270	Rp1¼"/1240	1054	1480	ø110x180/450	1337	Rp1"/1105	1152	901/450	30	450/901
500		Rp1½"/270	Rp1½"/1453	1206	1710	ø110x180/450	1568	Rp1"/1206	1453	1011/450	30	450/1011
750		Rp1½"/300	Rp1½"/1630	1435	1950	ø200x280/450	1728	Rp1"/1405	1630	1040/450	30	535/1040
1000		Rp1½"/320	Rp1½"/1700	1487	2020	ø200x280/460	1798	Rp1"/1487	1700	1140/460	30	520/1140
1500		2xRp1½"/320	2xRp1½"/1975	1487	2320	ø200x280/460	2x2090	Rp1"/1487	2089	2x1220/460	30	520/1220
2000		2xRp1½"/385	2xRp1½"/1885	1685	2311	ø400x560/484	2x2003	Rp1"/1265	1835	2x1340/2x484	30	745/1340

Horizontal models H SON

General parameters / Heat-exchanger coils

	L	H mm	C mm ↔	D mm ∅	kg	S1/S2 m²	S1/S2 L	S1/S2 kW (m³/h)	S1/S2 NL 60°C	S1/S2 Δp, mbar	S1i/S1o mm Rp1"	S2i/S2o mm Rp1"
300		790	1410	ø660	118	1.2/0.9	7.40/5.55	53(1.30)/21(0.52)	11/2	120/70	535/290	697/610
500		890	1710	ø750	185	1.8/1.2	11.10/7.40	72(1.77)/34(0.84)	18/2.8	210/90	585/325	785/655
1000		1190	2080	ø1050	315	2.7/1.9	16.65/11.72	105(2.58)/62(1.52)	42/28	260/210	790/340	1005/855
1500		1190	2380	ø1050	423	3/2.5	18.50/15.42	131(3.22)/74(1.82)	64/34	310/260	790/340	1005/855

Inlets / Outlets

	L	A mm	B mm	G mm Rp½"	O mm	P mm Rp1¼"	R mm Rp1"	T mm Rp½"	U /Uo mm Rp1½"	Z mm Rp½"
300		Rp1"/260	Rp1"/260	260	ø110x180/465	360	465	260	465	
500		Rp1½"/270	Rp1½"/270	270	ø110x180/515	370	515	270	515	
1000		Rp1½"/360	Rp1½"/320	360	ø200x280/665	460	665	360	2x665	360
1500		Rp1½"/360	Rp1½"/320	360	ø200x280/665	2x 690/770	665	580	1x280/2x665	580

General parameters

L Capacity
H, mm Height
C, mm Length
øD, mm Diameter
kg Weight

Inlets / Outlets

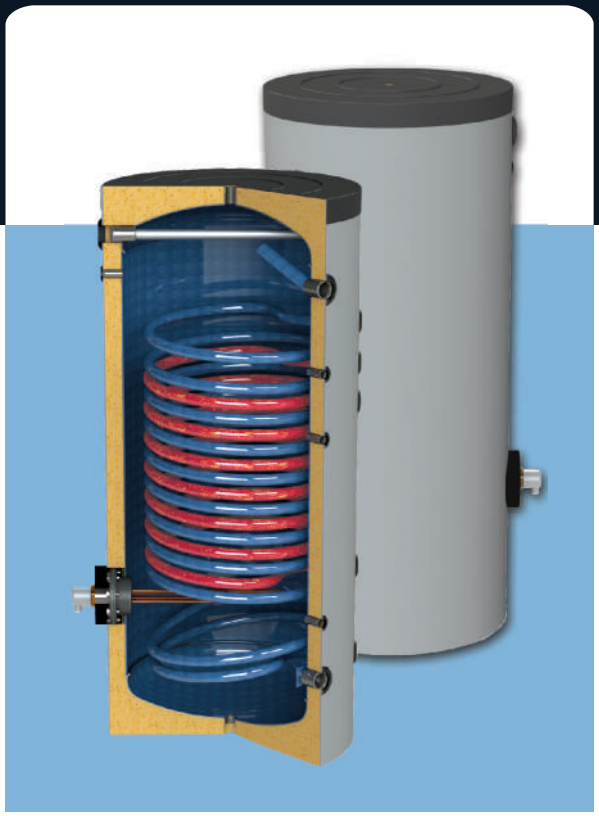
Cold water inlet
Hot water outlet
Sensor sleeve for thermostat
Air vent sleeve
Inspection opening / flange
Anode
Recirculation
Thermometer
Sleeve for Electric element on water tank body
Sleeve for Electric element on inspection opening flange
Drain sleeve
Additional sensor sleeve

Heat-exchanger coils

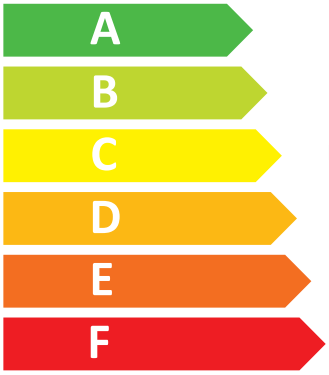
S1 Lower coil
S2 Upper coil
S1/S2 m² Heat exchange surface S1/S2
S1/S2 L Coil capacity S1/S2
S1/S2 kW (m³/h) Prolonged power acc. to DIN 4708; 80°C/60°C/45°C, S1/S2
S1/S2 NL 60°C NL- power coefficient at 60°C, S1/S2
S1/S2 Δp, mbar Pressure drop Δp, S1/S2
S1i/S1o mm Inlet/Outlet Lower coil S1
S2i/S2o mm Inlet/Outlet Upper coil S2

series SON PRL

with two parallel coils



Solar water heater with to parallel coils with a large heat exchange surface.
Internal threaded terminals.
Possibility of electricity supply (electric heater) and with independent heat sources (solar collectors, boiler).
Suitable for solar and space-heating systems.



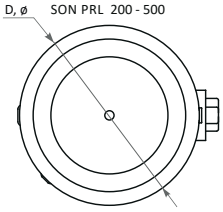
Energy efficiency
Directive 2010/30/EU,
Regulation 812/2013:Class C

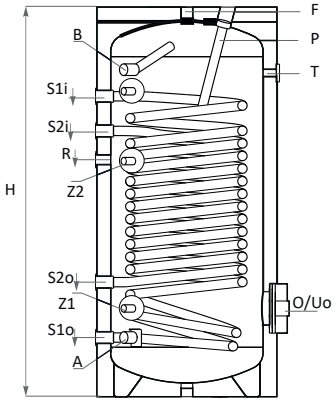
Insulation	High efficiency insulation (DIN 4753-8): rigid PU, thickness 50 mm. Outer lining of PVC with RAL 9006 color.
Water tank	Water tank of low-carbon steel S235JR. Complex corrosion protection realized by means of titanium enamel (DIN 4753-3) and anode protection (DIN 4753-6). Convenient inspection opening. Operating pressure: 10 bar Test pressure: 15 bar Maximum temperature: 95°C
Inlets / Outlets	Connections for temperature sensor. All threads are internal.
Two heat-exchanger coils	Parallel coils with a large heat exchange surface. Test pressure: 25 bar Maximum temperature: 110°C

Base equipment	Thermometer. Sensor bushing. Safety valve, 8 bar. Adjustable foot for models up to 500 L. (See p. 72).
Optional equipment	Kit for electric heating (Electric heating element and Thermostat with integrated thermal protection) with an optional power (See p. 72).

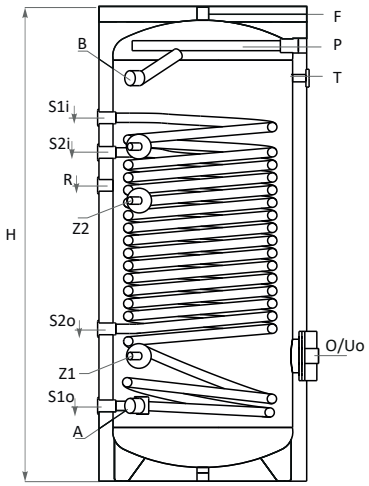
Vertical models

L	Model	Code
200	SON 200 PRL	01030106203842
300	SON 300 PRL	01030106203844
500	SON 500 PRL	01030106203846





SON PRL 200 - 300



SON PRL 500

Vertical models SON PRL

General parameters | Heat-exchanger coils

L	H mm	D mm ∅	kg	S1/S2 m²	S1/S2 L	S1/S2 kW (m^3/h)	S1/S2 NL 60°C	S1/S2 Δp, mbar	S1i/S1o mm Rp1"	S2i/S2o mm Rp1"
200	1340	ø560	90	0.9/0.5	6.14/3.5	29(0.71)/18(0.44)	4.5/1.3	75/55	982/202	857/402
300	1420	ø660	125	1.35/0.8	8.9/5.36	58(1.42)/25(0.61)	10/1.8	150/65	1085/214	960/414
500	1720	ø750	196	1.9/1.2	12.6/8.0	72(1.77)/34(0.84)	28/2.8	210/90	1312/272	1187/550

Inlets / Outlets

L	A mm	B mm	G mm Rp½"	F mm Rp1"	O mm	P mm Rp1¼"	R mm	T mm Rp½"	Uo mm Rp1½"	Y mm Rp1"	Z1/ Z2 mm Rp½"
200	Rp1"/202	Rp1"/1138	1037	1340	ø110x180/309	1340	Rp¾"/757	1138	309	30	302/752
300	Rp1"/214	Rp1"/1181	1103	1420	ø110x180/319	1420	Rp¾"/856	1169	319	30	319/851
500	Rp1½"/272	Rp1½"/1455	1208	1720	ø110x180/452	1572	Rp1"/1187	1455	452	30	452/1013

General parameters

L Capacity
H, mm Height
øD, mm Diameter
kg Weight

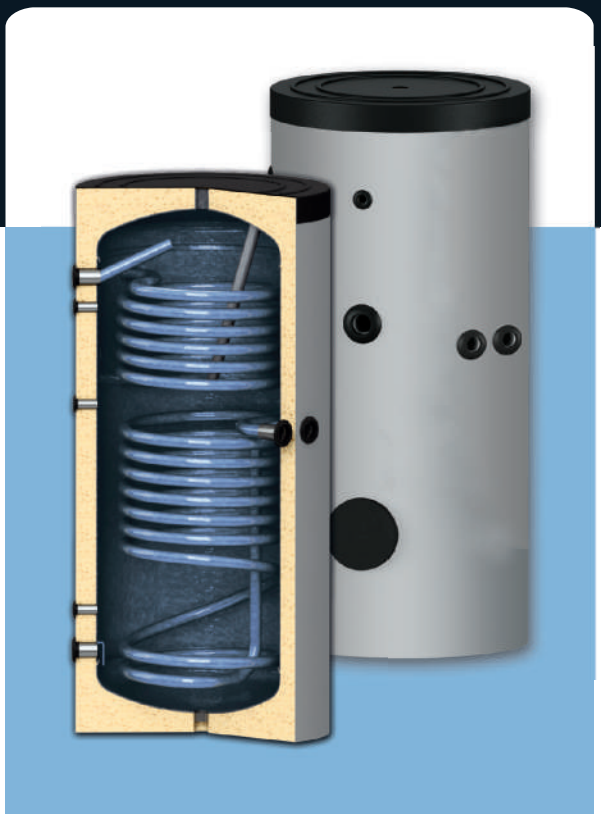
Inlets / Outlets

A, mm Cold water inlet
B, mm Hot water outlet
G, mm Sensor sleeve for thermostat
F, mm Air vent sleeve
O, mm Inspection opening / flange
P, mm Anode
R, mm Recirculation
T, mm Thermometer
U, mm Sleeve for Electric element: on water tank body
Uo, mm on inspection opening flange
Y, mm Drain sleeve
Z, mm Additional sensor sleeve

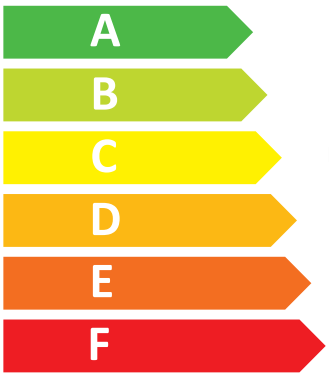
Heat-exchanger coils

S1 Lower coil
S2 Upper coil
S1/S2 m² Heat exchange surface S1/S2
S1/S2 L Coil capacity S1/S2
S1/S2 kW (m^3/h) Prolonged power acc. to DIN 4708; 80°C/60°C/45°C, S1/S2
S1/S2 NL 60°C NL- power coefficient at 60°C, S1/S2
S1/S2 Δp, mbar Pressure drop Δp, S1/S2
S1i/S1o mm Inlet/Outlet Lower coil S1
S2i/S2o mm Inlet/Outlet Upper coil S2

SUNSYSTEM
SOLAR WATER HEATER SON ST
with two coils



Solar water heater with two coils and Inlet / Outlet for a solar station.
Floor installation.
Possibility of optional equipment to the base model.
Suitable for solar and space-heating systems.



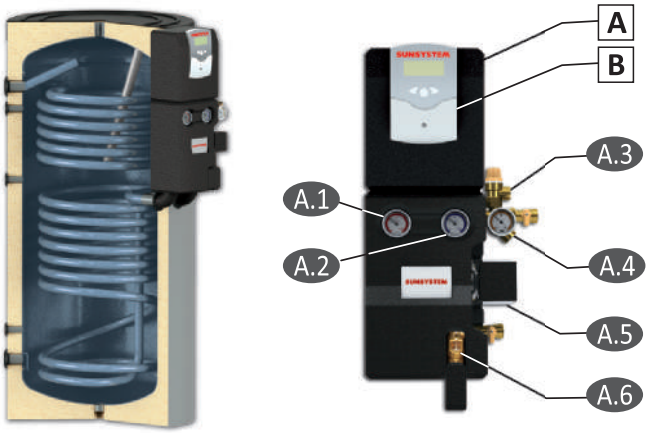
Energy efficiency
Directive 2010/30/EU,
Regulation 812/2013:Class C

Insulation	High efficiency insulation (DIN 4753-8): rigid PU, thikness 50 mm (up to 500 Liters) Outer lining of PVC with RAL 9006 color.
Water tank	Water tank of low-carbon steel S235JR. Complex corrosion protection realized by means of titanium enamel (DIN 4753-3) and anode protection (DIN 4753-6). Convenient inspection opening/flange Operating pressure: 10 bar Test pressure: 15 bar Maximum temperature: 95°C
Inlets/ Outlets	Connection for temperature sensor. External thread for following inlets/outlets: cold water, hot water, coils, recirculation. Inlet/Outlet arrangement on 180 angle degrees.
Two heat-exchanger coils	Enables the tank to utilize an external sources of renewable energy. Operating pressure: 16 bar Test pressure: 25 bar Maximum temperature: 110°C

Base equipment	Thermometer. Sensor bushing. Safety valve, 8 bar. Adjustable foot for models up to 500 L. (See p. 72).
Optional equipment	Kit for electric heating (Electric heating element with integrated Thermostat) (See p. 72).

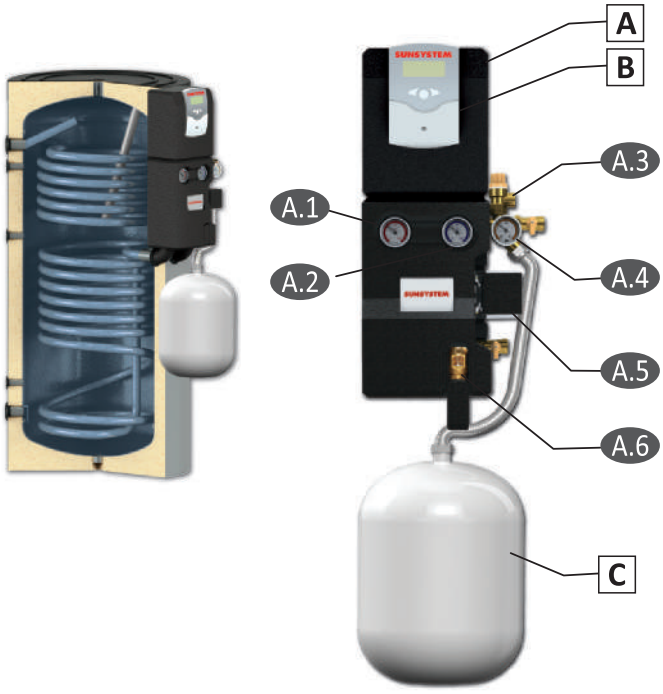
SON ST
with two coils
Vertical modification SON ST

L	Model	Code
200	SON 200 ST	01030106203052
300	SON 300 ST	01030106203054
400	SON 400 ST	01030106203055
500	SON 500 ST	01030106203056



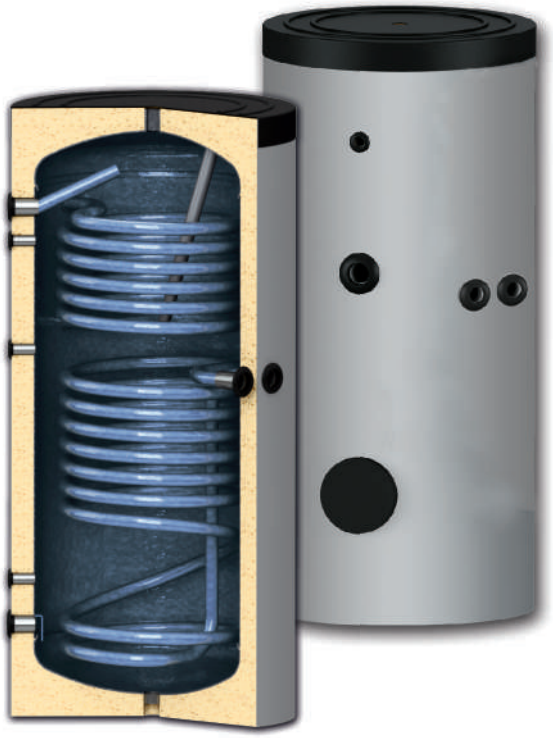
Optional equipment ST FC:

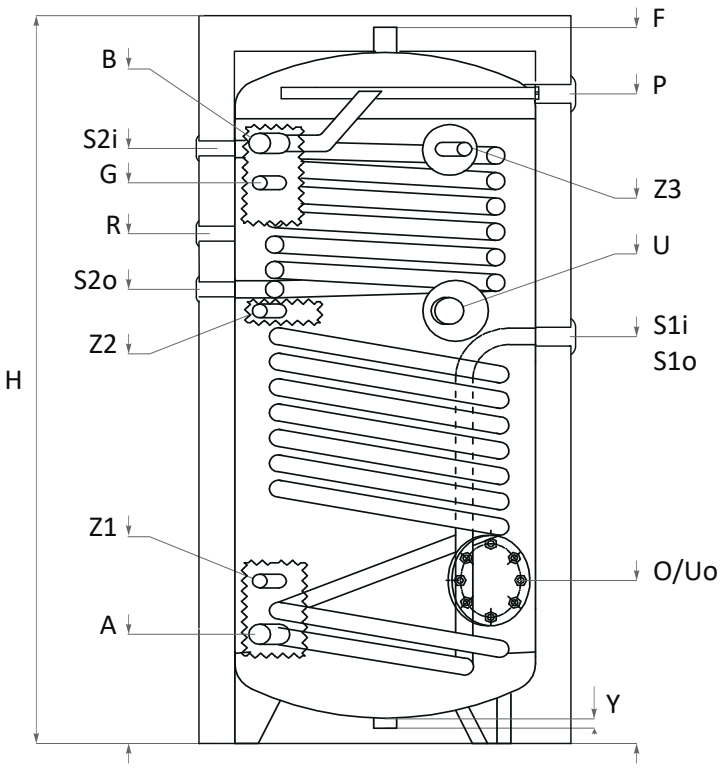
A. – Twin-line solar station
A.1. – Return temperature indicator
A.2. – Flow temperature indicator
A.3. – Pressure relief valve
A.4. – Pressure gauge
A.5. – Solar circulation pump
A.6. – Flow meter
B. – Solar controller



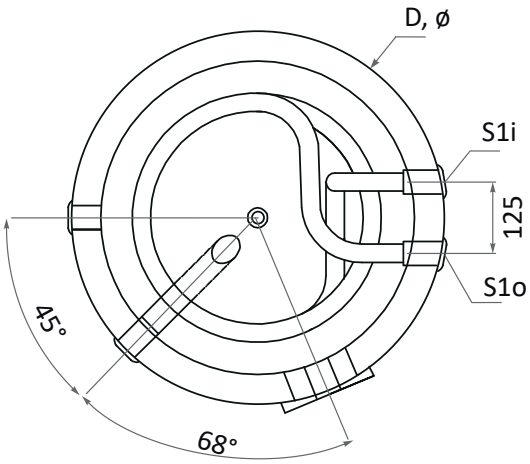
Optional equipment ST FCA:

A. – Twin-line solar station
A.1. – Return temperature indicator
A.2. – Flow temperature indicator
A.3. – Pressure relief valve
A.4. – Pressure gauge
A.5. – Solar circulation pump
A.6. – Flow meter
B. – Solar controller
C. – Expansion vessel





SON ST 200 - 500



Vertical models SON ST

General parameters / Heat-exchanger coils

L	H mm	D mm ∅	kg	S1/S2 m²	S1/S2 L	S1/S2 kW (m^3/h)	S1/S2 NL 60°C	S1/S2 Δp, mbar	S1i/S1o mm Rp1"	S2i/S2o mm Rp1"
200	1340	ø560	110	0.9/0.6	5.55/3.70	29(0.71)/18(0.44)	4.5/1.5	75/55	692/692	1112/812
300	1420	ø660	132	1.2/0.9	7.40/5.55	53(1.30)/21(0.52)	11/2	120/70	805/805	1170/894
400	1470	ø750	174	1.5/1	9.25/6.17	62(1.52)/27(0.66)	13/2.2	180/80	850/850	1210/952
500	1720	ø750	199	1.8/1.2	11.10/7.40	72(1.77)/34(0.84)	18/2.8	210/90	960/960	1350/1062

