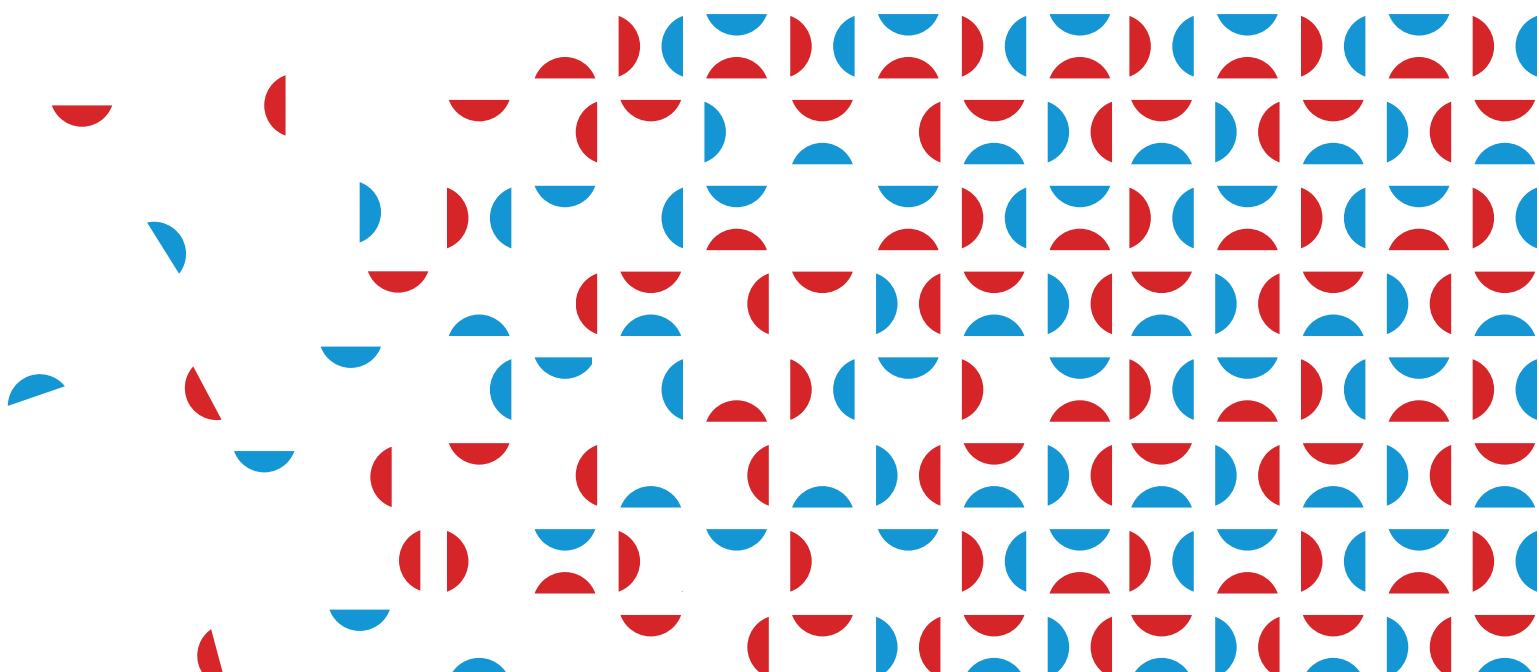


BUFFER TANKS

HEATING WATER

PU/PUW /PUW-I



PU / PUW 1 / PUW 2

Puffer thermoaccumulators

PU / PUW 1 / PUW 2 buffer tanks are inertial tanks for heating systems intended for the storage of hot technical water (not for sanitary use), necessary in all systems powered by a discontinuous energy source (e.g. solar panels, wood boiler, thermo-fireplace, etc.), or when it is necessary to increase the volume of water contained in the system (e.g. systems with heat pumps, cogenerators, biomass boilers, etc.). Puffer storage heaters are available in different versions, designed for use with one or more energy sources:

PU Simple accumulation

PUW 1 Storage tank equipped with an internal smooth-tube heat exchanger for the insertion of a second energy source (e.g. solar).