Inlets / Outlets

L	A mm	B mm	G mm Rp½"	F mm Rp1"	O mm	P mm Rp1¼"	R mm	T mm Rp½"	U/Uo mm Rp1½"	Y mm Rp1"	Z1/ Z2 / Z3 mm Rp½"
200	Rp1"/202	Rp1"/1168	1037	1340	ø110x180/309	1340	Rp¾"/987	1138	752/309	30	302/752/1138
300	Rp1"/215	Rp1"/1182	1104	1410	ø110x180/320	1410	Rp¾"/957	1170	852/320	30	320/852/1170
400	Rp1¼"/270	Rp1¼"/1240	1054	1480	ø110x180/450	1337	Rp1"/1105	1152	901/450	30	450/901/1452
500	Rp1½"/270	Rp1½"/1453	1206	1710	ø110x180/450	1568	Rp1"/1206	1453	1011/450	30	450/1011/1453

General parameters

L Capacity
H, mm Height
øD, mm Diameter
kg Weight

Inlets / Outlets

A, mm Cold water inlet
B, mm Hot water outlet
G, mm Sensor sleeve for thermostat
F, mm Air vent sleeve
O, mm Inspection opening / flange
P, mm Anode
R, mm Recirculation
T, mm Thermometer
U, mm Sleeve for Electric element: on water tank body
Uo, mm on inspection opening flange
Y, mm Drain sleeve
Z, mm Additional sensor sleeve

Heat-exchanger coils

S1 Lower coil
S2 Upper coil
S1/S2 m² Heat exchange surface S1/S2
S1/S2 L Coil capacity S1/S2
S1/S2 kW (m^3/h) Prolonged power acc. to DIN 4708; 80°C/60°C/45°C, S1/S2
S1/S2 NL 60°C NL- power coefficient at 60°C, S1/S2
S1/S2 Δp, mbar Pressure drop Δp, S1/S2
S1i/S1o mm Inlet/Outlet Lower coil S1
S2i/S2o mm Inlet/Outlet Upper coil S2

Optional equipment ST FC

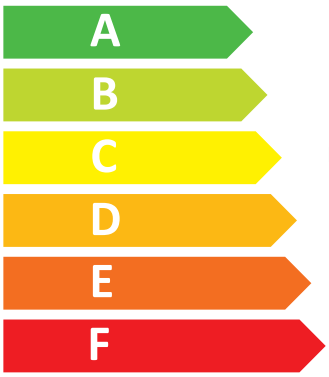
L	Solar station	Solar controller
200	✓	✓
300	✓	✓
400	✓	✓
500	✓	✓

Optional equipment ST FCA

L	Solar station	Solar controller	Expansion vessel Capacity, L
200	✓	✓	12
300	✓	✓	18
400	✓	✓	24
500	✓	✓	24

SUNSYSTEM
SOLAR WATER HEATER
(external thread)

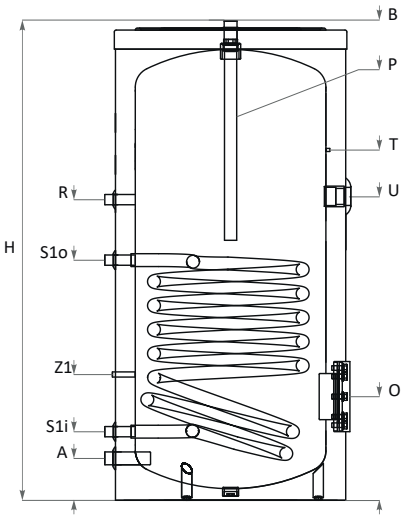
Solar water heater for direct / indirect heating.
Suitable for solar and space-heating systems.
Suitable for drinking water production.
Floor installation.



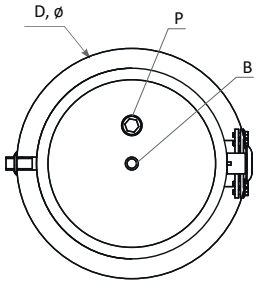
Energy efficiency
Directive 2010/30/EU,
Regulation 812/2013:Class C

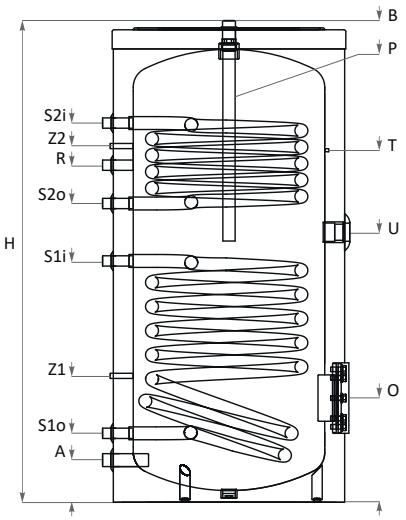
Insulation	High efficiency insulation (DIN 4753-8): rigid PU, thikness 50 mm (up to 500 Liters) Outer lining of PVC with RAL 9006 color.
Water tank	Water tank of low-carbon steel S235JR. Complex corrosion protection realized by means of titanium enamel (DIN 4753-3) and anode protection (DIN 4753-6). Convenient inspection opening/flange Operating pressure: 10 bar Test pressure: 15 bar Maximum temperature: 95°C
Inlets/ Outlets	Connection for temperature sensor. External thread for following inlets/outlets: cold water, hot water, coils, recirculation. Inlet/Outlet arrangement on 180 angle degrees.
One or two heat-exchanger coils (SN-D / SON-D)	Enables the tank to utilize an external sources of renewable energy. Operating pressure: 16 bar Test pressure: 25 bar Maximum temperature: 110°C

Base equipment	Thermometer. Sensor bushing. Safety valve, 8 bar. Adjustable foot for models up to 500 L. (See p. 72).
Optional equipment	Kit for electric heating (Electric heating element with integrated Thermostat) (See p. 72).

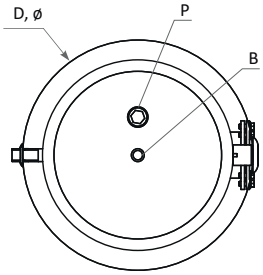


SN-D 120-500





SON-D 200-500



Vertical models SN-D

General parameters | Heat-exchanger coil

L	H mm	D mm ∅	kg	S1 m²	S1 L	S1 L/h	S1 NL 60°C	S1 Δp, mbar	S1i/S1o mm Rp¾"
120	814	ø600	59	0.6	3.8	460	1.7	30	450/180
150	969	ø600	66	0.7	4.4	580	2.1	50	520/180
200	1232	ø600	73	0.9	5.7	710	3.6	70	630/180
300	1697	ø600	94	1.2	7.5	970	8	90	580/180
400	1660	ø700	151	1.5	9.4	1180	11	120	635/205
500	1783	ø750	195	1.8	11.3	1400	14	250	685/205

Inlets / Outlets

L	A mm Rp1"	B mm Rp1"	O mm	P mm Rp1¼"	R mm Rp¾"	T mm M8	U mm Rp1½"	Y mm Rp1"	Z mm 9mm
120	110	814	DN 110 / 272	814	520	601	520	20	330
150	110	969	DN 110 / 272	969	660	756	600	20	330
200	110	1232	DN 110 / 272	1232	780	919	800	20	330
300	110	1697	DN 110 / 272	1697	1045	1384	770	20	380
400	127	1660	DN 110 / 278	1660	1065	1325	770	20	420
500	128	1783	DN 110 / 285	1783	1125	1441	920	20	445

Vertical models SON-D

General parameters | Heat-exchanger coils

L	H mm	D mm ∅	kg	S1/S2 m²	S1/S2 L	S1/S2 L/h	S1/S2 NL 60°C	S1/S2 Δp, mbar	S1i/S1o mm Rp¾"	S2i/S2o mm Rp¾"
200	1232	ø600	85	0.9/0.6	5.7/3.8	710/410	3.6/1.23	70/30	630/180	950/780
300	1697	ø600	114	1.2/0.8	7.5/5.0	970/605	8/1.8	90/35	580/180	1215/945
400	1660	ø700	166	1.5/1.0	9.4/6.3	1180/720	11/2.1	120/45	635/205	1261/965
500	1783	ø750	215	1.8/1.2	11.3/7.5	1400/830	14/2.5	250/55	685/205	1325/1020

Inlets / Outlets

L	A mm Rp1"	B mm Rp1"	O mm	P mm Rp1¼"	R mm Rp¾"	T mm M8	U mm Rp1½"	Y mm Rp1"	Z1 / Z2 mm 9mm
200	110	1232	DN 110 / 272	1232	780	919	705	20	330 / 930
300	110	1697	DN 110 / 272	1697	1045	1384	770	20	380 /1145
400	127	1660	DN 110 / 278	1660	1065	1325	770	20	420 / 1165
500	128	1783	DN 110 / 285	1783	1125	1441	920	20	445 / 1225

General parameters

- **L** Capacity
- **H, mm** Height
- **øD, mm** Diameter
- **kg** Weight

Inlets / Outlets

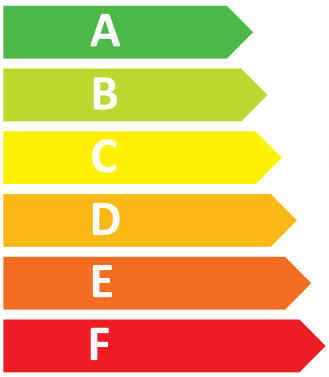
- **A, mm** Cold water inlet
- **B, mm** Hot water outlet
- **O, mm** Inspection opening / flange
- **P, mm** Anode
- **R, mm** Recirculation
- **T, mm** Thermometer
- **U, mm** Sleeve for Electric element on water tank body
- **Y, mm** Drain sleeve
- **Z, mm** Additional sensor sleeve

Heat-exchanger coils

- **S1** Lower coil
- **S2** Upper coil
- **S1/S2, m²** Heat exchange surface S1/S2
- **S1/S2, L** Coil capacity S1/S2
- **S1/S2, L/h** Prolonged power acc. to DIN 4708; 10°C/80°C/45°C, S1/S2
- **S1/S2, NL 60°C** NL- power coefficient at 60°C, S1/S2
- **S1/S2, Δp, mbar** Pressure drop Δp, S1/S2
- **S1i/S1o, mm** Inlet/Outlet Lower coil S1
- **S2i/S2o, mm** Inlet/Outlet Upper coil S2

SUNSYSTEM
SOLAR WATER HEATER
(external thread)

Solar water heater for direct / indirect heating.
Suitable for solar and space-heating systems.
Suitable for domestic hot water production.
With extra-sized heat exchanger surface.
Floor installation.



Energy efficiency
Directive 2010/30/EU,
Regulation 812/2013:Class C

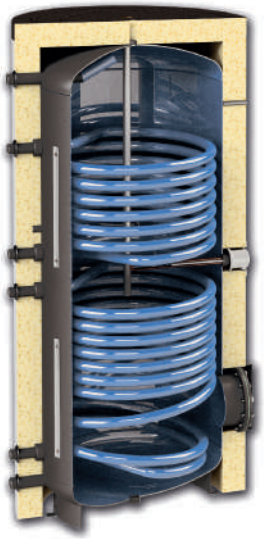
Insulation	High efficiency insulation (DIN 4753-8): removable insulation of fleece, with thickness of 100 mm. Outer lining of PVC with RAL 9006 color.
Water tank	Water tank of low-carbon steel S235JR. Complex corrosion protection realized by means of titanium enamel (DIN 4753-3) and anode protection (DIN 4753-6). Convenient inspection opening (180x110 x LK 150). Operating pressure: 10 bar Test pressure: 15 bar Maximum temperature: 95°C
Inlets/ Outlets	Connection for temperature sensor. External thread, flat seals, for following inlets/outlets: cold water, hot water, coils, recirculation. Inlet/Outlet arrangement on 180 angle degrees.
One or two heat-exchanger coils (models SN-EXT / SON-EXT)	Enables the tank to utilize an external sources of renewable energy. Operating pressure: 16 bar Test pressure: 25 bar Maximum temperature: 110°C

Base equipment	Thermometer. Sensor bushing. Safety valve, 8 bar. Adjustable foot for models up to 500 L. (See p. 72).
Optional equipment	Kit for electric heating (Electric heating element with integrated Thermostat) (See p. 72).

SN-EXT
with one coil

Vertical modification SN EXT

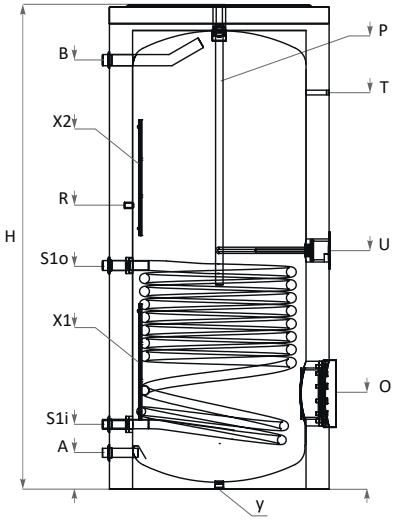
L	Model	Code
120	SN EXT 120	01030106202300
150	SN EXT 150	01030106202301
200	SN EXT 200	01030106202302
300	SN EXT 300	01030106202304
400	SN EXT 400	01030106202305
500	SN EXT 500	01030106202306
750	SN EXT 750	01030106202307
1000	SN EXT 1000	01030106202308



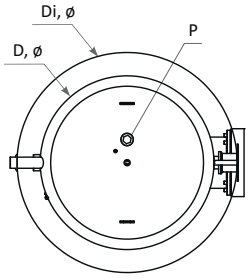
SON-EXT
with two coils

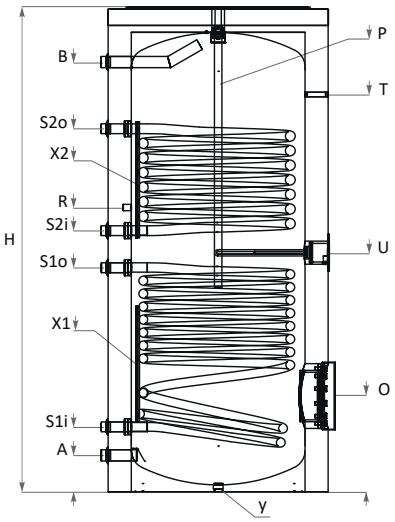
Vertical modification SON EXT

L	Model	Code
300	SON EXT 300	01030106203314
400	SON EXT 400	01030106203315
500	SON EXT 500	01030106203316
750	SON EXT 750	01030106203317
1000	SON EXT 1000	01030106203318

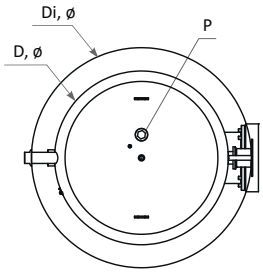


SN EXT
120 - 1000





SON EXT
300 - 1000



Vertical models SN EXT

General parameters | Heat-exchanger coil

L	H mm	D / Di mm ∅	kg	S1 m²	S1 L	S1 L/h (kW)	S1 NL 60°C	S1 Δp, mbar	S1i/S1o mm
120	864	ø500/700	59	0.7	4.5	23.6 (0.57)	1.9	30	Rp1"/460/190
150	1022	ø500/700	74	1.0	6.3	30.5 (0.75)	2.5	50	Rp1"/550/190
200	1284	ø500/700	89	1.4	8.8	38.3 (0.94)	4.8	70	Rp1"/725/190
300	1645	ø550/750	136	1.4	8.8	46.0 (1.13)	11	80	Rp1"/675/205
400	1732	ø600/800	162	1.7	10.7	51.7 (1.27)	13	130	Rp1"/697/227
500	1835	ø650/850	189	2.1	13.2	65.9 (1.62)	18	280	Rp1"/875/225
750	2082	ø750/950	280	2.7	22.8	100.5 (2.47)	35	180	Rp1¼"/967/280
1000	2010	ø900/1100	373	2.9	24.5	109.5 (2.69)	41	200	Rp1¼"/920/350

Inlets / Outlets

L	A mm	B mm	O mm	P Rp1¼"	R mm Rp¾"	T M8	U mm Rp1½"	X1/X2
120	Rp1"/110	Rp1"/681	ø 110/250	✓	570	✓	520	✓/✓
150	Rp1"/110	Rp1"/836	ø 110/250	✓	660	✓	600	✓/✓
200	Rp1"/110	Rp1"/1099	ø 110/250	✓	835	✓	800	✓/✓
300	Rp1"/110	Rp1"/1460	ø 110/280	✓	1050	✓	850	✓/✓
400	Rp1"/127	Rp1"/1535	ø 110/302	✓	1122	✓	922	✓/✓
500	Rp1"/130	Rp1"/1630	ø 110/301	✓	1120	✓	920	✓/✓
750	Rp1½"/157	Rp1½"/1855	ø 205/413	✓	1227	✓	1032	✓/✓
1000	Rp1½"/190	Rp1½"/1800	ø 205/415	✓	1240	✓	1016	✓/✓

Vertical models SON EXT

General parameters | Heat-exchanger coils

L	H mm	D / Di mm ∅	kg	S1/S2 m²	S1/S2 L	S1/S2 L/h (kW)	S1/S2 NL 60°C	S1/S2 Δp, mbar	S1i/S1o mm	S2i/S2o mm
300	1645	ø550/750	156	1.4/1.0	8.8/6.3	46(1.13) / 26.9 (0.66)	11/2	80/40	Rp1"/675/205	Rp1"/1290/950
400	1732	ø600/800	178	1.7/1.2	10.7/7.6	51.7 (1.27) / 32.2 (0.79)	13/2.2	130/50	Rp1"/697/227	Rp1"/1362/1022
500	1835	ø650/850	234	2.1/1.5	13.2/9.4	65.9 (1.62) / 36.8 (0.91)	18/2.8	280/60	Rp1"/875/225	Rp1"/1490/1020
750	2082	ø750/950	344	2.7/1.9	22.8/16.0	100.5 (2.47) / 49.7 (1.22)	35/13	180/40	Rp1¼"/967/280	Rp1¼"/1567/1127
1000	2010	ø850/1050	400	2.9/1.9	24.5/16.0	109.5 (2.69) / 497 (1.22)	41/13	200/40	Rp1¼"/920/350	Rp1¼"/1525/1140

Inlets / Outlets

L	A mm	B mm	O mm	P Rp1¼"	R mm Rp¾"	T M8	U mm Rp1½"	X1/X2
300	Rp1"/110	Rp1"/1460	ø 110/280	✓	1050	✓	850	✓/✓
400	Rp1"/127	Rp1"/1535	ø 110/302	✓	1122	✓	922	✓/✓
500	Rp1"/130	Rp1"/1630	ø 110/300	✓	1120	✓	920	✓/✓
750	Rp1½"/157	Rp1½"/1855	ø 205/413	✓	1227	✓	1032	✓/✓
1000	Rp1½"/190	Rp1½"/1800	ø 205/415	✓	1240	✓	1016	✓/✓

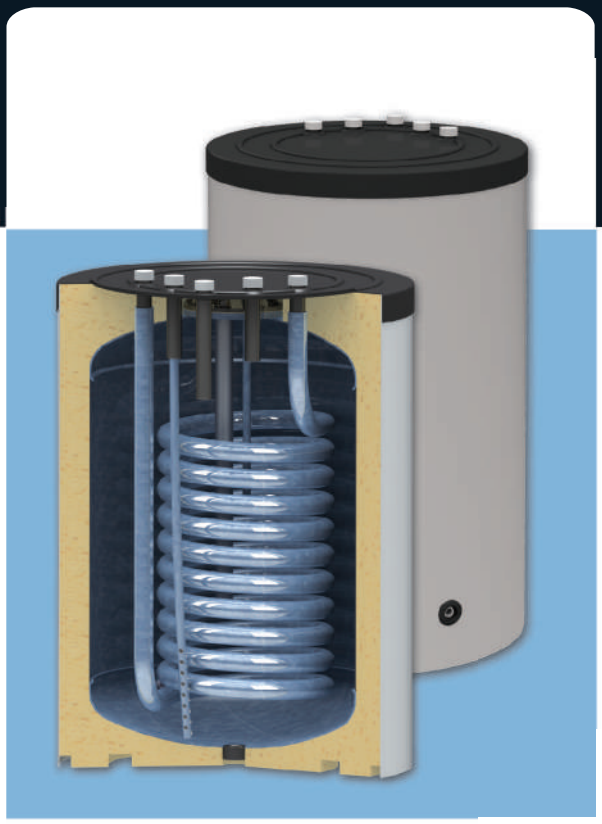
General parameters

- **L** Capacity
- **H, mm** Height
- **øD / Di, mm** Diameter without insulation / with insulation
- **kg** Weight

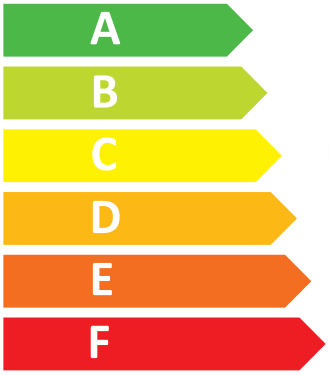
Inlets / Outlets

- **A, mm** Cold water inlet
- **B, mm** Hot water outlet
- **O, mm** Inspection opening / flange
- **P, mm** Anode
- **R, mm** Recirculation
- **T, mm** Thermometer
- **U, mm** Sleeve for Electric element on water tank body
- **X** Rail for sensor multi level mounting

SUNSYSTEM
WATER HEATER
(for gas boilers)

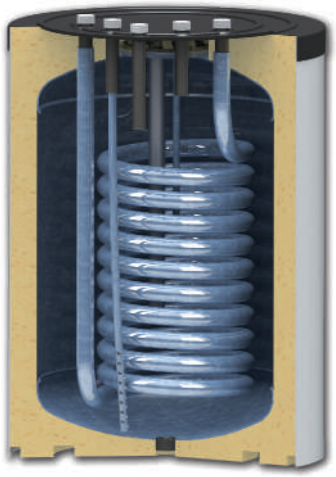


Compact water heater for domestic hot water.
Inlets/Outlets with external thread.
The flange and all connections are located on the top of water heater.
Suitable for solar and space-heating systems.



Energy efficiency
Directive 2010/30/EU,
Regulation 812/2013:Class C

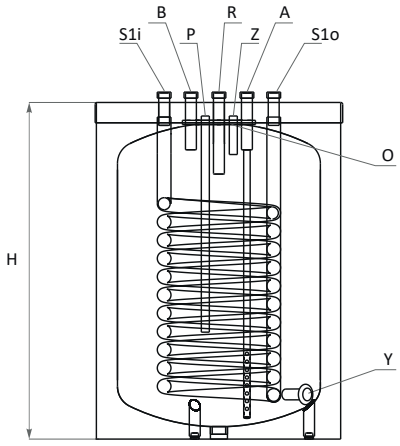
Insulation	High efficiency insulation (DIN 4753-8): rigid PU, thickness 50 mm. Outer lining of PVC with RAL 9006 color.
Water tank	Water tank of low-carbon steel S235JR. Complex corrosion protection realized by means of titanium enamel (DIN 4753-3) and anode protection (DIN 4753-6). Convenient inspection opening. (210 x 150 x LK 180), located on the top of water tank. Operating pressure: 10 bar Test pressure: 15 bar Maximum temperature: 95°C
Inlets/ Outlets	All connections are located on the top of water tank. External thread, flat seals, for following inlets/outlets: cold water, hot water, coils, recirculation.
One heat-exchanger coil	Enables the tank to utilize an external sources of renewable energy. Operating pressure: 16 bar Test pressure: 25 bar Maximum temperature: 110°C



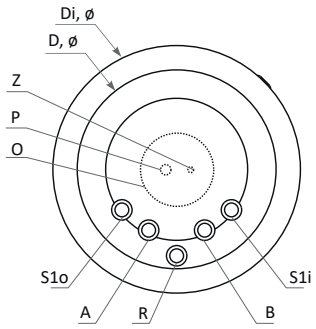
SWUP EXT
with one coil

Vertical modification SWUP EXT

L	Model	Code
120	SWUP EXT 120	01030107202020
150	SWUP EXT 150	01030107202021
200	SWUP EXT 200	01030107202022



SWUP EXT
120 - 200



General parameters

L	H mm	D / Di mm ∅	kg
120	853	ø500/600	88
150	1010	ø500/600	93
200	1300	ø500/600	104

Coil | Sleeves

Vertical modification SWUP EXT

L		S1 m²	S1 L	S1 L/h (kW)	S1 NL 60°C	S1 Δp, mbar	S1 m³/h	S1i/S1o mm	A mm	B mm	O mm	P M8	R mm	Y mm	Z 9 mm
120		1.2	7.5	980 (39.9)	1.8	100	1.7	Rp¾"	Rp¾"	Rp¾"	DN 100	✓	Rp¾"	Rp½"	✓
150		1.3	8.2	1100 (44.8)	2.1	120	1.9	Rp¾"	Rp¾"	Rp¾"	DN 140	✓	Rp¾"	Rp½"	✓
200		1.32	8.7	1130 (45.7)	2.2	125	1.9	Rp¾"	Rp¾"	Rp¾"	DN 140	✓	Rp¾"	Rp½"	✓

General parameters

L Capacity
H, mm Height
øD / Di, mm Diameter without insulation / with insulation
kg Weight

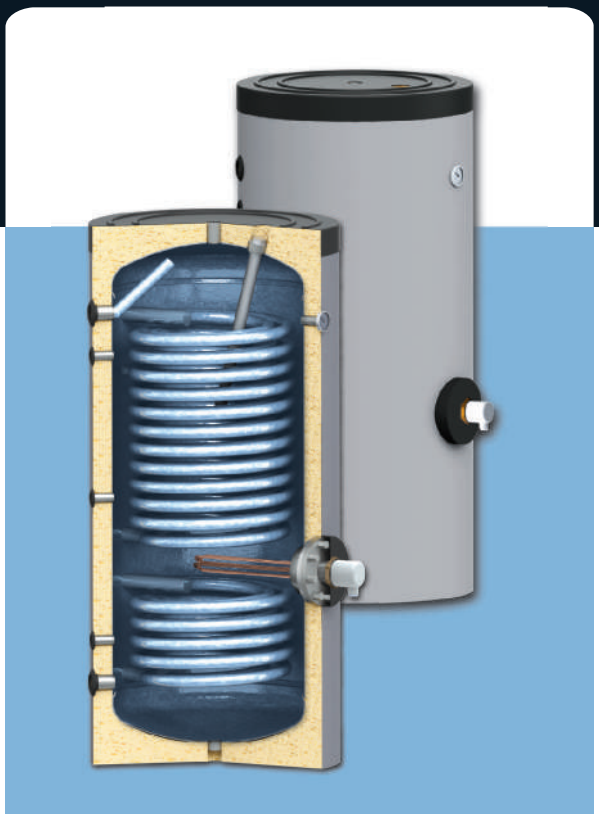
Inlets / Outlets

A, mm Cold water inlet
B, mm Hot water outlet
O, mm Inspection opening / flange
P, mm Anode
R, mm Recirculation
Y, mm Drain sleeve
Z, mm Pipe for sensor

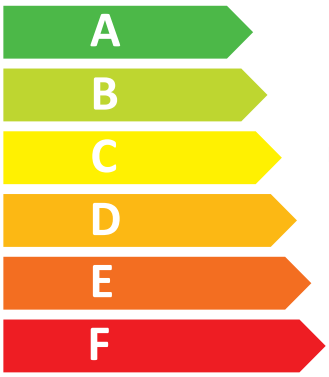
Heat-exchanger coil

S1 Heat-exchanger coil
S1, m² Heat exchange surface S1
S1, L Coil capacity S1
S1/S2, L/h (kW) Prolonged power acc. to DIN 4708; 10°C/80°C/45°C, S1
S1/S2, NL 60°C NL- power coefficient at 60°C, S1
S1/S2, Δp, mbar Pressure drop Δp, S1
S1, m³/h Flow rate of coil
S1i/S1o, mm Inlet/Outlet of coil S1

SUNSYSTEM
WATER HEATER
for heat pump systems



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



Energy efficiency
Directive 2010/30/EU,
Regulation 812/2013:Class C

Insulation	High efficiency insulation (DIN 4753-8): rigid PU, thickness 50 mm. Outer lining of PVC with RAL 9006 color.
Water tank	Water tank of low-carbon steel S235JR. Complex corrosion protection realized by means of titanium enamel (DIN 4753-3) and anode protection (DIN 4753-6). Convenient inspection opening. Operating pressure: 10 bar Test pressure: 15 bar Maximum temperature: 95°C
Inlets / Outlets	Connections for temperature sensor. All threads are internal. Inlet/Outlet arrangement on 45 angle degrees.
One or two heat-exchanger coils (models SWPN / SWPN-L/ SWP2N)	The height of SWPN-L model is compensated by its smaller diameter, heat exchanger coil with increased surface. Operating pressure: 16 bar Test pressure: 25 bar Maximum temperature: 110°C

Base equipment	Thermometer. Sensor bushing. Safety valve, 8 bar. Adjustable foot. (See p. 72).
Optional equipment	Kit for electric heating (Electric heating element and Thermostat with integrated thermal protection) with an optional power (See p. 72).

SWPN-L
with one coil

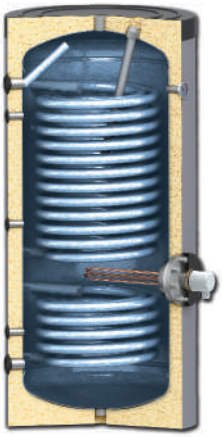
Vertical models.

L	Model	Code
300	SWPN-L 300	01030107202014
400	SWPN-L 400	01030107202015
500	SWPN-L 500	01030107202016

SWPN
with one coil

Vertical models.

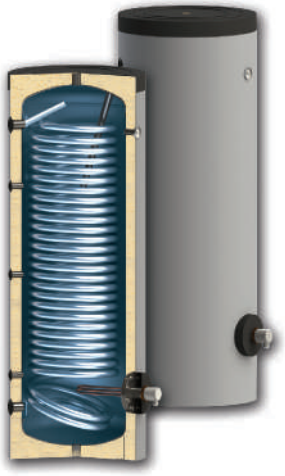
L	Model	Code
150	SWPN 150	01030107202001
200	SWPN 200	01030107202002
300	SWPN 300	01030107202004
400	SWPN 400	01030107202005
500	SWPN 500	01030107202006

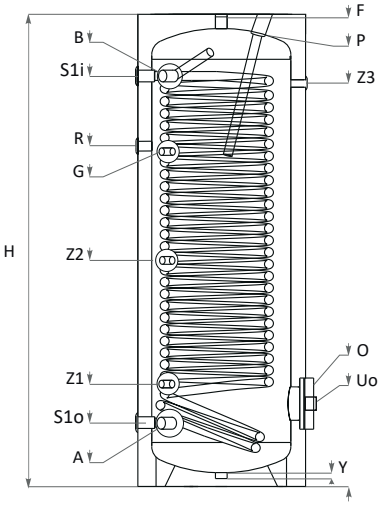


SWP2N
with two coils

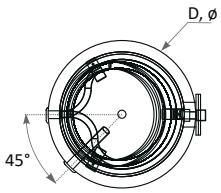
Vertical models.

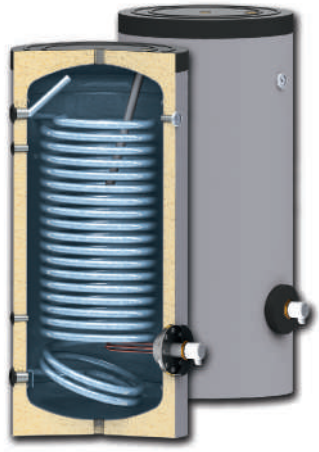
L	Model	Code
300	SWP2N 300	01030107203004
400	SWP2N 400	01030107203005
500	SWP2N 500	01030107203006

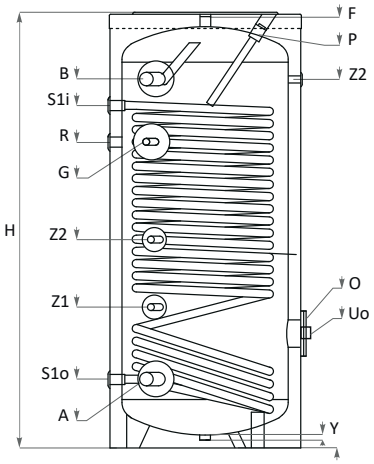




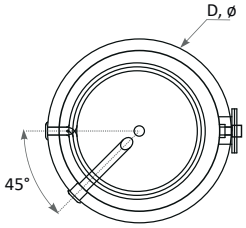
SWPN-L 300-500

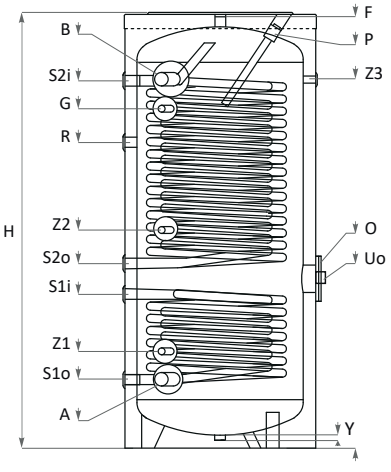




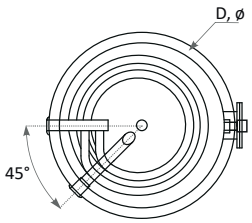


SWPN 150-500





SWP2N 300 - 500



Vertical models SWPN-L

General parameters | Heat-exchanger coil

	D mm ∅	H mm	kg	S1 m²	S1 L	S1 kW (m³/h)	S1 Δp, mbar	S1i/S1o mm Rp1"
300	ø610	1695	131	3.3	20.4	90 (2.21)	230	1476/228
400	ø710	1669	175	3.9	23.6	115 (2.70)	379	1390/260
500	ø710	1895	196	4.6	28.3	130 (3.19)	569	1626/250

Inlets / Outlets

	A mm	B mm	G mm Rp½"	F mm Rp1"	O mm	P mm Rp1¼"	R mm	Uo mm Rp1½"	Y mm Rp1"	Z1/ Z2 / Z3 mm Rp½"
300	Rp1"/228	Rp1"/1476	1220	1695	ø110x180/298	1695	Rp¾"/1224	298	30	368/813/1204
400	Rp1¼"/260	Rp1¼"/1420	1176	1669	ø110x180/345	1524	Rp1"/1180	345	30	420/695/1100
500	Rp1½"/250	Rp1½"/1643	1298	1895	ø110x180/345	1750	Rp1"/1392	345	30	433/966/1372

Vertical models SWPN

General parameters | Heat-exchanger coil

	H mm	D mm ∅	kg	S1 m²	S1 L	S1 kW (m³/h)	S1 NL 60°C	S1 Δp, mbar	S1i/S1o mm Rp1"
150	1070	ø 560	70	1.4	8.6	40.4 (0.99)	6	120	872/182
200	1340	ø 560	90	1.9	11.7	51 (1.25)	8	150	1122/182
300	1420	ø 650	121	2.3	14.8	62 (1.52)	20	400	1155/215
400	1470	ø 750	165	2.8	17.2	75 (1.84)	27	600	1210/270
500	1720	ø 750	190	3.3	20	84 (2.06)	34	710	1350/270

Inlets / Outlets

	A mm	B mm	G mm Rp½"	F mm Rp1"	O mm	P mm Rp1¼"	R mm	Uo mm Rp1½"	Y mm Rp1"	Z1/ Z2 /Z3 mm Rp½"
150	Rp1"/182	Rp1"/895	697	1070	ø110x180/309	1070	G¾"/652	309	30	410/ - /868
200	Rp1"/182	Rp1"/1160	967	1340	ø110x180/309	1340	G¾"/922	309	30	410/650/1138
300	Rp1"/215	Rp1"/1182	1054	1410	ø110x180/320	1410	G¾"/1007	320	30	430/700/1170
400	Rp1¼"/270	Rp1¼"/1240	1054	1460	ø110x180/450	1318	G1"/1105	450	30	565/720/1204
500	Rp1½"/270	Rp1½"/1453	1206	1710	ø110x180/450	1568	G1"/1206	450	30	560/800/1453

Vertical models SWP2N

General parameters | Heat-exchanger coils

	H mm	D mm ∅	kg	S1/S2 m²	S1/S2 L	S1 kW (m³/h)	S1 NL 60°C	S1 Δp, mbar	S1i/S1o mm Rp1"	S2i/S2o mm Rp1"
300	1420	ø660	145	1.2/2.7	6.5/16.1	53(1.30) / 75(1.84)	11/17	55/70	456/215	1155/578
400	1470	ø750	198	1.5/3.2	10/18.9	62(1.52) / 82(2.01)	14/22	70/85	562/270	1210/678
500	1720	ø750	236	1.8/4.36	11.8/26	72(1.77) / 94(2.31)	18/29	90/120	606/270	1446/726

Inlets / Outlets

	A mm	B mm	G mm Rp½"	F mm Rp1"	O mm	P mm Rp1¼"	R mm	Uo mm Rp1½"	Y mm Rp1"	Z1/ Z2 / Z3 mm Rp½"
300	Rp1"/215	Rp1"/1182	1170	1410	ø110x180/516	1410	Rp¾"/1007	516	30	697/1070/325
400	Rp1¼"/270	Rp1¼"/1240	1152	1460	ø110x180/618	1318	Rp1"/1105	618	30	755/1130/380
500	Rp1½"/270	Rp1½"/1475	1453	1710	ø110x180/666	1568	Rp1"/1206	666	30	858/1336/380

General parameters

L Capacity
H, mm Height
øD, mm Diameter
kg Weight

Inlets / Outlets

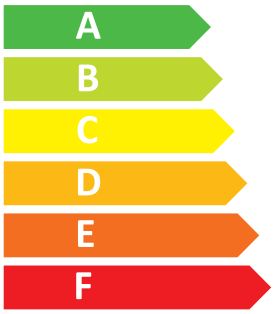
A, mm Cold water inlet
B, mm Hot water outlet
G, mm Sensor sleeve for thermostat
F, mm Air vent sleeve
O, mm Inspection opening / flange
P, mm Anode
R, mm Recirculation
Uo, mm Sleeve for Electric element on inspection opening flange
Y, mm Drain sleeve
Z, mm Additional sensor sleeve

Heat-exchanger coils

S1 Lower coil
S2 Upper coil
S1/S2 m² Heat exchange surface S1/S2
S1/S2 L Coil capacity S1/S2
S1/S2 kW (m³/h) Prolonged power acc. to DIN 4708; 80°C/60°C/45°C, S1/S2
S1/S2 NL 60°C NL- power coefficient at 60°C, S1/S2
S1/S2 Δp, mbar Pressure drop Δp, S1/S2
S1i/S1o mm Inlet/Outlet Lower coil S1
S2i/S2o mm Inlet/Outlet Upper coil S2

SUNSYSTEM
HYBRID SYSTEM
for heat pump systems

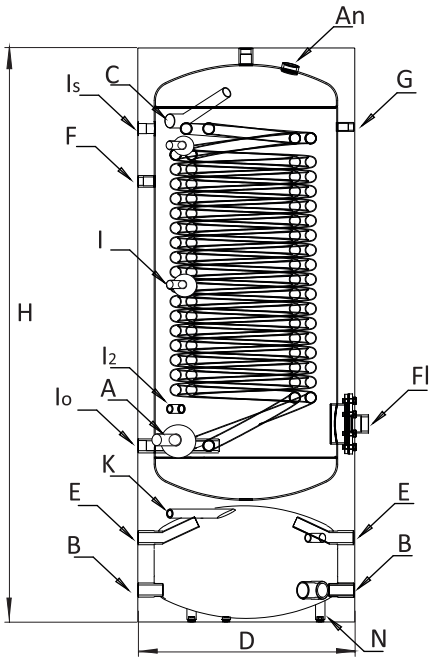
Combined product containing water heater with one heat exchanger and buffer tank in one, for direct and indirect heating with possibility of connection to heating system.The model has an extra large surface of the heat exchanger and is designed to be used for use in heat pump systems.Built – in buffer saves space and allows the hybrid system to be in stalled in smaller rooms.

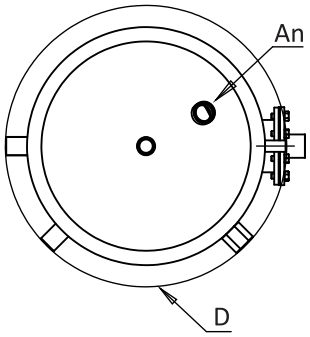


Energy efficiency
Directive 2010/30/EU,
Regulation 812/2013:Class C

Insulation	High efficiency insulation (DIN 4753-8): rigid PU, thickness 50 mm. Outer lining of PVC with RAL 9006 color.
Water tank	Water tank of low-carbon steel S235JR. Complex corrosion protection realized by means of titanium enamel (DIN 4753-3) and anode protection (DIN 4753-6). Convenient inspection opening. Operating pressure: 10 bar Test pressure: 15 bar Maximum temperature: 95°C
Inlets / Outlets	Connections for temperature sensor. All threads are internal. Inlet/Outlet arrangement on 45 angle degrees.
Heat-exchanger coil	Enables the tank to utilize an external sources of renewable energy. Operating pressure: 16 bar Test pressure: 25 bar Maximum temperature: 110°C

Base equipment	Thermometer. Sensor bushing. Safety valve, 8 bar. Adjustable foot. (See p. 72).
Optional equipment	Kit for electric heating (Electric heating element and Thermostat with integrated thermal protection) with an optional power (See p. 72).





Vertical models SWPH

General parameters / Heat-exchanger coil

L	H mm	D mm ∅	kg	Code		S1 m²	S1 L	S1 L/h (kW)	S1 NL 60°C	S1 Δp, mbar	Is/Io mm
150	1070	ø650	215	01030107202001		4.27	28	72(1.77)/94(2.31)	18/29	90/120	Rp1"/1495/530

Inlets / Outlets

L	A mm	B mm	C mm Rp½"	E mm Rp1"	F mm	P mm Rp1¼"	G mm	An mm Rp1½"	I/I2mm mm Rp1"	K mm/ L mm / N mm mm Rp½"
150	Rp1"/530	Rp1"/95	1500	1338	ø110x180	1410	Rp¾"/1470	1645	996/625	311/238/85
400	Rp1¼"/270	Rp1¼"/1240	1152	1460	ø110x180/618	1318	Rp1"/1105	618	30	755/1130/380
500	Rp1½"/270	Rp1½"/1475	1453	1710	ø110x180/666	1568	Rp1"/1206	666	30	858/1336/380

General parameters

L Capacity
H, mm Height
øD, mm Diameter
kg Weight

Inlets / Outlets

A, mm Cold water inlet
B, mm Buffer tank
C, mm Hot water outlet
E, mm Buffer outlet
F, mm Recirculation
FI, mm Inspection opening / Flange
P, mm Anode
G, mm Thermometer
An, mm Anode
K, mm Drain sleeve
L, mm Sensor buffer tank
N, mm Electric heater buffer tank
I/I2, mm Additional sensor sleeve

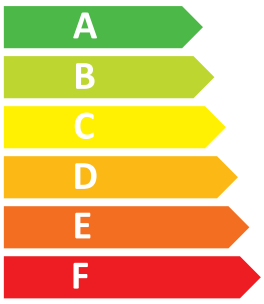
Heat-exchanger coils

S1 Lower coil

S1 m² Heat exchange surface S1
S1 L Coil capacity S1
S1 kW (m^3/h) Prolonged power acc. to DIN 4708; 80°C/60°C/45°C, S1
S1/S2 NL 60°C NL- power coefficient at 60°C, S1
S1/S2 Δp, mbar Pressure drop Δp, S1
S1i/S1o mm Inlet/Outlet coil S1

SUNSYSTEM
BUFFER TANK
for heating systems

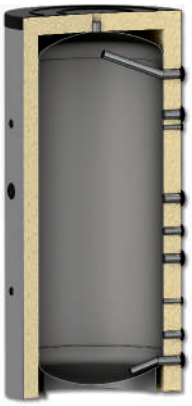
Accumulates the heat generated by boiler.
Recommended for each space-heating system.
Ensures optimum operating mode of biomass boiler, permitting its functioning at nominal power output even when the heating system does not need all heat energy produced thereby. Produced heat is accumulated and stored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



Energy efficiency
Directive 2010/30/EU,
Regulation 812/2013:Class C

Insulation	High efficiency insulation (DIN 4753-8): removable insulation of fleece, with thickness of 100 mm. Outer lining of PVC with RAL 9006 color.
Water tank	Water tank of low-carbon steel S235JR. Primer coated on the outside of the tank. Operating pressure: 3 bar Maximum temperature: 95°C
Inlets / Outlets	Connections for temperature sensor. All threads are internal. Inlet/Outlet arrangement on 180 angle degrees.
One or two heat-exchanger coils (models PR/ PR 2)	Enables the tank to utilize an external sources of renewable energy. Operating pressure: 16 bar Test pressure: 25 bar Maximum temperature: 110°C

Optional equipment	Kit for electric heating (Electric heating element and Thermostat with integrated thermal protection) with an optional power (See p. 72).