PUW 2 Storage tank equipped with two internal smooth-tube heat exchangers for the insertion of two additional energy sources (e.g. solar and thermo chimney).

Material

All tanks are made of carbon steel sheet S 235 JR, painted on the outside.

Insulation

Capacity (L)	Type
from 300 to 1000	High-density rigid polyurethane foam
from 1500 to 5000	Polyester fibre
by 6000	Flexible polyurethane

Limits of use

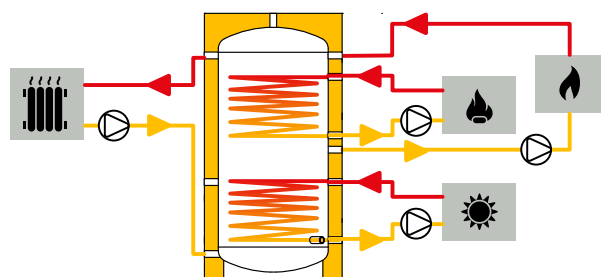
Mod.	Accumulation Side		Serpentine circuit S1		Serpentine circuit S2	
	Max. temperature	Max. pressure	Max. temperature	Max. pressure	Max. temperature	Max. pressure
PU	95°C	6 bar	-	-	-	-
PUW 1	95°C	6 bar	99°C	9 bar	-	-
PUW 2	95°C	6 bar	99°C	9 bar	99°C	9 bar



Standard accessories: see page 208



Special executions: see page 210

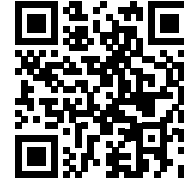


PU / PUW 1 / PUW 2

Product Codes

PU series

Capacity L	Code	Price	Class energy	With vertical packaging	
				Dimensions cm	Weight kg
300	317010119X	873,00 €	B	64x64x180	55
500	317010120X	1.129,00 €	C	77x77x184	77
750	317010216X	1.385,00 €	C	95x95x178	109
1000	317010002	1.686,00 €	C	129x129x216	125
1500	317010003	2.347,00 €	C	125x125x229	194
2000	317010004	2.897,00 €	C	136x136x261	263
2500	317010101X	3.368,00 €		147x147x234	296
3000	317010102X	3.784,00 €		147x147x284	346
4000	317010103X	5.463,00 €		163x163x293	492
5000	317010104X	6.634,00 €		183x183x299	582
6000	317010129X	8.975,00 €		282x203x217.5	684
8000	317010130X	10.536,00 €		352x203x217.5*	823
10000	317010131X	11.121,00 €		427x203x217.5*	973

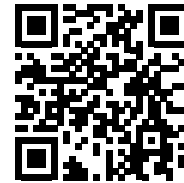


PRICES
PU

*shipping in containers requires open top containers

PUW Series 1

Capacity L	Code	Price	Class energy	With vertical packaging	
				Dimensions cm	Weight kg
300	319010129X	1.189,00 €	B	64x64x180	65
500	319010130X	1.490,00 €	C	77x77x184	98
750	319010202X	1.952,00 €	C	95x95x178	137
1000	319010003	2.299,00 €	C	129x129x216	153
1500	319010004	3.008,00 €	C	125x125x229	237
2000	319010005	3.679,00 €	C	136x136x261	315
2500	319010135X	4.106,00 €		147x147x234	352
3000	319010136X	4.806,00 €		147x147x284	413
4000	319010137X	6.361,00 €		163x163x293	571
5000	319010138X	7.415,00 €		183x183x299	672



PRICES
PUW1

PUW Series 2

Capacity L	Code	Price	Class energy	With vertical packaging	
				Dimensions cm	Weight kg
300	319010149X	1.402,00 €	B	64x64x180	77
500	319010150X	1.778,00 €	C	77x77x184	111
750	319010203X	2.235,00 €	C	95x95x178	154
1000	319010006	2.768,00 €	C	129x129x216	181
1500	319010007	3.460,00 €	C	125x125x229	268
2000	319010008	4.355,00 €	C	136x136x261	346
2500	319010155X	4.641,00 €		147x147x234	383
3000	319010156X	5.412,00 €		147x147x284	460
4000	319010157X	6.930,00 €		163x163x293	628
5000	319010158X	7.897,00 €		183x183x299	730