P
without coil

Vertical models.

L	Model	Code
300	P 300	09060015201003
500	P 500	09060015201004
800	P 800	09060015201005
1000	P 1000	09060015201006
1500	P 1500	09060015201007
2000	P 2000	09060015201048
2500	P 2500	09060015201049
3000	P 3000	09060015201010
5000	P 5000	09060015201012

PR
with one coil

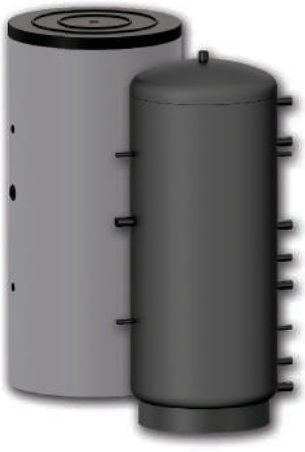
Vertical models.

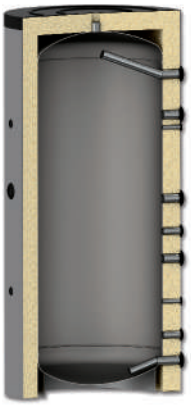
L	Model	Code
300	PR 300	09060015202003
500	PR 500	09060015202004
800	PR 800	09060015202005
1000	PR 1000	09060015202006
1500	PR 1500	09060015202007
2000	PR 2000	09060015202048
2500	PR 2500	09060015202049
3000	PR 3000	09060015202010

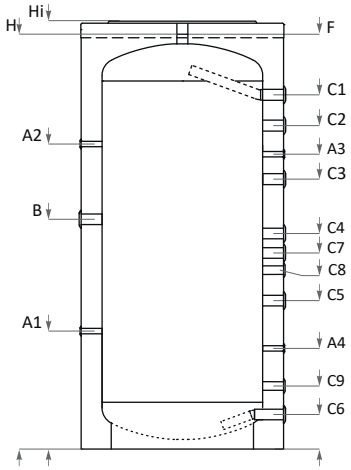
PR 2
with two coils

Vertical models.

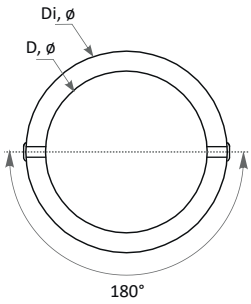
L	Model	Code
300	PR2 300	09060015203003
500	PR2 500	09060015203004
800	PR2 800	09060015203005
1000	PR2 1000	09060015203006
1500	PR2 1500	09060015203007
2000	PR2 2000	09060015203048
2500	PR2 2500	09060015203049
3000	PR2 3000	09060015203010

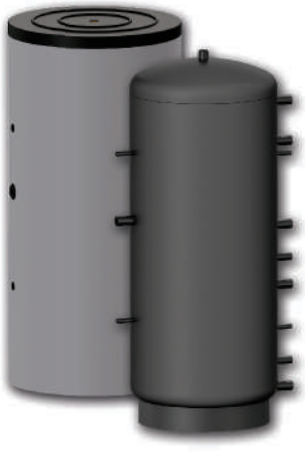


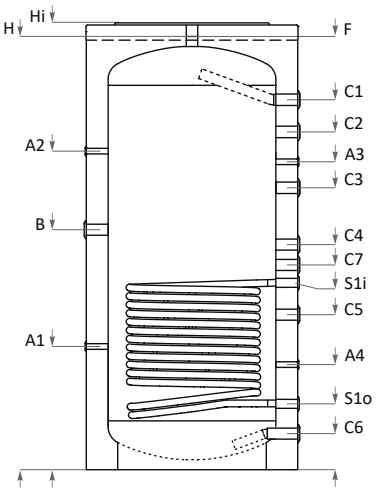




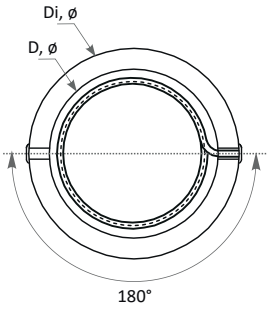
P 300 - 5000

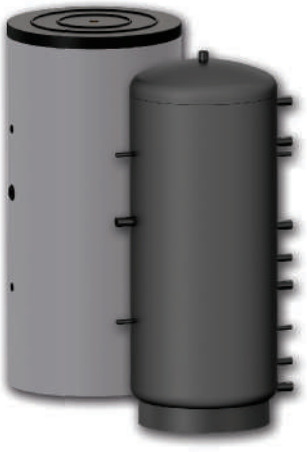


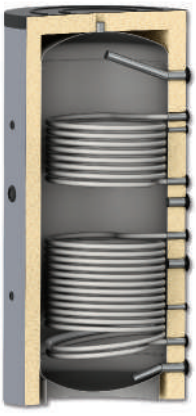


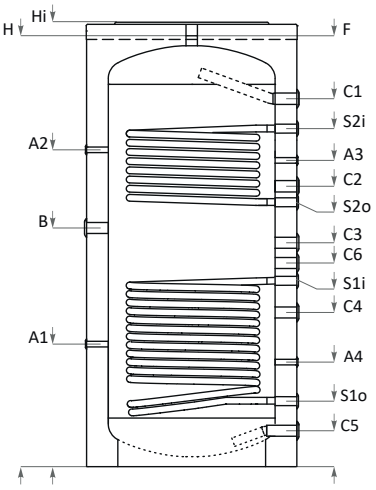


PR 300 - 3000

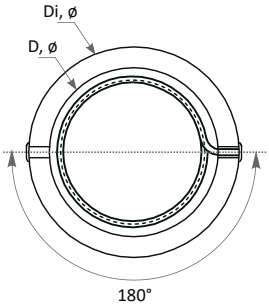








PR2 300 - 3000



P - without coil
PR - with one coil
PR 2 - with two coils

General parameters

L	H/Hi mm	D/Di mm ∅	kW
300	1410/1460	ø550/750	6-10
500	1610/1660	ø650/850	10-17
800	1860/1910	ø790/990	15-27
1000	2040/2090	ø790/990	18-33
1500	2150/2220	ø1000/1200	27-50
2000	2132/2182	ø1200/1400	36-67
2500	2482/2532	ø1250/1450	46-84
3000	2246/2296	ø1400/1600	55-100
5000	2940/2990	ø1600/1800	91-167

Heat-exchanger coils

	S1/S2 m²	S1/S2 L	S1i/S1o mm Rp1"	S2i/S2o mm Rp1"
	1.0/0.5	6.2/3.1	660/260	1080/880
	1.7/1.0	10.5/6.2	770/250	1270/990
	2.9/1.8	17.9/11.1	820/310	1390/1072
	3.0/2.0	18.5/12.3	880/310	1520/1172
	3.4/2.4	21/14.8	895/375	1635/1225
	4.0/2.4	24.6/14.8	980/380	1645/1285
	4.0/2.4	24.6/14.8	980/380	1885/1525
	4.9/2.8	29.9/17.1	1082/477	1660/1310

P - without coil

Inlets / Outlets

L	kg	kg,i	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm	C8 mm Rp1"	C9 mm Rp1"	F mm Rp1½"
300	60	9.5	410	1060	1010	420	760	1170		880	770	540	150		660	260	1410
500	90	12.3	410	1120	1120	460	790	1370		990	880	620	150		770	250	1610
800	118	16.4	570	1290	1290	465	920	1573	1390		980	670	170		820	310	1860
1000	133	18	580	1500	1450	495	1130	1742	1520		1060	730	170		880	310	2040
1500	206	23.2	875	1500	1525	520	1130	1808	1635	1305	1085	765	235	Rp½"/975	895	375	2150
2000	273	26.5	920	1645	1625	500	1170	1775		1420	1170	735	230		980	380	2132
2500	305	30	920	1645	1625	500	1170	2126			1420	735	230	Rp1½"/1170	980	380	2482
3000	402	35	910	1660	1590	610	1184	1797		1474	1184	864	344		1082	477	2246
5000	585	40	951	2001	2231	691	1505	2438		2115	1735	1155	385		1373	518	2938

PR - with one coil

Inlets / Outlets

L	kg	kg,i	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm	F mm Rp1½"
300	78	9.5	410	1060	1010	420	760	1170		880	770	540	150		1410
500	104	12.3	410	1120	1120	460	790	1370		990	880	620	150		1610
800	152	16.4	570	1290	1290	465	920	1573	1390		980	670	170		1860
1000	180	18	580	1500	1450	495	1130	1742	1520		1060	730	170		2040
1500	272	23.2	875	1500	1525	520	1130	1808	1635	1305	1085	765	235	Rp½"/975	2150
2000	330	26.5	920	1645	1625	500	1170	1775		1420	1170	735	230		2132
2500	362	30	920	1645	1625	500	1170	2126			1420	735	230	Rp1½"/1170	2482
3000	476	35	910	1660	1590	610	1184	1797		1474	1184	864	344		2246

PR2 - with two coils

Inlets / Outlets

L	kg	kg,i	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm	F mm Rp1½"
300	83	9.5	410	1060	1010	420	760	1170	880	770	540	150		1410
500	118	12.3	410	1120	1120	460	790	1370	990	880	620	150		1610
800	189	16.4	570	1290	1290	465	920	1573		980	670	170		1860
1000	203	18	580	1500	1450	495	1130	1742		1060	730	170		2040
1500	306	23.2	875	1500	1525	520	1130	1808	1305	1085	765	235	Rp½"/975	2150
2000	366	26.5	920	1645	1625	500	1170	1775	1420	1170	735	230		2132
2500	400	30	920	1645	1625	500	1170	2126		1420	735	230	Rp1½"/1170	2482
3000	520	35	910	1660	1590	610	1184	1797	1474	1184	864	344		2246

General parameters

L	Capacity
H / Hi, mm	Height without insulation / with insulation
øD /Di, mm	Diameter without insulation / with insulation
kg / kg, i	Weight without insulation / with insulation
kW	Recommended boiler size, connected to buffer tank

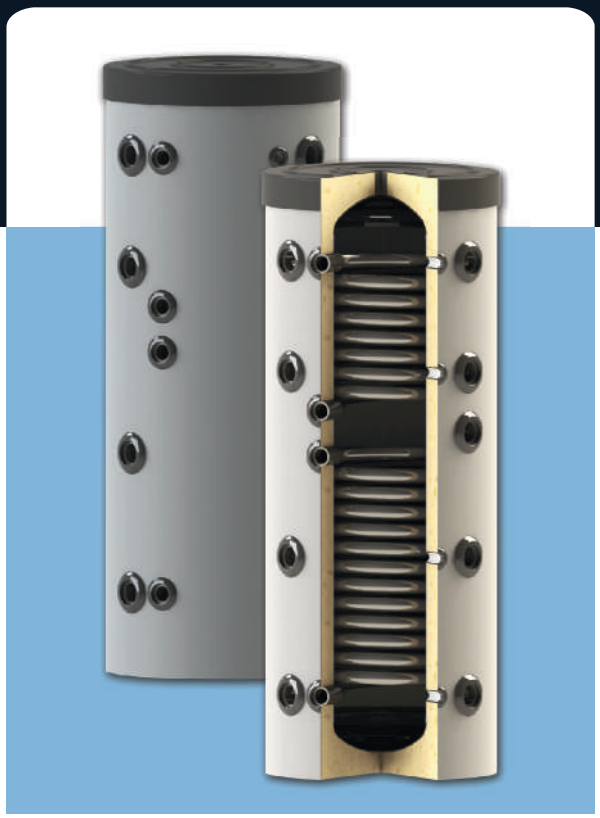
Inlets / Outlets

A, mm	Sensor sleeve
B, mm	Sleeve for Electric heating element
C, mm	Heat carrier
F, mm	Air vent sleeve

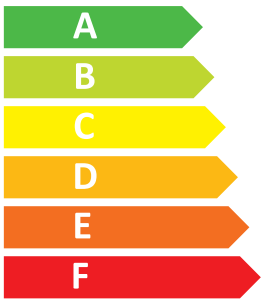
Heat-exchanger coils

S1	Lower coil
S2	Upper coil
S1/S2 m²	Heat exchange surface S1/S2
S1/S2 L	Coil capacity S1/S2
S1i/S1o mm	Inlet/Outlet Lower coil S1
S2i/S2o mm	Inlet/Outlet Upper coil S2

SUNSYSTEM
BUFFER TANK
for heating systems



Buffer tank with compact size and volume.
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 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.



Energy efficiency
Directive 2010/30/EU,
Regulation 812/2013:Class C

Insulation	High efficiency insulation (DIN 4753-8): rigid PU, thickness 50 mm. Outer lining of PVC with RAL 9006 color.
Water tank	Water tank of low-carbon steel S235JR. Operating pressure: 3 bar Maximum temperature: 95°C
Inlets / Outlets	Connections for temperature sensor. All threads are internal. Inlet/Outlet arrangement on 100 angle degrees.
One or two heat-exchanger coils (models PS1/ PS2)	Enables the tank to utilize an external sources of renewable energy. Operating pressure: 16 bar Test pressure: 25 bar Maximum temperature: 110°C

Optional equipment	Kit for electric heating (Electric heating element and Thermostat with integrated thermal protection) with an optional power (See p. 72).

PS
without coil

Vertical models.

L	Model	Code
150	PS 150	01060016201001
200	PS 200	01060016201002

PS1
with one coil

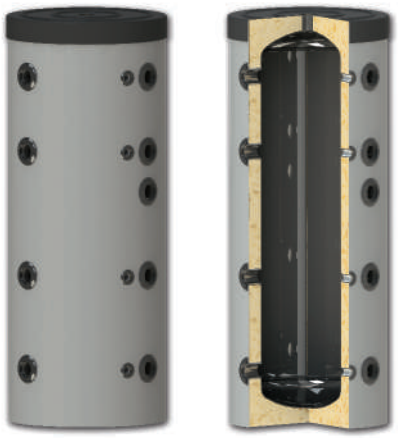
Vertical models.

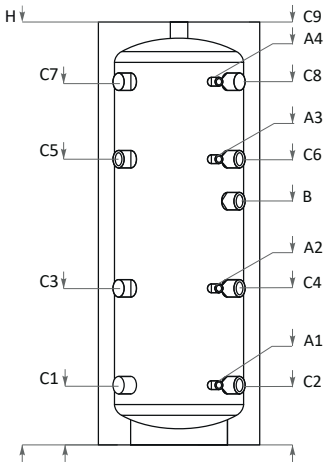
L	Model	Code
150	PS1 150	01060016202001
200	PS1 200	01060016202002

PS2
with two coils

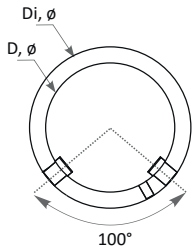
Vertical models.

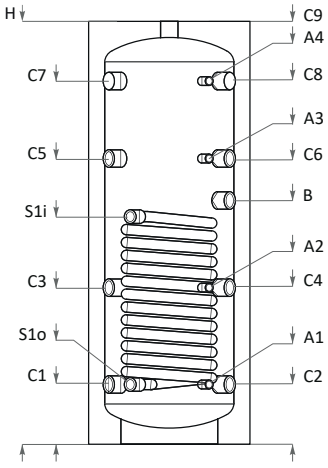
L	Model	Code
150	PS2 150	01060016203001
200	PS2 200	01060016203002



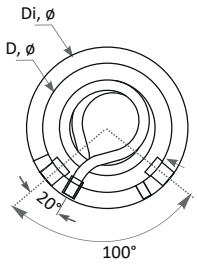


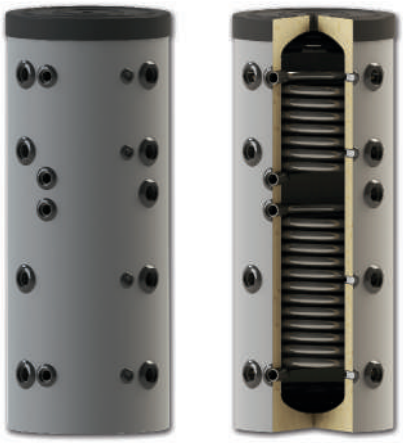
PS 150-200

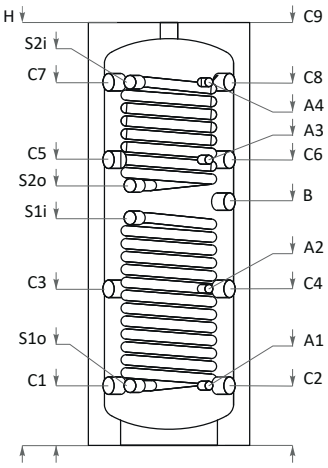




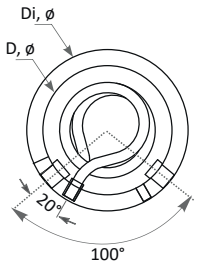
PS1 150-200







PS2 150-200



PS - without coil
PS 1 - with one coil
PS 2 - with two coils

General parameters

L	H mm	D/Di mm ∅	kW	Heat-exchanger coils S1/S2 m²	S1/S2 L	S1i/S1o mm Rp1"	S2i/S2o mm Rp1"
150	1310	ø400/500	6-10	1.1/0.66	6.8/4.1	705/185	945/ 185
200	1710	ø400/500	6-10	1.6/1.0	9.9/6.2	1125/805	1525/1045

Inlets / Outlets

PS - without coil

L	kg	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm Rp1½"	C8 mm Rp1½"	C9 mm Rp1½"
150	38	185	485	885	1125	755	185	185	485	485	885	885	1125	1125	1310
200	47	185	725	1165	1525	995	185	185	725	725	1165	1165	1525	1525	1710

Inlets / Outlets

PS1 - with one coil

L	kg	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm Rp1½"	C8 mm Rp1½"	C9 mm Rp1½"
150	56	185	485	885	1125	755	185	185	485	485	885	885	1125	1125	1310
200	74	185	725	1165	1525	995	185	185	725	725	1165	1165	1525	1525	1710

Inlets / Outlets

PS2 - with two coils

L	kg	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm Rp1½"	C8 mm Rp1½"	C9 mm Rp1½"
150	69	185	485	885	1125	755	185	185	485	485	885	885	1125	1125	1310
200	91	185	725	1165	1525	995	185	185	725	725	1165	1165	1525	1525	1710

General parameters

L	Capacity
H, mm	Height
øD /Di, mm	Diameter without insulation / with insulation
kg	Weight
kW	Recommended boiler size, connected to buffer tank

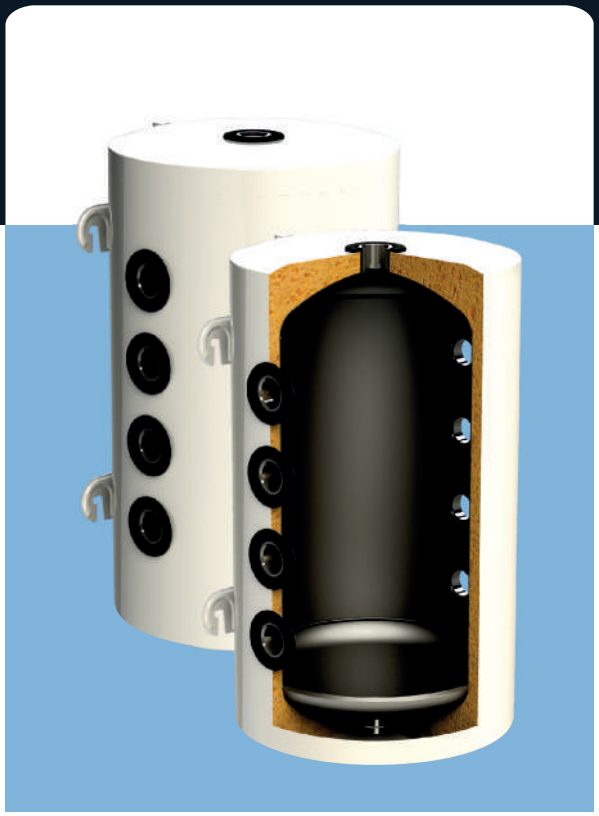
Inlets / Outlets

A, mm	Sensor sleeve
B, mm	Sleeve for Electric heating element
C, mm	Heat carrier
F, mm	Air vent sleeve

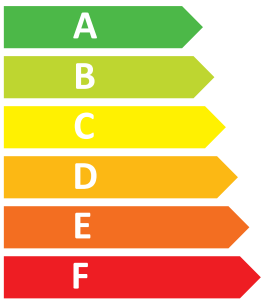
Heat-exchanger coils

S1	Lower coil
S2	Upper coil
S1/S2 m²	Heat exchange surface S1/S2
S1/S2 L	Coil capacity S1/S2
S1i/S1o mm	Inlet/Outlet Lower coil S1
S2i/S2o mm	Inlet/Outlet Upper coil S2

SUNSYSTEM
BUFFER TANK
for heat pump systems

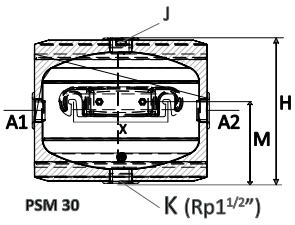


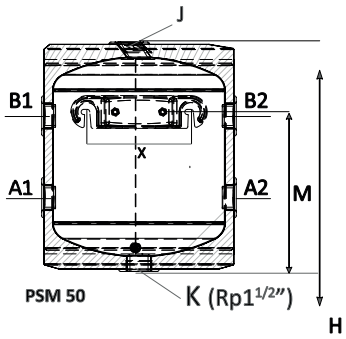
Buffer tank for heat pump systems- for the accumulation of hot or cold heat transfer medium generated by a heat pump. It can also be used in heating installations as a buffer tank. Performing the role of batteries and hydraulic equalizer, prevents frequent switching on and off of the heat pump, as well as proportional hydraulic load between the different circuits of the system.

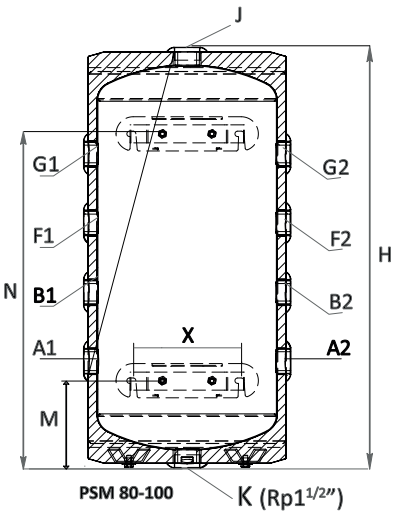


Energy efficiency
Directive 2010/30/EU,
Regulation 812/2013:Class C

Insulation	Hard PU and outer steel sheating with powder coating – RAL 9003.
Water tank	Water tank of low-carbon steel S235JR. Operating pressure: 6 bar Maximum temperature: 7 - 95°C
Inlets / Outlets	From 4 to 10 pcs. 1 ½" terminals to bind to installations. The connections are at 180 degrees, and there is also 1 pcs. Additional leads on the top and bottom.
Installation	The models of 30 and 50 liter are intended for wall mounting,and the 80 and 100 for both wall and floor. In addition, there are additional legs that are mounted on the bottom.







General parameters — Heat-exchanger coil — **PSM**

	L	D mm ∅	H/Hi mm	kg	S1 m²	S1 L	S1 kW (m^3/h)	S1 Δp, mbar	S1i/S1o mm Rp1"
30		ø440	360	13	3.3	20.4	90 (2.21)	230	1476/228
50		ø440	520	17	3.9	23.6	115 (2.70)	379	1390/260
80		ø440	755	25	4.6	28.3	130 (3.19)	569	1626/250
100		ø440	915	29	4.6	28.3	130 (3.19)	569	1626/250

Inlets / Outlets — **PSM**

A1 mm Rp½"	B 1 mm Rp½"	F 1 mm Rp½"	G 1 mm Rp½"	J mm Rp1½"	M mm Rp1½"	N mm Rp1½"	X mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm Rp1½"	C8 mm Rp1½"	C9 mm Rp1½"
180	-	-	-	360	-	210	240	485	885	885	1125	1125	1310
170	355	-	-	520	-	365	240	725	1165	1165	1525	1525	1710
190	315	440	570	755	160	560	240	485	885	885	1125	1125	1310
230	380	535	690	915	160	760	240	725	1165	1165	1525	1525	1710

General parameters

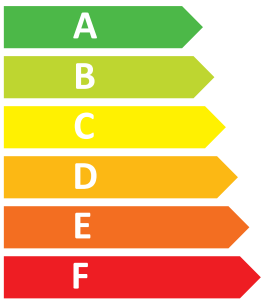
L Capacity
H, mm Height
øD /Di, mm Diameter without insulation / with insulation
kg Weight

Inlets / Outlets

A1, mm Connection
B1, mm Connection
F1, mm Heat carrier
G1, mm Connection
J, mm Connection
N, mm Size
M, mm Size
X, mm Distance between wall mounting holes

SUNSYSTEM
BUFFER TANK
for heating systems

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 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.



Energy efficiency
Directive 2010/30/EU,
Regulation 812/2013:Class B

Insulation	High efficiency insulation (DIN 4753-8): removable insulation of fleece, with thickness of 100 mm. or removable insulation of rigid PU, with thickness of 100 mm. Outer lining of PVC with RAL 9006 color.
Water tank	Water tank of low-carbon steel S235JR. Primer coated on the outside of the tank. Operating pressure: 3 bar Maximum temperature: 95°C
Inlets / Outlets	Up to 5 pcs. Rp½" sensor sleeves. Up to 13 pcs. Rp1" or Rp1½" inlet/outlet sleeves -connections to heating boilers, indirect heating of domestic hot water (DHW) and solar system. All threads are internal. Inlet/Outlet arrangement on 90 angle degrees for easy and convenient installation. Possible installation in the corner of boiler room.
One or two heat-exchanger coils (models PBM R/H* PBM R2 /H*)	Enables the tank to utilize an external sources of renewable energy. Operating pressure: 16 bar Test pressure: 25 bar Maximum temperature: 110°C
Optional equipment	Kit for electric heating (Electric heating element and Thermostat with integrated thermal protection) with an optional power (See p. 72).

PBM
without coil

Vertical models. Insulation: fleece.

L	Model	Code
300	PBM 300 FL	09060015202723
500	PBM 500 FL	09060015202724
800	PBM 800 FL	09060015202725
1000	PBM 1000 FL	09060015202726
1500	PBM 1500 FL	09060015202727
2000	PBM 2000 FL	09060015202728
3000	PBM 3000 FL	09060015202730
4000	PBM 4000 FL	09060015202731
5000	PBM 5000 FL	09060015202732

PBM H
without coil

Vertical models. Insulation: rigid PU.

L	Model	Code
800	PBM 800 H	09060015201825
1000	PBM 1000 H	09060015201826

PBM R
with one coil

Vertical models. Insulation: fleece.

L	Model	Code
300	PBM-R 300 FL	09060015202723
500	PBM-R 500 FL	09060015202724
800	PBM-R 800 FL	09060015202725
1000	PBM-R 1000 FL	09060015202726
1500	PBM-R 1500 FL	09060015202727
2000	PBM-R 2000 FL	09060015202728
3000	PBM-R 3000 FL	09060015202730
4000	PBM-R 4000 FL	09060015202731
5000	PBM-R 5000 FL	09060015202732

PBM R H
with one coil

Vertical models. Insulation: rigid PU.

L	Model	Code
800	PBM-R 800 H	09060015202825
1000	PBM-R 1000 H	09060015202826

PBM R2
with two coils

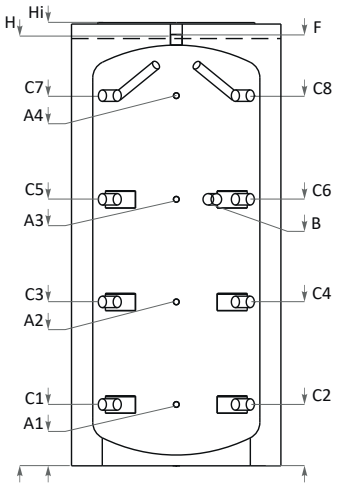
Vertical models. Insulation: fleece.

L	Model	Code
300	PBM-R2 300 FL	09060015203723
500	PBM-R2 500 FL	09060015203724
800	PBM-R2 800 FL	09060015203725
1000	PBM-R2 1000 FL	09060015203726
1500	PBM-R2 1500 FL	09060015203727
2000	PBM-R2 2000 FL	09060015203728
3000	PBM-R2 3000 FL	09060015203730
4000	PBM-R2 4000 FL	09060015203731
5000	PBM-R2 5000 FL	09060015203732

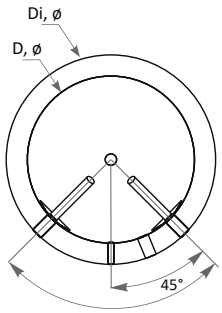
PBM R2 H
with two coils

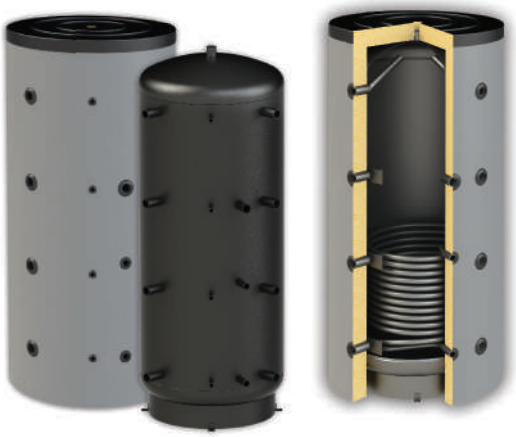
Vertical models. Insulation: rigid PU.

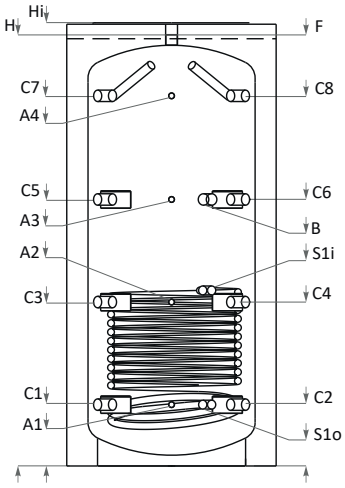
L	Model	Code
800	PBM-R2 800 H	09060015203835
1000	PBM-R2 1000 H	09060015203836



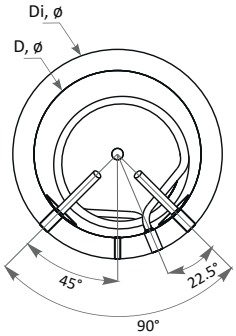
PBM /PBM H
300 - 5000

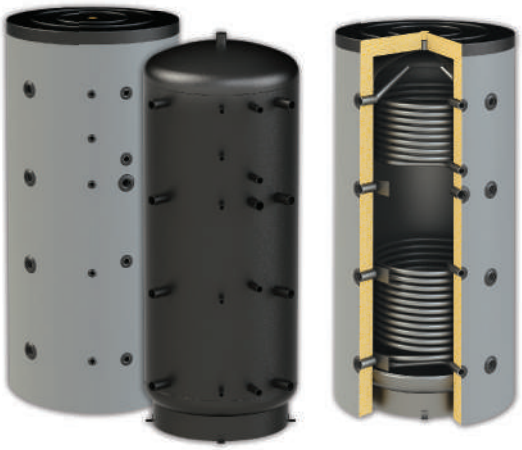


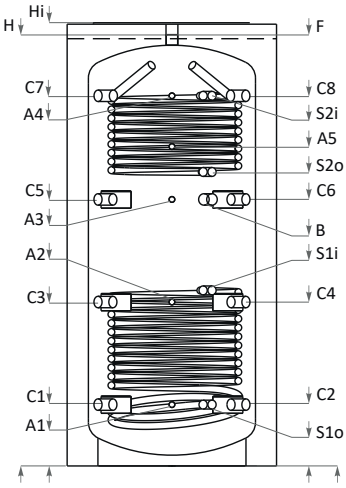




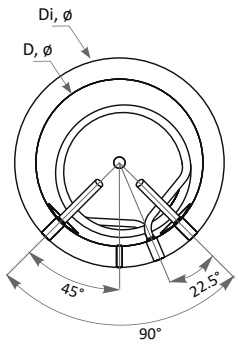
PBM R /PBM R H
300 - 5000







PBM R 2 /PBM R2 H
300 - 5000



General parameters

Heat-exchanger coil

L	H/Hi mm	D/Di mm ∅	kW	S1/S2 m²	S1/S2 L	S1i/S1o mm Rp1"	S2i/S2o mm Rp1"
300	1410/1460	ø550/750	6-10	0.9/0.4	5.6/2.6	640/240	1170/ 970
500	1700/1750	ø650/850	10-17	1.6/1.1	9.8/6.6	689/239	1451/1121
800	1838/1888	ø790/990	15-27	2.3/1.71	14/10.5	785/290	1550/1190
1000	2039/2089	ø790/990	18-33	2.48/1.71	15.2/10.5	830/290	1750/1390
1500	2140/2290	ø1000/1200	27-50	3.4/1.93	20.65/11.85	939/339	1821/1506
2000	2131/2181	ø1200/1400	36-67	4.9/2.0	30/12.4	1158/388	1768/1503
3000	2713/2763	ø1250/1450	46-84	4.6/3.05	27.95/18.7	1146/396	2178/1778
4000	2746/2796	ø1400/1600	73-133	5.2/3.5	32/21.4	1118/438	2230/1790
5000	2841/2891	ø1600/1800	82-151	6.1/4.2	37.2/25.6	1152/ 502	2304/1854

Inlets / Outlets

PBM / PBM H - without coil

L	kg	kg,i	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm Rp1½"	C8 mm Rp1½"	F mm Rp1½"
300	60	10	240	550	860	1170	860	240	240	550	550	860	860	1170	1170	1410
500	81	12	239	643	997	1451	997	239	239	643	643	997	997	1451	1451	1700
800	108	17	290	710	1090	1750	1090	290	290	710	710	1090	1090	1750	1750	2039
1000	126	18	290	775	1260	1750	1260	290	290	775	775	1260	1260	1750	1750	2039
1500	205	23	339	833	1327	1821	1260	339	339	833	833	1327	1327	1821	1821	2140
2000	254	27	388	848	1308	1768	1308	388	388	848	848	1308	1308	1768	1768	2131
3000	337	35	396	1037	1678	2319	1678	396	396	1037	1037	1678	1678	2319	2319	2713
4000	474	40	438	1064	1690	2316	1690	438	438	1064	1064	1690	1690	2316	2316	2746
5000	571	42	502	1128	1754	2380	1754	502	502	1128	1128	1754	1754	2380	2380	2841

Inlets / Outlets

PBM R / PBM R H -with one coil

L	kg	kg,i	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm Rp1½"	C8 mm Rp1½"	F mm Rp1½"
300	75	10	240	550	860	1170	860	240	240	550	550	860	860	1170	1170	1410
500	106	12	239	643	997	1451	997	239	239	643	643	997	997	1451	1451	1700
800	144	17	290	710	1090	1750	1090	290	290	710	710	1090	1090	1750	1750	2039
1000	164	18	290	775	1260	1750	1260	290	290	775	775	1260	1260	1750	1750	2039
1500	257	23	339	833	1327	1821	1260	339	339	833	833	1327	1327	1821	1821	2140
2000	329	27	388	848	1308	1768	1308	388	388	848	848	1308	1308	1768	1768	2131
3000	406	35	396	1037	1678	2319	1678	396	396	1037	1037	1678	1678	2319	2319	2713
4000	555	40	438	1064	1690	2316	1690	438	438	1064	1064	1690	1690	2316	2316	2746
5000	665	42	502	1128	1754	2380	1754	502	502	1128	1128	1754	1754	2380	2380	2841

Inlets / Outlets

PBM R 2 / PBM R 2 H - with two coils

L	kg	kg,i	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	A5 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm Rp1½"	C8 mm Rp1½"	F mm Rp1½"
300	82	10	240	550	860	1170	1037	860	240	240	550	550	860	860	1170	1170	1410
500	124	12	239	643	997	1451	1231	997	239	239	643	643	997	997	1451	1451	1700
800	171	17	290	710	1090	1750	1310	1090	290	290	710	710	1090	1090	1750	1750	2039
1000	191	18	290	775	1260	1750	1510	1260	290	290	775	775	1260	1260	1750	1750	2039
1500	287	23	339	833	1327	1821	1611	1260	339	339	833	833	1327	1327	1821	1821	2140
2000	360	27	388	848	1308	1768	1591	1308	388	388	848	848	1308	1308	1768	1768	2131
3000	453	35	396	1037	1678	2319	1893	1678	396	396	1037	1037	1678	1678	2319	2319	2713
4000	609	40	438	1064	1690	2316	1939	1690	438	438	1064	1064	1690	1690	2316	2316	2746
5000	729	42	502	1128	1754	2380	2002	1754	502	502	1128	1128	1754	1754	2380	2380	2841

General parameters

L Capacity
H / Hi, mm Height without insulation / with insulation
øD /Di, mm Diameter without insulation / with insulation
kg / kg, i Weight without insulation / with insulation
kW Recommended boiler size, connected to buffer tank

Inlets / Outlets

A, mm Sensor sleeve
B, mm Sleeve for Electric heating element
C, mm Heat carrier
F, mm Air vent sleeve

Heat-exchanger coils

S1 Lower coil
S2 Upper coil
S1/S2 m² Heat exchange surface S1/S2
S1/S2 L Coil capacity S1/S2
S1i/S1o mm Inlet/Outlet Lower coil S1
S2i/S2o mm Inlet/Outlet Upper coil S2

SUNSYSTEM
BUFFER TANK
for heating systems

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 heat energy produced thereby. Produced heat is accumulated andstored inside the buffer tank and can be used even when the boiler itself has cooled down. Buffer tank design allows heat distribution of layersthrough integrated dividing plate and distribution plate (water stratification unit).

Energy efficiency
Directive 2010/30/EU,
Regulation 812/2013:Class C

Insulation	High efficiency insulation (DIN 4753-8): removable insulation of fleece, with thickness of 100 mm. or removable insulation of rigid PU, with thickness of 100 mm. Outer lining of PVC with RAL 9006 color.
Water tank	Water tank of low-carbon steel S235JR. Primer coated on the outside of the tank. Dividing plate (Separator). Distribution plate (water stratification unit). Operating pressure: 3 bar Maximum temperature: 95°C
Inlets / Outlets	Up to 5 pcs. Rp½" sensor sleeves. Up to 13 pcs. Rp1" or Rp1½" inlet/outlet sleeves -connections to heating boilers, indirect heating of domestic hot water (DHW) and solar system. All threads are internal. Inlet/Outlet arrangement on 90 angle degrees for easy and convenient installation. Possible installation in the corner of boiler room.
One or two heat-exchanger coils (models SPBM R/H* SPBM R2 /H*)	Enables the tank to utilize an external sources of renewable energy. Operating pressure: 16 bar Test pressure: 25 bar Maximum temperature: 110°C
Optional equipment	Kit for electric heating (Electric heating element and Thermostat with integrated thermal protection) with an optional power (See p. 72).

SPBM
without coil

Vertical models. Insulation: fleece.

L	Model	Code
300	SPBM 300 FL	09060015201733
500	SPBM 500 FL	09060015201734
800	SPBM 800 FL	09060015201735
1000	SPBM 1000 FL	09060015201736
1500	SPBM 1500 FL	09060015201737
2000	SPBM 2000 FL	09060015201738

SPBM H
without coil

Vertical models. Insulation: rigid PU.

L	Model	Code
800	SPBM 800 H	09060015201825
1000	SPBM 1000 H	09060015201826

SPBM R
with one coil

Vertical models. Insulation: fleece.

L	Model	Code
300	SPBM-R 300 FL	09060015202733
500	SPBM-R 500 FL	09060015202734
800	SPBM-R 800 FL	09060015202735
1000	SPBM-R 1000 FL	09060015202736
1500	SPBM-R 1500 FL	09060015202737
2000	SPBM-R 2000 FL	09060015202738

SPBM R H
with one coil

Vertical models. Insulation: rigid PU.

L	Model	Code
800	SPBM-R 800 H	09060015202835
1000	SPBM-R 1000 H	09060015202836

SPBM R2
with two coils

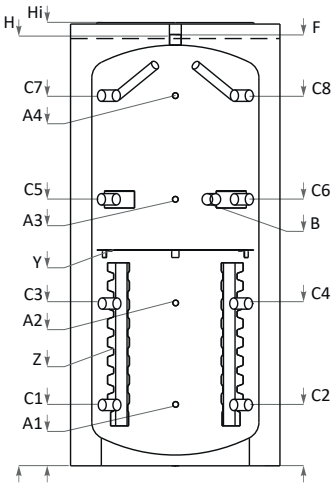
Vertical models. Insulation: fleece.

L	Model	Code
300	SPBM-R2 300 FL	09060015203733
500	SPBM-R2 500 FL	09060015203734
800	SPBM-R2 800 FL	09060015203735
1000	SPBM-R2 1000 FL	09060015203736
1500	SPBM-R2 1500 FL	09060015203737
2000	SPBM-R2 2000 FL	09060015203738

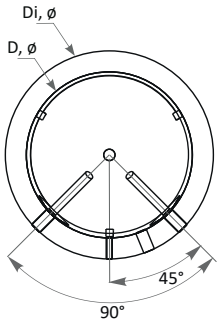
SPBM R2 H
with two coils

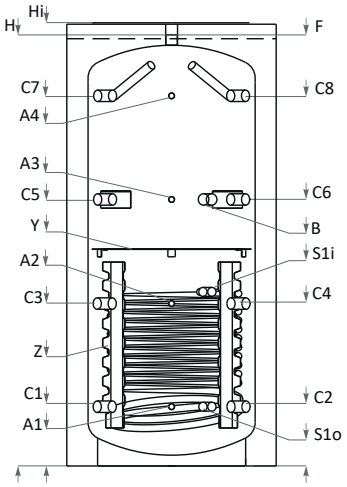
Vertical models. Insulation: rigid PU.