PRICES
PUW2

PUFFER

PU dimensions

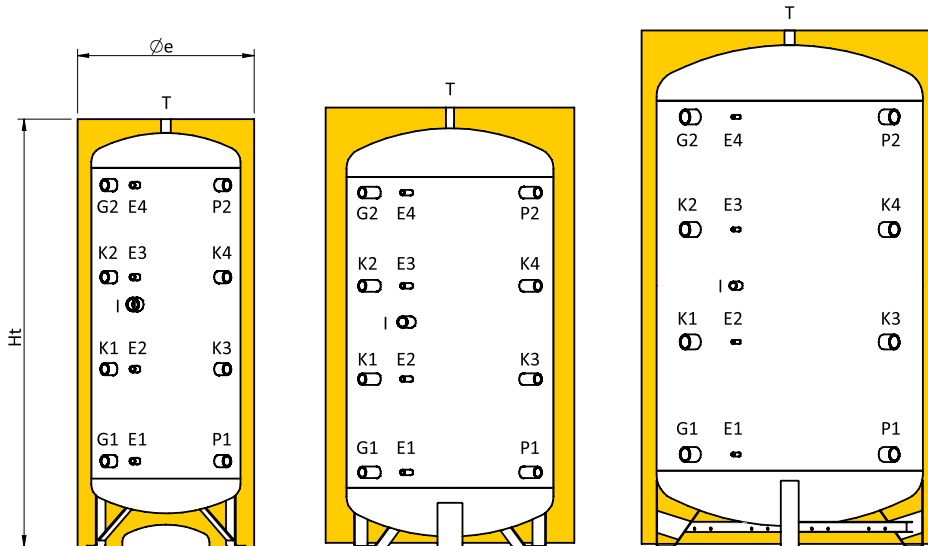
300 ≤ cap. ≤ 1,000

1.500 ≤ cap. ≤ 5,000

6.00 ≤ cap. ≤ 10,000

Connection legend

E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
E4	Probe/Thermometer
G1	Input from plant
G2	Output to plant
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
K4	Auxiliary
P1	Output to energy source
P2	Input from energy source
T	Venting



Connection table

Cap. L	E1 inches	E2 inches	E3 inches	E4 inches	G1 inches	G2 inches	I inches	K1 inches	K2 inches	K3 inches	K4 inches	P1 inches	P2 inches	T inches
300	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4
500	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4
750	1/2"	1/2"	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
1000	1/2"	1/2"	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
1500	1/2"	1/2"	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1"
2000	1/2"	1/2"	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1"
2500	1/2"	1/2"	1/2"	1/2"	2"	2"	1 1/2	2"	2"	2"	2"	2"	2"	1"
3000	1/2"	1/2"	1/2"	1/2"	2"	2"	1 1/2	2"	2"	2"	2"	2"	2"	1"
4000	1/2"	1/2"	1/2"	1/2"	2"	2"	1 1/2	2"	2"	2"	2"	2"	2"	1"
5000	1/2"	1/2"	1/2"	1/2"	2"	2"	1 1/2	2"	2"	2"	2"	2"	2"	1"
6000	1/2"	1/2"	1/2"	1/2"	3"	3"	1 1/2	3"	3"	3"	3"	3"	3"	2"
8000	1/2"	1/2"	1/2"	1/2"	3"	3"	1 1/2	3"	3"	3"	3"	3"	3"	2"
10000	1/2"	1/2"	1/2"	1/2"	3"	3"	1 1/2	3"	3"	3"	3"	3"	3"	2"