L	Model	Code
800	SPBM-R2 800 H	09060015203825
1000	SPBM-R2 1000 H	09060015203826

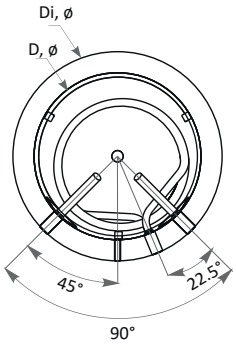


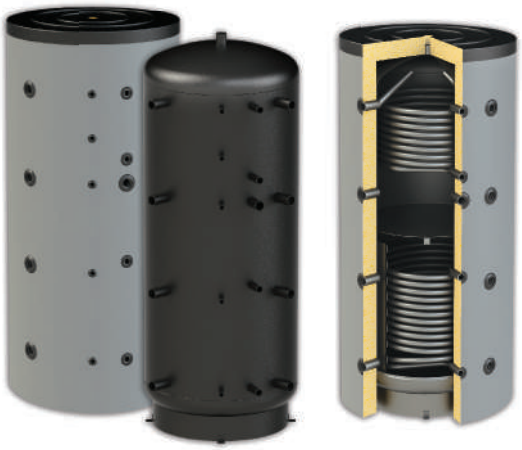
SPBM / SPBM H
300 - 2000

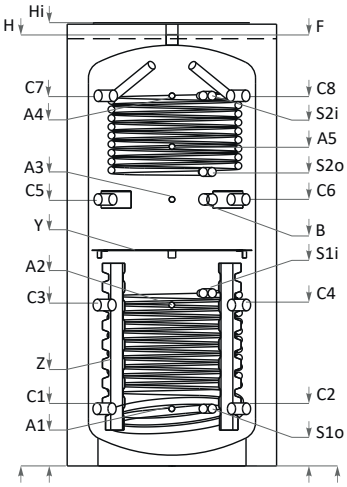




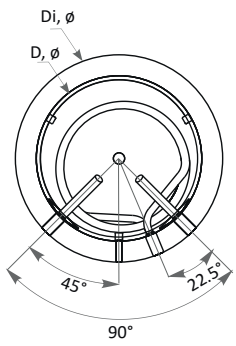
SPBM R / SPBM R H
300 - 2000







SPBM R 2 / SPBM R2 H
300 - 2000



SPBM / SPBM H - without coils
SPBMR / SPBMR H - with one coil
SPBMR 2 / SPBMR 2H - with two coils

General parameters / Heat-exchanger coil

L	H/Hi mm	D/Di mm ∅	kW	Y	Z	S1/S2 m²	S1/S2 L	S1i/S1o mm Rp1"	S2i/S2o mm Rp1"
300	1410/1460	ø550/750	6-10	✓	✓	0.9/0.4	5.6/2.6	640/240	1170/ 970
500	1700/1750	ø650/850	10-17	✓	✓	1.6/1.1	9.8/6.6	689/239	1451/1121
800	1838/1888	ø790/990	15-27	✓	✓	2.3/1.71	14/10.5	785/290	1550/1190
1000	2039/2089	ø790/990	18-33	✓	✓	2.48/1.71	15.2/10.5	830/290	1750/1390
1500	2140/2290	ø1000/1200	27-50	✓	✓	3.4/1.93	20.65/11.85	939/339	1821/1506
2000	2131/2181	ø1200/1400	36-67	✓	✓	4.9/2.0	30/12.4	1158/388	1768/1503

Inlets / Outlets

SPBM / SPBM H - without coil

L	kg	kg,i	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm Rp1½"	C8 mm Rp1½"	F mm Rp1½"
300	60	10	240	550	860	1170	860	240	240	550	550	860	860	1170	1170	1410
500	81	12	239	643	997	1451	997	239	239	643	643	997	997	1451	1451	1700
800	108	17	290	710	1090	1750	1090	290	290	710	710	1090	1090	1750	1750	2039
1000	126	18	290	775	1260	1750	1260	290	290	775	775	1260	1260	1750	1750	2039
1500	205	23	339	833	1327	1821	1260	339	339	833	833	1327	1327	1821	1821	2140
2000	254	27	388	848	1308	1768	1308	388	388	848	848	1308	1308	1768	1768	2131

Inlets / Outlets

SPBM R / SPBM R H - with one coil

L	kg	kg,i	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm Rp1½"	C8 mm Rp1½"	F mm Rp1½"
300	75	10	240	550	860	1170	860	240	240	550	550	860	860	1170	1170	1410
500	106	12	239	643	997	1451	997	239	239	643	643	997	997	1451	1451	1700
800	144	17	290	710	1090	1750	1090	290	290	710	710	1090	1090	1750	1750	2039
1000	164	18	290	775	1260	1750	1260	290	290	775	775	1260	1260	1750	1750	2039
1500	257	23	339	833	1327	1821	1260	339	339	833	833	1327	1327	1821	1821	2140
2000	329	27	388	848	1308	1768	1308	388	388	848	848	1308	1308	1768	1768	2131

Inlets / Outlets

SPBM R 2 / SPBM R 2 H - with two coils

L	kg	kg,i	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	A5 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm Rp1½"	C8 mm Rp1½"	F mm Rp1½"
300	82	10	240	550	860	1170	1037	860	240	240	550	550	860	860	1170	1170	1410
500	124	12	239	643	997	1451	1231	997	239	239	643	643	997	997	1451	1451	1700
800	171	17	290	710	1090	1750	1310	1090	290	290	710	710	1090	1090	1750	1750	2039
1000	191	18	290	775	1260	1750	1510	1260	290	290	775	775	1260	1260	1750	1750	2039
1500	287	23	339	833	1327	1821	1611	1260	339	339	833	833	1327	1327	1821	1821	2140
2000	360	27	388	848	1308	1768	1591	1308	388	388	848	848	1308	1308	1768	1768	2131

General parameters

L Capacity
H / Hi, mm Height without insulation / with insulation
øD /Di, mm Diameter without insulation / with insulation
kg / kg, I Weight without insulation / with insulation
kW Recommended boiler size, connected to buffer tank
Y Dividing plate (Separator)
Z Distribution plate (water stratification unit)

Inlets / Outlets

A, mm Sensor sleeve
B, mm Sleeve for Electric heating element
C, mm Heat carrier
F, mm Air vent sleeve

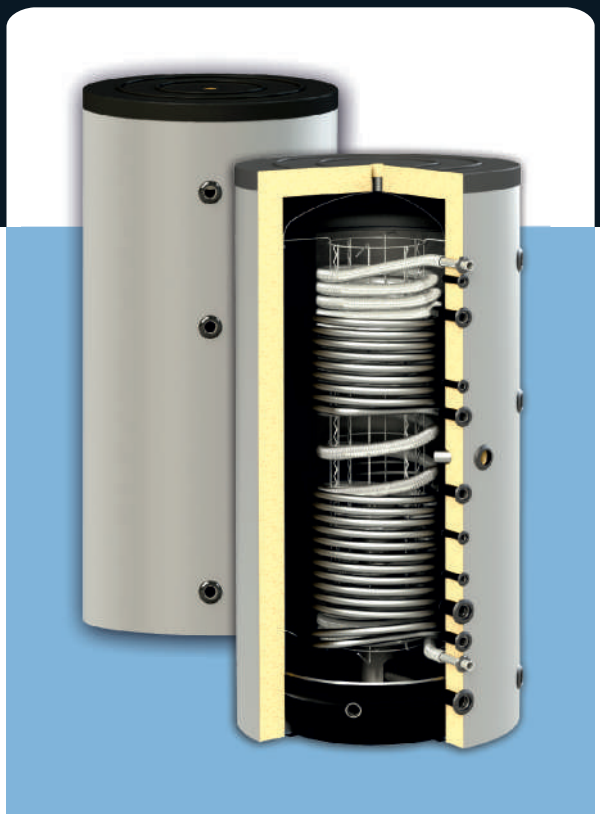
Heat-exchanger coils

S1 Lower coil
S2 Upper coil
S1/S2 m² Heat exchange surface S1/S2
S1/S2 L Coil capacity S1/S2
S1i/S1o mm Inlet/Outlet Lower coil S1
S2i/S2o mm Inlet/Outlet Upper coil S2

SUNSYSTEM

HYGIENIC COMBI TANK

for heating systems



To produce and accumulate sanitary hot water and hot water for space-heating system. Coil-in-Tank construction. Flexible stainless-steel coil (tube) for sanitary hot water and 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.

Energy efficiency
Directive 2010/30/EU,
Regulation 812/2013:Class C

Insulation	High efficiency insulation (DIN 4753-8): removable insulation of fleece, with thickness of 100 mm. Outer lining of PVC with RAL 9006 color.
Water tank - buffer tank	Water tank of low-carbon steel S235JR. Primer coated on the outside of the tank. Water stratification unit Operating pressure: 3 bar Maximum temperature: 95°C
DHW coil (tube) for sanitary domestic hot water	Made of sanitary grade stainless steel. Corrugated surface of DHW tube increases the heat transfer. Heats up instantaneously. Operating pressure: 6 bar Maximum temperature: 95°C
Inlets / Outlets	Connections for temperature sensor. Inlet/Outlet arrangement on 90 angle degrees for easy and convenient installation. Possible installation in the corner of boiler room.
One or two heat-exchanger coils (models HYG BR/ HYG BR2)	Enables the tank to utilize an external sources of renewable energy. Operating pressure: 16 bar Test pressure: 25 bar Maximum temperature: 110°C
Optional equipment	Kit for electric heating (Electric heating element and Thermostat with integrated thermal protection) with an optional power (See p. 72).

HYG B
without coil

Vertical models.

L	Model	Code
500	HYG B 500	09040010201803
800	HYG B 800	09040010201804
1000	HYG B 1000	09040010201805
1500	HYG B 1500	09040010201806

HYG BR
with one coil

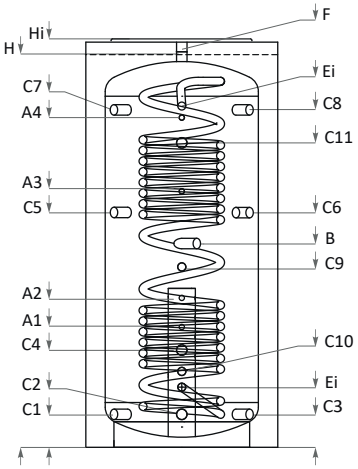
Vertical models.

L	Model	Code
500	HYG BR 500	09040010202803
800	HYG BR 800	09040010202804
1000	HYG BR 1000	09040010202805
1500	HYG BR 1500	09040010202806

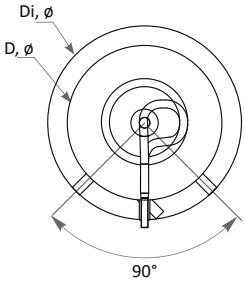
HYG BR2
with two coils

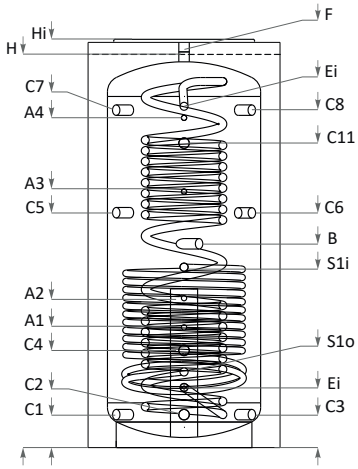
Vertical models.

L	Model	Code
500	HYG BR2 500	09040010203803
800	HYG BR2 800	09040010203804
1000	HYG BR2 1000	09040010203805
1500	HYG BR2 1500	09040010203806

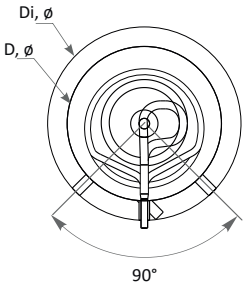


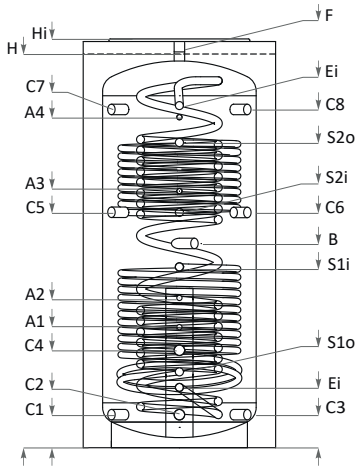
HYG B
500 - 1500





HYG BR
500 - 1500





HYG BR2
500 - 1500

HYG B - without coil
HYG BR - with one coil
HYG BR2 - with two coils

General parameters

	L	L1 / L2	H/Hi mm	D/Di mm ∅	kW
500	22/478		1700/1750	ø650/850	44
800	25/775		1840/1890	ø790/990	75
1000	25/975		2040/2090	ø790/990	75
1500	40/1460		2170/2220	ø1000/1200	114

Inlets / Outlets - DHW coil (tube)

	E m^2	E 10/45°C L/h	E 10/38°C L/h	E 38°C L	E ΔT	Ei / Eo mm Rp1"
500	5.5	1080	1350	375	6/8/12	250/1480
800	6.11	1840	2300	580	3.5/5/8	270/1590
1000	6.11	1840	2300	790	3.5/5/8	310/1760
1500	9.9	2800	3500	1150	2/3/5	345/1850

Heat-exchanger coils

	S1/S2 m^2	S1/S2 L	S1i/S1o mm Rp1"	S2i/S2o mm Rp1"
	1.7/1.0	10.5/6.2	800/280	1300/1020
	2.9/1.8	17.9/11.1	820/310	1390/1072
	3.0/2.0	18.5/12.3	880/310	1520/1172
	3.4/2.4	21.0/14.8	895/375	1635/1225

Inlets / Outlets of buffer tank

HYG B - without coil

	L	kg	kg,i	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm Rp1½"	C8 mm Rp1½"	C9 mm Rp1"	C10 mm Rp1"	C11 mm Rp1"	F mm Rp1½"
500	119	12.3		540	650	1140	1420	900	150	150	150	430	1030	1030	1450	1450	775	325	1360	1700
800	155	16.4		590	710	1160	1520	930	170	170	170	470	1050	1050	1550	1550	845	350	1410	1840
1000	164	18		620	770	1320	1700	1050	170	170	170	500	1210	1210	1740	1740	930	390	1570	2040
1500	266	23.2		800	920	1520	1790	1280	235	235	235	690	1405	1405	1820	1820	1045	445	1720	2170

Inlets / Outlets of buffer tank

HYG BR - with one coil

	L	kg	kg,i	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm Rp1½"	C8 mm Rp1½"	C9 mm Rp1"	F mm Rp1½"
500	142	12.3		540	650	1140	1420	900	150	150	150	430	1030	1030	1450	1450	1360	1700
800	188	16.4		590	710	1160	1520	930	170	170	170	470	1050	1050	1550	1550	1410	1840
1000	210	18		620	770	1320	1700	1050	170	170	170	500	1210	1210	1740	1740	1570	2040
1500	331	23.2		800	920	1520	1790	1280	235	235	235	690	1405	1405	1820	1820	1720	2170

Inlets / Outlets of buffer tank

HYG BR2 - with two coils

	L	kg	kg,i	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm Rp1½"	C8 mm Rp1½"	F mm Rp1½"
500	164	12.3		540	650	1140	1420	900	150	150	150	430	1030	1030	1450	1450	1700
800	213	16.4		590	710	1160	1520	930	170	170	170	470	1050	1050	1550	1550	1840
1000	230	18		620	770	1320	1700	1050	170	170	170	500	1210	1210	1740	1740	2040
1500	352	23.2		800	920	1520	1790	1280	235	235	235	690	1405	1405	1820	1820	2170

General parameters

L Capacity
L1 / L2 Capacity DHW coil / Buffer tank
H / Hi, mm Height without insulation / with insulation
øD /Di, mm Diameter without insulation / with insulation
kg / kg, I Weight without insulation / with insulation
kW Recommended boiler size, connected to buffer tank

Inlets / Outlets of buffer tank

A, mm Sensor sleeve
B, mm Sleeve for Electric heating element
C, mm Heat carrier
F, mm Air vent sleeve

Inlets / Outlets - DHW coil (tube)

E, m^2 Heat exchange surface
E, 10/45°C, L/h Continuous outflow 10/45°C, buffer tank is charged to 65°C
E, 10/38°C, L/h Continuous outflow 10/38 °C buffer tank is charged to 65°C.
E,38°C, L Single discharge capacity up to 38 °C of DHW (buffer is charged to 60°C)
E, ΔT ΔT -temperature difference between buffer tank and DHW at flow rate 30/40/50 liters/minute.
Ei / Eo, mm Inlet/outlet DHW coil (tube)

Heat-exchanger coils

S1 Lower coil
S2 Upper coil
S1/S2 m^2 Heat exchange surface S1/S2
S1/S2 L Coil capacity S1/S2
S1i/S1o mm Inlet/Outlet Lower coil S1
S2i/S2o mm Inlet/Outlet Upper coil S2

SUNSYSTEM
THERMODYNAMIC WATER HEATERS
FOR HEAT PUMP SYSTEMS

Highly efficient thermodynamic water heater for domestic hot water with COP 3.4.
Volume of DHW 200 and 300 liters.
Models with coil for additional heat source.
Electrical heater of 2kW for fast heating mode.
Power supply 230V, 50Hz.

Energy efficiency
Directive 2010/30/EU,
Regulation 812/2013:Class A+

Insulation	High efficiency insulation (DIN 4753-8): rigid PU, thickness 50 mm. Outer casing of PVC.
Water tank	Water tank of low-carbon steel S235JR. Complex corrosion protection realized by means of titanium enamel (DIN 4753-3) and anode protection (DIN 4753-6). Convenient inspection opening. Operating pressure: 10 bar Test pressure: 15 bar Maximum temperature: 60°C
Inlets / Outlets	All threads are internal.
One heat-exchanger coil	Enables the tank to utilize an external sources of renewable energy. Operating pressure: 16 bar Test pressure: 25 bar Maximum temperature: 110°C

Base equipment	Safety valve, 8 bar. Adjustable foot for all models.
Adition heater equipment	Electric heating element for fast heating mode (See p. 72).

Thermodynamic water heater TDA - E

without coil

General parameters

L	Model	Code	H mm	D mm ∅	kg
200	TDA - E 200	01050121201102	1610	ø675	118
300	TDA - E 300	01050121201104	1880	ø675	130

Thermodynamic water heater TDA - S

with one coil

General parameters

L	Model	Code	H mm	D mm ∅	kg
200	TDA - S 200	01050121202102	1610	ø675	140
300	TDA - S 300	01050121202104	1880	ø675	152

Heat-exchanger coil

L	S1 m^2	S1 L	S1 kW (m^3/h)	S1 NL 60°C	S1 Δp, mbar	S1i/S1o mm Rp1"
S200	1.3	7.4	53(1.3)	11	120	635/635
S300	1.3	7.4	53(1.3)	11	120	635/635

Inlets / Outlets

L	A mm	B mm	O mm	P mm Rp1¼"	R mm	Y mm Rp1"
E200	Rp1"/150	Rp1"/990	ø110x180/700	700	Rp¾"/785	30
E300	Rp1"/150	Rp1"/1260	ø110x180/720	720	Rp¾"/1000	30
S200	Rp1"/150	Rp1"/990	ø110x180/700	700	Rp¾"/785	30
S300	Rp1"/150	Rp1"/1260	ø110x180/720	720	Rp¾"/1000	30

General parameters

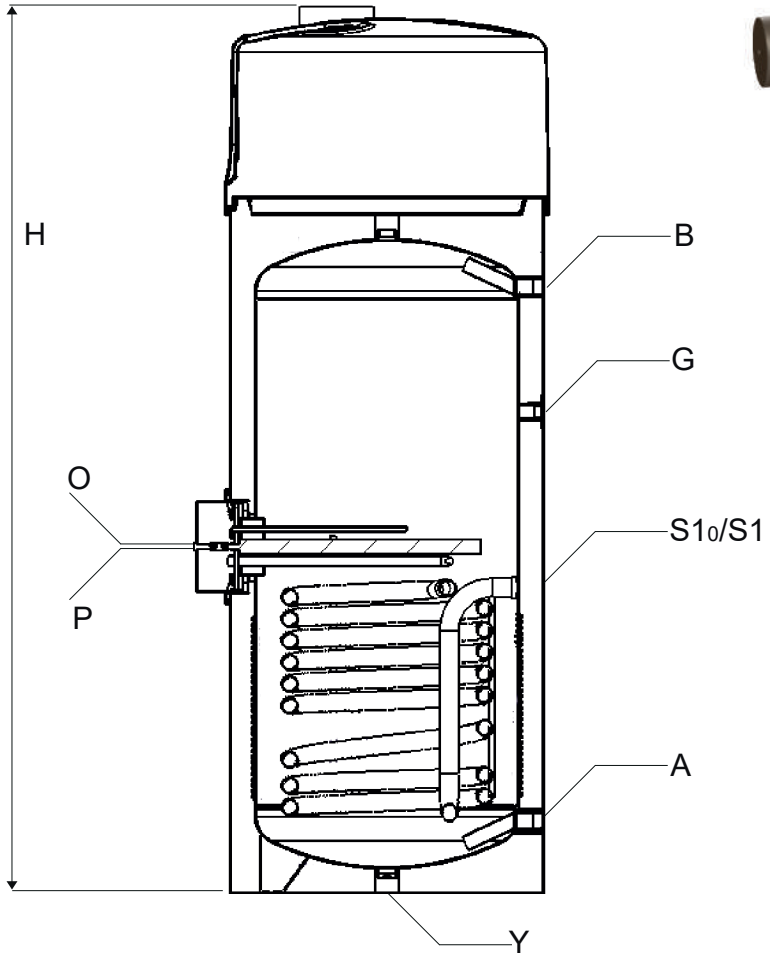
- **L** Capacity
- **H, mm** Height
- **øD, mm** Diameter
- **kg** Weight

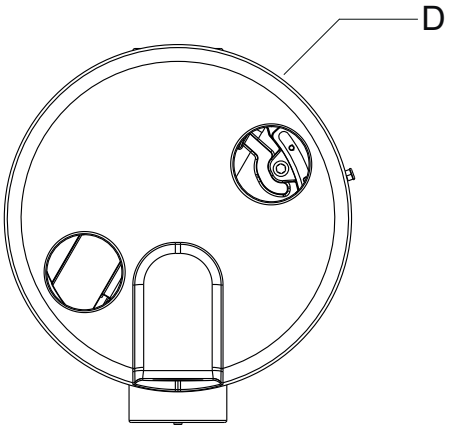
Inlets / Outlets

- **A, mm** Cold water inlet
- **B, mm** Hot water outlet
- **O, mm** Inspection opening / flange
- **P, mm** Anode
- **R, mm** Recirculation
- **Y, mm** Drain sleeve

Heat-exchanger coils

- **S1** Coil
- **S1 m^2** Heat exchange surface S1
- **S1 L** Coil capacity
- **S1 kW (m^3/h)** Prolonged power acc. to DIN 4708; 80°C/60°C/45°C
- **S1 NL 60°C** NL-power coefficient at 60°C
- **S1 Δp, mbar** Pressure drop Δp
- **S1i/S1o mm** Inlet/Outlet coil


H
B
G
O
P
S1o/S1
A
Y


D

SUNSYSTEM
BUFFER TANK
for heating systems

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 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.

Energy efficiency
Directive 2010/30/EU,
Regulation 812/2013:Class B

Insulation	High efficiency insulation (DIN 4753-8): rigid PU, thickness 75 mm. Outer casing of PVC.
Water tank	Water tank of low-carbon steel S235JR. Complex corrosion protection realized by means of titanium enamel (DIN 4753-3) and anode protection (DIN 4753-6). Convenient inspection opening. Operating pressure: 10 bar Test pressure: 15 bar Maximum temperature: 60°C
Inlets / Outlets	Connection for temperature sensor. All threads are internal.
One or two heat-exchanger coils (models SN EF, SON EF)	Enables the tank to utilize an external sources of renewable energy. Operating pressure: 16 bar Test pressure: 25 bar Maximum temperature: 110°C

Base equipment	Safety valve, 8 bar. Sensor bushing. Thermometer.
Adition heater equipment	Kit for electric heating (Electric heating element and Thermostat with integrated thermal protection) (See p. 72).

SEL EF
without coil

Vertical models.

L	Model	Code
160	SEL EF 160	09030106205741
200	SEL EF 200	09030106205742
300	SEL EF 300	09030106205744
400	SEL EF 400	09030106205745
500	SEL EF 500	09030106205746

SN EF
with one coil

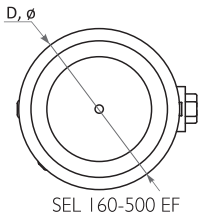
Vertical models.

L	Model	Code
160	SN EF 160	09030106202741
200	SN EF 200	09030106202742
300	SN EF 300	09030106202744
400	SN EF 400	09030106202745
500	SN EF 500	09030106202746

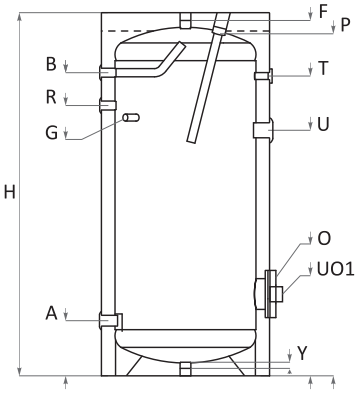
SON EF
with two coils

Vertical models.

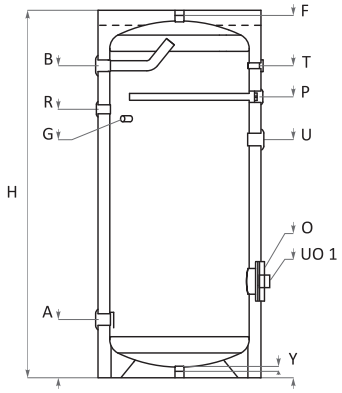
L	Model	Code
160	SON EF 160	09030106203741
200	SON EF 200	09030106203742
300	SON EF 300	09030106203744
400	SON EF 400	09030106203745
500	SON EF 500	09030106203746



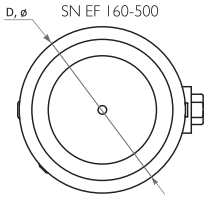
SEL 160-500 EF



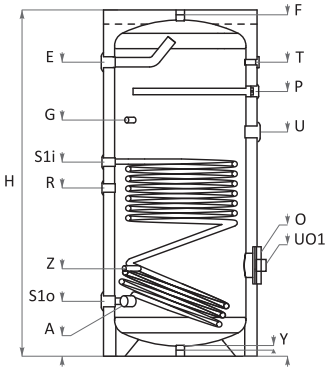
SEL 160-300



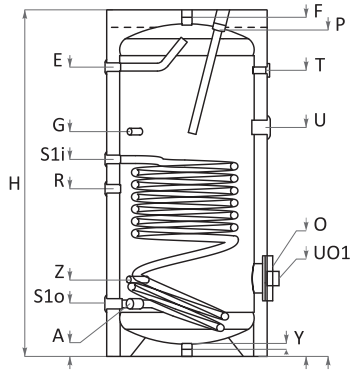
SEL 400-500



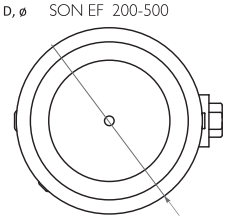
SN EF 160-500



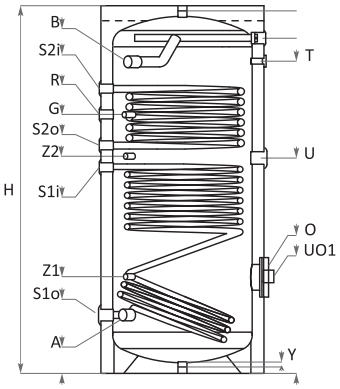
SN EF 400-500



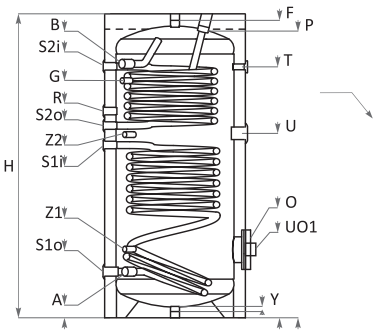
SN EF160-300



SON EF 200-500



SON EF 500



SON EF 200-300

Vertical models SEL EF

General parameters

L	H mm	D mm ∅	kg
150	1070	ø560	50
200	1340	ø560	68
300	1420	ø660	86
400	1470	ø750	123
500	1720	ø750	140
750	2000	ø950	210
1000	2050	ø1050	245
1500	2310	ø1050	342
2000	2310	ø1350	645

Vertical models SN EF

General parameters — Heat-exchanger coil

L	H mm	D mm ∅	kg	S1 m²	S1 L	S1 kW (m^3/h)	S1 NL 60°C	S1 Δp, mbar	S1i/S1o mm Rp1"
150	1070	ø560	59	0.74	4.56	25 (0.61)	2.5	65	592/202
200	1340	ø560	73	0.9	5.55	29 (0.71)	4.5	75	692/202
300	1420	ø660	104	1.2	7.40	53 (1.30)	11	120	805/215
400	1470	ø750	145	1.5	9.25	62 (1.52)	13	180	850/270
500	1720	ø750	167	1.8	11.10	72 (1.77)	18	210	960/270
750	2000	ø950	242	2.1	12.95	80 (1.97)	32	210	970/300
1000	2050	ø1050	286	2.7	16.65	105 (2.58)	42	260	1080/320
1500	2310	ø1050	392	3	18.50	131 (3.22)	64	310	1180/320
2000	2310	ø1350	712	4.1	25.28	180 (4.42)	80	420	1635/385

Vertical models SON EF

General parameters — Heat-exchanger coils

L	H mm	D mm ∅	kg	S1/S2 m²	S1/S2 L	S1/S2 kW (m^3/h)	S1/S2 NL 60°C	S1/S2 Δp, mbar	S1i/S1o mm Rp1"	S2i/S2o mm Rp1"
150	1070	ø560	65	0.74/0.4	4.56/2.47	25(0.61)/15(0.37)	2.5/1	65/48	592/202	874/674
200	1340	ø560	82	0.9/0.6	5.55/3.70	29(0.71)/18(0.44)	4.5/1.5	75/55	692/202	1112/812
300	1420	ø660	118	1.2/0.9	7.40/5.55	53(1.30)/21(0.52)	11/2	120/70	805/215	1170/894
400	1470	ø750	160	1.5/1	9.25/6.17	62(1.52)/27(0.66)	13/2.2	180/80	850/270	1210/952
500	1720	ø750	185	1.8/1.2	11.10/7.40	72(1.77)/34(0.84)	18/2.8	210/90	960/270	1350/1062
750	2000	ø950	263	2.1/1.4	12.95/8.63	80(1.97)/50(1.23)	32/10	210/150	970/300	1560/1160
1000	2050	ø1050	315	2.7/1.9	16.65/11.72	105(2.58)/62(1.52)	42/28	260/210	1080/320	1660/1220
1500	2310	ø1050	423	3/2.5	18.50/15.42	131(3.22)/74(1.82)	64/34	310/260	1180/320	1790/1350
2000	2310	ø1350	761	4.1/3	25.28/18.50	180(4.42)/110(2.70)	80/55	420/300	1635/385	1885/1420

General parameters

L Capacity
H, mm Height / Min. vert. clearance
C, mm Lenght
øD, mm Diameter
kg Weight

Heat-exchanger coil

S1 Lower coil
S1, m² Heat exchange surface S1
S1, L Coil capacity S1
S1, kW (m^3/h) Prolonged power acc. to DIN 4708; 80°C/60°C/45°C, S1
S1, NL 60°C NL- power coefficient at 60°C, S1
S1, Δp, mbar Pressure drop Δp, S1
S1i/S1o mm Inlet/Outlet Lower coil S1

Inlets / Outlets

L	A mm	B mm	G mm Rp½"	F mm Rp1"	O mm	P mm Rp1¼"	R mm	T mm Rp½"	U /Uo mm Rp1½"	Y mm Rp1"	Z mm Rp½"
150	Rp1"/202	Rp1"/895	788	1070	ø110x180/309	1070	Rp¾"/788	895	780/309	20	
200	Rp1"/202	Rp1"/1112	900	1340	ø110x180/309	1340	Rp¾"/987	1138	850/309	20	
300	Rp1"/215	Rp1"/1182	1008	1410	ø110x180/320	1410	Rp¾"/1055	1170	950/320	20	
400	Rp1¼"/270	Rp1¼"/1204	950	1480	ø110x180/450	1079	Rp1"/1005	1204	900/450	20	
500	Rp1½"/270	Rp1½"/1453	1208	1710	ø110x180/450	1340	Rp1"/1250	1453	1130/450	20	
750	Rp1½"/300	Rp1½"/1630	1435	1950	ø200x280/450	1435	Rp1"/1405	1630	1040/450	20	535
1000	Rp1½"/320	Rp1½"/1700	1487	2020	ø200x280/460	1570	Rp1"/1487	1700	1155/460	40	520
1500	2xRp1½"/320	2xRp1½"/1975	1487	2320	ø200x280/460	2x 1570/1650	Rp1"/1487	1975	2x1220/460	40	520
2000	2xRp1½"/385	2xRp1½"/1885	1685	2311	ø400x560/484	2x 1625/1705	Rp1"/1635	1835	3x1340/484	30	745

Inlets / Outlets

L	A mm	B mm	G mm Rp½"	F mm Rp1"	O mm	P mm Rp1¼"	R mm	T mm Rp½"	U /Uo mm Rp1½"	Y mm Rp1"	Z mm Rp½"
150	Rp1"/202	Rp1"/868	822	1070	ø110x180/309	1070	Rp¾"/450	868	780/309	20	422
200	Rp1"/202	Rp1"/1340	892	1340	ø110x180/309	1340	Rp¾"/500	1138	850/309	20	392
300	Rp1"/215	Rp1"/1165	1897	1410	ø110x180/320	1410	Rp¾"/663	1170	950/320	20	407
400	Rp1¼"/270	Rp1¼"/1204	950	1480	ø110x180/450	1079	Rp1"/673	1204	900/450	20	450
500	Rp1½"/270	Rp1½"/1453	1168	1710	ø110x180/450	1340	Rp1"/831	1453	1130/450	20	568
750	Rp1½"/300	Rp1½"/1630	1435	1950	ø200x280/450	1435	Rp1"/1405	1630	1040/450	20	535
1000	Rp1½"/320	Rp1½"/1700	1487	2020	ø200x280/460	1570	Rp1"/1497	1700	2x1155/460	40	520
1500	2xRp1½"/320	2xRp1½"/1975	1487	2320	ø200x280/460	2x2090	Rp1"/1497	1975	2x1210/3x460	40	520
2000	2xRp1½"/385	2xRp1½"/1885	1685	2311	ø400x560/484	2x2003	Rp1"/1635	1835	2x1340/3x484	30	745

Inlets / Outlets

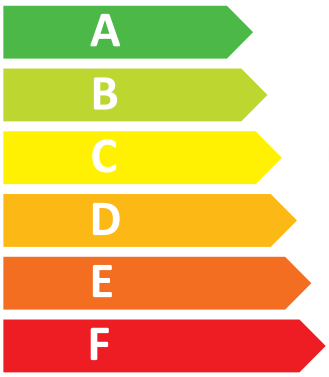
L	A mm	B mm	G mm Rp½"	F mm Rp1"	O mm	P mm Rp1¼"	R mm	T mm Rp½"	U /Uo mm Rp1½"	Y mm Rp1"	Z1/ Z2 mm Rp½"
150	Rp1"/202	Rp1"/1070	788	1070	ø110x180/309	1070	Rp¾"/788	892	752/309	30	352/631
200	Rp1"/202	Rp1"/1168	1037	1340	ø110x180/309	1340	Rp¾"/987	1138	645/309	30	302/752
300	Rp1"/215	Rp1"/1182	1104	1410	ø110x180/320	1410	Rp¾"/957	1170	852/320	30	320/852
400	Rp1¼"/270	Rp1¼"/1240	1054	1480	ø110x180/450	1337	Rp1"/1105	1152	901/450	30	450/901
500	Rp1½"/270	Rp1½"/1453	1206	1710	ø110x180/450	1568	Rp1"/1206	1453	1011/450	30	450/1011
750	Rp1½"/300	Rp1½"/1630	1435	1950	ø200x280/450	1728	Rp1"/1405	1630	1040/450	30	535/1040
1000	Rp1½"/320	Rp1½"/1700	1487	2020	ø200x280/460	1798	Rp1"/1487	1700	1140/460	30	520/1140
1500	2xRp1½"/320	2xRp1½"/1975	1487	2320	ø200x280/460	2x2090	Rp1"/1487	2089	2x1220/460	30	520/1220
2000	2xRp1½"/385	2xRp1½"/1885	1685	2311	ø400x560/484	2x2003	Rp1"/1265	1835	2x1340/2x484	30	745/1340

Inlets / Outlets

A, mm Cold water inlet
B, mm Hot water outlet
G, mm Sensor sleeve for thermostat
F, mm Air vent sleeve
O, mm Inspection opening / flange
P, mm Anode
R, mm Recirculation
T, mm Thermometer
U, mm Sleeve for Electric element on water tank body
Uo, mm Sleeve for Electric element on inspection opening flange
Y, mm Drain sleeve
Z, mm Additional sensor sleeve

SUNSYSTEM
WATER HEATER
for heat pump systems

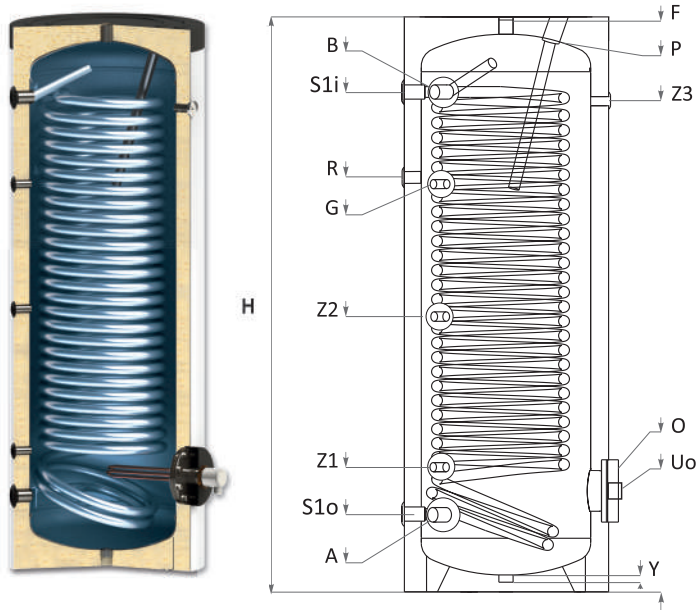
Water heater with extra-sized heat exchanger surface. Suitable for solar water heating, space-heating, and heat pump systems with large number of consumers.



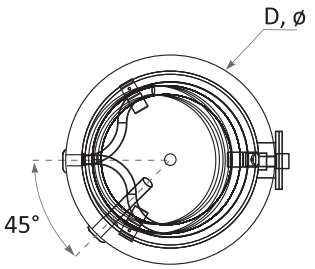
Energy efficiency
Directive 2010/30/EU,
Regulation 812/2013:Class C

Insulation	High efficiency insulation (DIN 4753-8): rigid PU, thickness 50 mm. Outer lining of PVC with RAL 9006 color.
Water tank	Water tank of low-carbon steel S235JR. Complex corrosion protection realized by means of titanium enamel (DIN 4753-3) and anode protection (DIN 4753-6). Convenient inspection opening. Operating pressure: 10 bar Test pressure: 15 bar Maximum temperature: 95°C
Inlets / Outlets	Connections for temperature sensor. All threads are internal. Inlet/Outlet arrangement on 45 angle degrees.
One or two heat-exchanger coil	The height of SWPN-L model is compensated by its smaller diameter, heat exchanger coil with increased surface. Operating pressure: 16 bar Test pressure: 25 bar Maximum temperature: 110°C

Base equipment	Thermometer. Sensor bushing. Safety valve, 8 bar. Adjustable foot. (See p. 72).
Optional equipment	Kit for electric heating (Electric heating element and Thermostat with integrated thermal protection) with an optional power (See p. 72).



SWPN-L EF 300-500



SWPN-L EF with one coil

Vertical models.

L	Model	Code
300	SWPN-L 75 300	01030107202744
400	SWPN-L 75 400	01030107202745
500	SWPN-L 75 500	01030107202746

Vertical models SWPN-L EF

General parameters / Heat-exchanger coil

L	D mm ∅	H mm	kg	S1 m²	S1 L	S1 kW (m³/h)	S1 Δp, mbar	S1i/S1o mm Rp1"
300	ø610	1695	131	3.3	20.4	90 (2.21)	230	1476/228
400	ø710	1669	175	3.9	23.6	115 (2.70)	379	1390/260
500	ø710	1895	196	4.6	28.3	130 (3.19)	569	1626/250

Inlets / Outlets

L	A mm	B mm	G mm Rp½"	F mm Rp1"	O mm	P mm Rp1¼"	R mm	Uo mm Rp1½"	Y mm Rp1"	Z1/ Z2 / Z3 mm Rp½"
300	Rp1"/228	Rp1"/1476	1220	1695	ø110x180/298	1695	Rp¾"/1224	298	30	368/813/1204
400	Rp1¼"/260	Rp1¼"/1420	1176	1669	ø110x180/345	1524	Rp1"/1180	345	30	420/695/1100
500	Rp1½"/250	Rp1½"/1643	1298	1895	ø110x180/345	1750	Rp1"/1392	345	30	433/966/1372

General parameters

L Capacity
H, mm Height
øD, mm Diameter
kg Weight

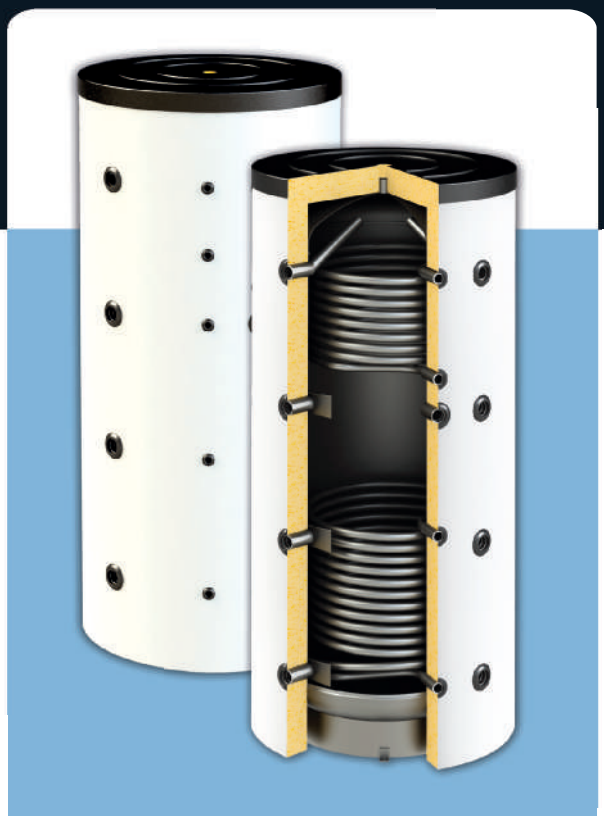
Inlets / Outlets

A, mm Cold water inlet
B, mm Hot water outlet
G, mm Sensor sleeve for thermostat
F, mm Air vent sleeve
O, mm Inspection opening / flange
P, mm Anode
R, mm Recirculation
Uo, mm Sleeve for Electric element on inspection opening flange
Y, mm Drain sleeve
Z, mm Additional sensor sleeve

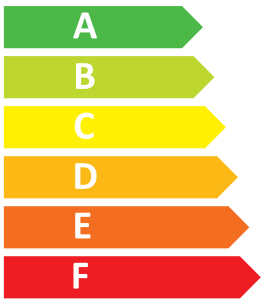
Heat-exchanger coils

S1 Lower coil
S2 Upper coil
S1/S2 m² Heat exchange surface S1/S2
S1/S2 L Coil capacity S1/S2
S1/S2 kW (m³/h) Prolonged power acc. to DIN 4708; 80°C/60°C/45°C, S1/S2
S1/S2 NL 60°C NL- power coefficient at 60°C, S1/S2
S1/S2 Δp, mbar Pressure drop Δp, S1/S2
S1i/S1o mm Inlet/Outlet Lower coil S1
S2i/S2o mm Inlet/Outlet Upper coil S2

SUNSYSTEM
BUFFER TANK
for heating systems



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 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.



Energy efficiency
Directive 2010/30/EU,
Regulation 812/2013:Class B

Insulation	High efficiency insulation (DIN 4753-8): removable insulation of fleece, with thickness of 100 mm. or removable insulation of rigid PU, with thickness of 100 mm. Outer lining of PVC with RAL 9006 color.
Water tank	Water tank of low-carbon steel S235JR. Primer coated on the outside of the tank. Operating pressure: 3 bar Maximum temperature: 95°C
Inlets / Outlets	Up to 5 pcs. Rp½" sensor sleeves. Up to 13 pcs. Rp1" or Rp1½" inlet/outlet sleeves -connections to heating boilers, indirect heating of domestic hot water (DHW) and solar system. All threads are internal. Inlet/Outlet arrangement on 90 angle degrees for easy and convenient installation. Possible installation in the corner of boiler room.
One or two heat-exchanger coils (models PBM R-EF PBMR2-EF)	Enables the tank to utilize an external sources of renewable energy. Operating pressure: 16 bar Test pressure: 25 bar Maximum temperature: 110°C
Optional equipment	Kit for electric heating (Electric heating element and Thermostat with integrated thermal protection) with an optional power (See p. 72).

PBM EF
without coil

Vertical models. Insulation: fleece.

L	Model	Code
800	PBM EF 800 FL	09060015201745
1000	PBM EF 1000 FL	09060015201746
1500	PBM EF 1500 FL	09060015201747

PBM R EF
with one coil

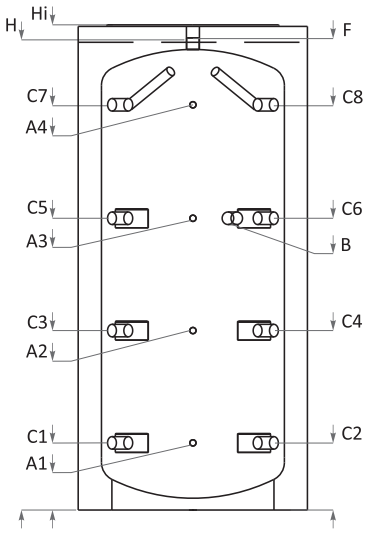
Vertical models. Insulation: fleece.

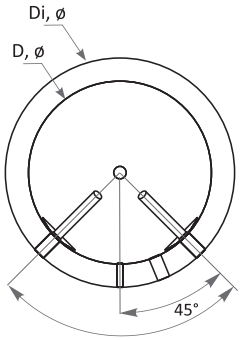
L	Model	Code
800	PBM-R EF 800 FL	09060015202745
1000	PBM-R EF 1000 FL	09060015202746
1500	PBM-R EF 1500 FL	09060015202747

PBM R2 EF
with two coils

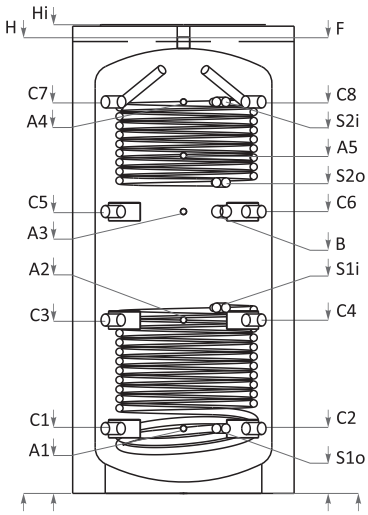
Vertical models. Insulation: fleece.

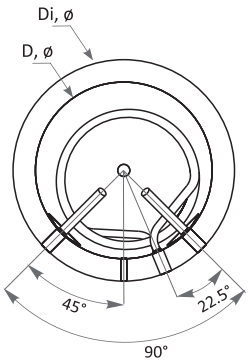
L	Model	Code
800	PBM-R2 EF 800 FL	09060015203745
1000	PBM-R2 EF 1000 FL	09060015203746
1500	PBM-R2 EF 1500 FL	09060015203747



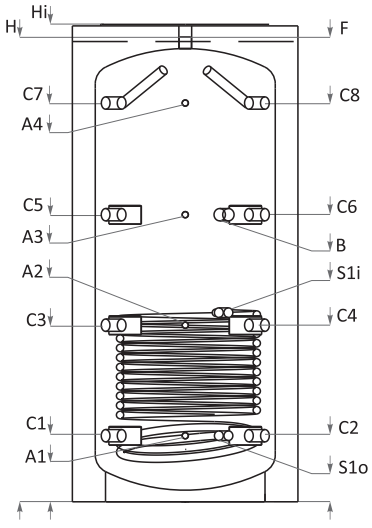


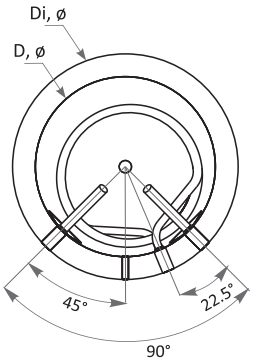
PBM EF 300-500





PBM R EF 300-500





PBM R2 EF 300-500

PBM - EF - without coil
PBMR - EF - with one coil
PBMR 2 - EF - with two coils

General parameters

L	H/Hi mm	D/Di mm ∅	kW
800	1838/1888	ø790/990	15-27
1000	2039/2089	ø790/990	18-33
1500	2140/2290	ø1000/1200	27-50

Heat-exchanger coil

S1/S2 m²	S1/S2 L	S1i/S1o mm Rp1"	S2i/S2o mm Rp1"
2.3/1.71	14/10.5	785/290	1550/1190
2.48/1.71	15.2/10.5	830/290	1750/1390
3.4/1.93	20.65/11.85	939/339	1821/1506

Inlets / Outlets

PBM EF- without coil

L	kg	kg,i	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm Rp1½"	C8 mm Rp1½"	F mm Rp1½"
800	108	17	290	710	1090	1750	1090	290	290	710	710	1090	1090	1750	1750	2039
1000	126	18	290	775	1260	1750	1260	290	290	775	775	1260	1260	1750	1750	2039
1500	205	23	339	833	1327	1821	1260	339	339	833	833	1327	1327	1821	1821	2140

Inlets / Outlets

PBM R EF- with one coil

L	kg	kg,i	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm Rp1½"	C8 mm Rp1½"	F mm Rp1½"
800	144	17	290	710	1090	1750	1090	290	290	710	710	1090	1090	1750	1750	2039
1000	164	18	290	775	1260	1750	1260	290	290	775	775	1260	1260	1750	1750	2039
1500	257	23	339	833	1327	1821	1260	339	339	833	833	1327	1327	1821	1821	2140

Inlets / Outlets

PBM R2 EF- with two coils

L	kg	kg,i	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	A5 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm Rp1½"	C8 mm Rp1½"	F mm Rp1½"
800	171	17	290	710	1090	1750	1310	1090	290	290	710	710	1090	1090	1750	1750	2039
1000	191	18	290	775	1260	1750	1510	1260	290	290	775	775	1260	1260	1750	1750	2039
1500	287	23	339	833	1327	1821	1611	1260	339	339	833	833	1327	1327	1821	1821	2140

General parameters

L	Capacity
H / Hi, mm	Height without insulation / with insulation
øD /Di, mm	Diameter without insulation / with insulation
kg / kg, i	Weight without insulation / with insulation
kW	Recommended boiler size, connected to buffer tank

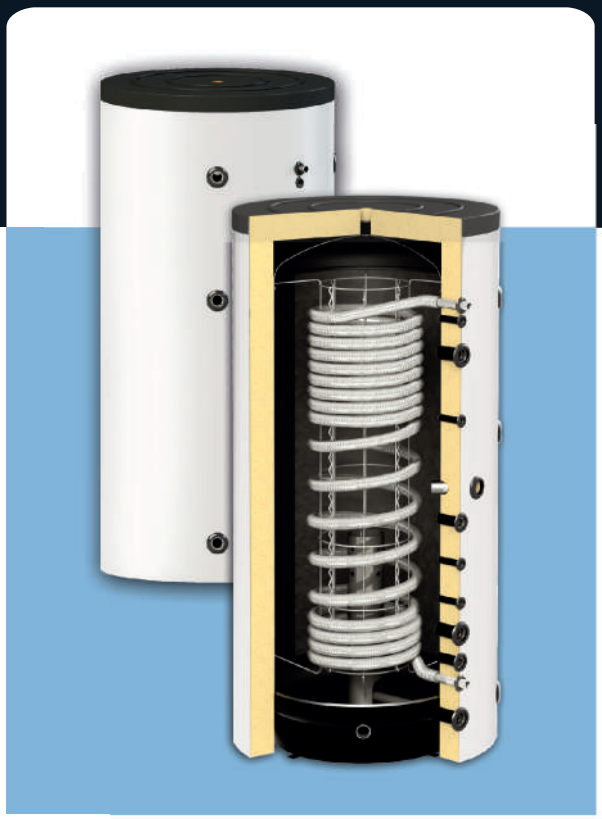
Inlets / Outlets

A, mm	Sensor sleeve
B, mm	Sleeve for Electric heating element
C, mm	Heat carrier
F, mm	Air vent sleeve

Heat-exchanger coils

S1	Lower coil
S2	Upper coil
S1/S2 m²	Heat exchange surface S1/S2
S1/S2 L	Coil capacity S1/S2
S1i/S1o mm	Inlet/Outlet Lower coil S1
S2i/S2o mm	Inlet/Outlet Upper coil S2

SUNSYSTEM
HYGIENIC COMBI TANK
for heating systems



To produce and accumulate sanitary hot water and hot water for space-heating system. Coil-in-Tank construction. Flexible stainless-steel coil (tube) for sanitary hot water and 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.

Energy efficiency
Directive 2010/30/EU,
Regulation 812/2013:Class B

Insulation	High efficiency insulation (DIN 4753-8): removable insulation of fleece, with thickness of 100 mm. Outer lining of PVC with RAL 9006 color.
Water tank - buffer tank	Water tank of low-carbon steel S235JR. Primer coated on the outside of the tank. Water stratification unit Operating pressure: 3 bar Maximum temperature: 95°C
DHW coil (tube) for sanitary domestic hot water	Made of sanitary grade stainless steel. Corrugated surface of DHW tube increases the heat transfer. Heats up instantaneously. Operating pressure: 6 bar Maximum temperature: 95°C
Inlets / Outlets	Connections for temperature sensor. Inlet/Outlet arrangement on 90 angle degrees for easy and convenient installation. Possible installation in the corner of boiler room.
One or two heat-exchanger coils (models HYG BR EF, HYG BR2 EF)	Enables the tank to utilize an external sources of renewable energy. Operating pressure: 16 bar Test pressure: 25 bar Maximum temperature: 110°C
Optional equipment	Kit for electric heating (Electric heating element and Thermostat with integrated thermal protection) with an optional power (See p. 72).

HYG B EF
without coil

Vertical models.

L	Model	Code
800	HYG B EF 800	09040010201924
1000	HYG B EF 1000	09040010201925
1500	HYG B EF 1500	09040010201926

HYG BR EF
with one coil

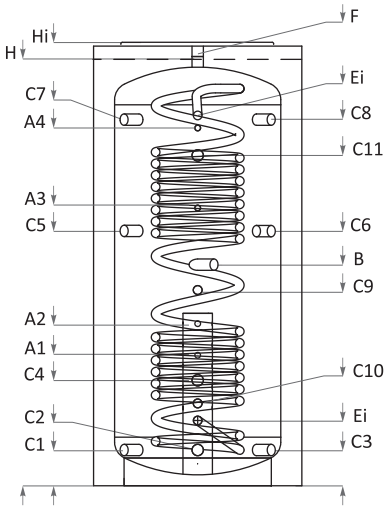
Vertical models.

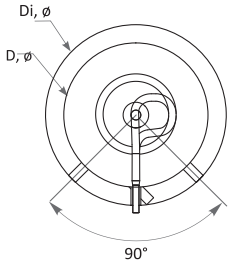
L	Model	Code
800	HYG BR EF 800	09040010202924
1000	HYG BR EF 1000	09040010202925
1500	HYG BR EF 1500	09040010202926

HYG BR2 EF
with two coils

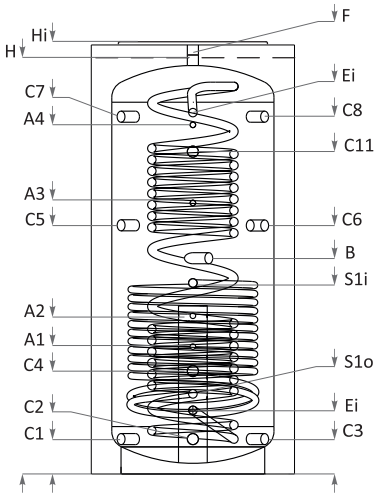
Vertical models.

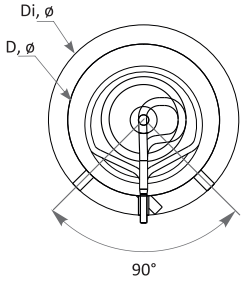
L	Model	Code
800	HYG BR2 EF 800	09040010203924
1000	HYG BR2 EF1000	09040010203925
1500	HYG BR2 EF 1500	09040010203926



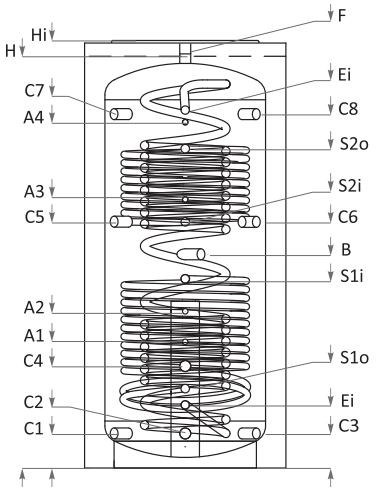


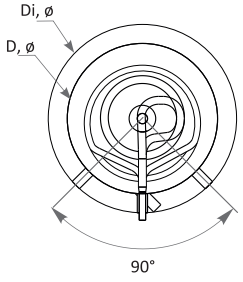
HYG B EF
300-500





HYG BR EF
300-500

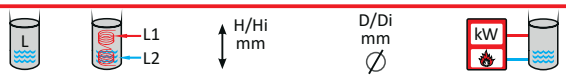




HYG BR2 EF
300-500

HYG B EF - without coil
HYG BR EF - with one coil
HYG BR2 EF - with two coils

General parameters



800	25/775	1840/1890	ø790/990	75
1000	25/975	2040/2090	ø790/990	75
1500	40/1460	2170/2220	ø1000/1200	114

Inlets / Outlets - DHW coil (tube)

	E m^2	E 10/45°C L/h	E 10/38°C L/h	E 38°C L	E ΔT	Ei / Eo mm Rp1"
800	6.11	1840	2300	580	3.5/5/8	270/1590
1000	6.11	1840	2300	790	3.5/5/8	310/1760
1500	9.9	2800	3500	1150	2/3/5	345/1850

Heat-exchanger coils

	S1/S2 m^2	S1/S2 L	S1i/S1o mm Rp1"	S2i/S2o mm Rp1"
800	2.9/1.8	17.9/11.1	820/310	1390/1072
1000	3.0/2.0	18.5/12.3	880/310	1520/1172
1500	3.4/2.4	21.0/14.8	895/375	1635/1225

Inlets / Outlets of buffer tank

HYG B EF - without coil

	kg	kg,i	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm Rp1½"	C8 mm Rp1½"	C9 mm Rp1"	C10 mm Rp1"	C11 mm Rp1"	F mm Rp1½"
800	155	16.4	590	710	1160	1520	930	170	170	170	470	1050	1050	1550	1550	845	350	1410	1840
1000	164	18	620	770	1320	1700	1050	170	170	170	500	1210	1210	1740	1740	930	390	1570	2040
1500	266	23.2	800	920	1520	1790	1280	235	235	235	690	1405	1405	1820	1820	1045	445	1720	2170

Inlets / Outlets of buffer tank

HYG BR EF - with one coil

	kg	kg,i	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm Rp1½"	C8 mm Rp1½"	C9 mm Rp1"	F mm Rp1½"
800	188	16.4	590	710	1160	1520	930	170	170	170	470	1050	1050	1550	1550	1410	1840
1000	210	18	620	770	1320	1700	1050	170	170	170	500	1210	1210	1740	1740	1570	2040
1500	331	23.2	800	920	1520	1790	1280	235	235	235	690	1405	1405	1820	1820	1720	2170

Inlets / Outlets of buffer tank

HYG BR2 EF - with two coils

	kg	kg,i	A1 mm Rp½"	A2 mm Rp½"	A3 mm Rp½"	A4 mm Rp½"	B mm Rp1½"	C1 mm Rp1½"	C2 mm Rp1½"	C3 mm Rp1½"	C4 mm Rp1½"	C5 mm Rp1½"	C6 mm Rp1½"	C7 mm Rp1½"	C8 mm Rp1½"	F mm Rp1½"
800	213	16.4	590	710	1160	1520	930	170	170	170	470	1050	1050	1550	1550	1840
1000	230	18	620	770	1320	1700	1050	170	170	170	500	1210	1210	1740	1740	2040
1500	352	23.2	800	920	1520	1790	1280	235	235	235	690	1405	1405	1820	1820	2170

General parameters

L Capacity
L1 / L2 Capacity DHW coil / Buffer tank
H / Hi, mm Height without insulation / with insulation
øD /Di, mm Diameter without insulation / with insulation
kg / kg, I Weight without insulation / with insulation
kW Recommended boiler size, connected to buffer tank

Inlets / Outlets of buffer tank

A, mm Sensor sleeve
B, mm Sleeve for Electric heating element
C, mm Heat carrier
F, mm Air vent sleeve

Inlets / Outlets - DHW coil (tube)

E, m^2 Heat exchange surface
E, 10/45°C, L/h Continuous outflow 10/45°C, buffer tank is charged to 65°C
E, 10/38°C, L/h Continuous outflow 10/38 °C buffer tank is charged to 65°C.
E,38°C, L Single discharge capacity up to 38 °C of DHW (buffer is charged to 60°C)
E, ΔT ΔT -temperature difference between buffer tank and DHW at flow rate 30/40/50 liters/minute.
Ei / Eo, mm Inlet/outlet DHW coil (tube)

Heat-exchanger coils

S1 Lower coil
S2 Upper coil
S1/S2 m^2 Heat exchange surface S1/S2
S1/S2 L Coil capacity S1/S2
S1i/S1o mm Inlet/Outlet Lower coil S1
S2i/S2o mm Inlet/Outlet Upper coil S2

BASE EQUIPMENT

Item Name	Code
SK SET V ENAMELED	




Set Thermometer. Sensor bushing 2 pcs. Adjustable foot - 3 pcs. Safety valve 8 bar, ¾".

SK SET VIII ENAMELED	00170006000008



Set Thermometer. Sensor bushing 2 pcs. Safety valve 8 bar, ¾".

SK SET X ENAMELED	00170006000010



Set Thermometer. Sensor bushing 2 pcs. Safety valve 8 bar, 1".

SK SET V-A ENAMELED	00170006000025




Set Thermometer. Sensor bushing 2 pcs. Adjustable foot - 3 pcs. Safety valve 10 bar, ¾".

OPTIONAL EQUIPMENT

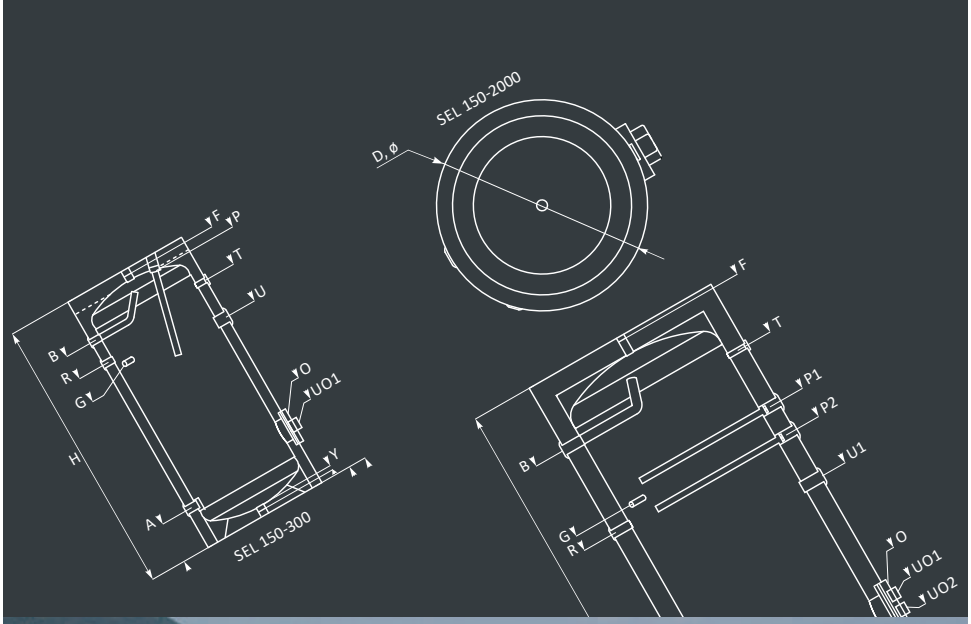
Item Name	Code
3 kW - SL 3 SET Cu	00171406000003
4.5 kW - SL 4.5 SET Cu	00171406000004
6 kW - SL 6 SET Cu	00171406000005
7.5 kW- SL 7.5 SET Cu	00171406000006
2x7.5 kW - SL 2x7.5 SET Cu	00171406000007
3x7.5 kW - SL 3x7.5 SET Cu	00171406000008
4x7.5 kW - SL 4x7.5 SET Cu	00171406000009


Electric heating element. Thermostat.

HEATER WITH THERMOSTAT 3KW	325900000000106
HEATER WITH THERMOSTAT 4KW	325900000000107
HEATER WITH THERMOSTAT 6KW	325900000000108

Electric heating element with built-up Thermostat.

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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