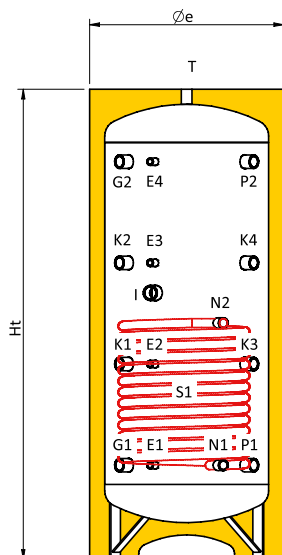
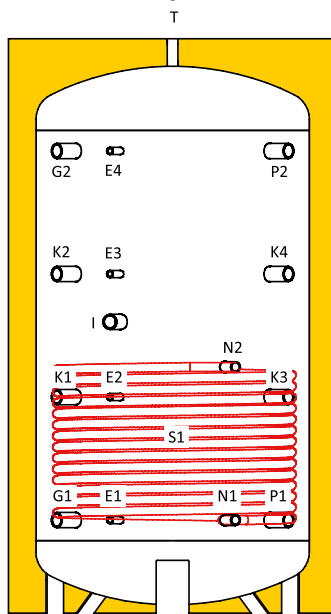
Size table

Cap. L	Øe mm	Ht mm	R* mm	E1 mm	E2 mm	E3 mm	E4 mm	G1 mm	G2 mm	I mm	K1 mm	K2 mm	K3 mm	K4 mm	P1 mm	P2 mm
300	610	1680	1790	325	695	1065	1435	325	1435	880	695	1065	695	1065	325	1435
500	760	1735	1895	355	725	1095	1465	355	1465	985	725	1095	725	1095	355	1465
750	910	1765	1990	395	745	1095	1445	395	1445	920	745	1095	745	1095	395	1445
1000	1010	2000	2245	330	770	1210	1650	330	1650	990	770	1210	770	1210	330	1650
1500	1250	2145	2475	360	810	1260	1710	360	1710	1085	810	1260	810	1260	360	1710
2000	1350	2475	2815	390	930	1470	2010	390	2010	1200	930	1470	930	1470	390	2010
2500	1450	2220	2655	425	865	1305	1745	425	1745	1145	865	1305	865	1305	425	1745
3000	1450	2720	3085	435	1035	1635	2235	435	2235	1435	1035	1635	1035	1635	435	2235
4000	1600	2810	3235	480	1080	1680	2280	480	2280	1430	1080	1680	1080	1680	480	2280
5000	1800	2870	3390	510	1110	1710	2310	510	2310	1510	1110	1710	1110	1710	510	2310
6000	2000	2790	3435	635	1155	1675	2195	635	2195	1415	1155	1675	1155	1675	635	2195
8000	2000	3490	4025	625	1385	2145	2905	625	2905	1615	1385	2145	1385	2145	625	2905
10000	2000	4240	4690	625	1635	2645	3655	625	3655	2365	1635	2645	1635	2645	625	3655

R*: Tipping height

PUFFER

Dimensions PUW 1

 $300 \leq \text{cap.} \leq 1,000$

 $1,500 \leq \text{cap.} \leq 5,000$


Connection legend

E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
E4	Probe/Thermometer
G1	Input from plant
G2	Output to plant
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
K4	Auxiliary
N1	Lower exchanger outlet
N2	Lower exchanger inlet
P1	Output to energy source
P2	Input from energy source
S1	Lower Serpentine
T	Venting

Connection table

Cap. L	E1 inches	E2 inches	E3 inches	E4 inches	G1 inches	G2 inches	I inches	K1 inches	K2 inches	K3 inches	K4 inches	N1 inches	N2 inches	P1 inches	P2 inches	T inches
300	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1"	1"	1 1/4	1 1/4	1 1/4
500	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1"	1"	1 1/4	1 1/4	1 1/4
750	1/2"	1/2"	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1"	1"	1 1/2	1 1/2	1 1/2
1000	1/2"	1/2"	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1"	1"	1 1/2	1 1/2	1 1/2
1500	1/2"	1/2"	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1"	1"	1 1/2	1 1/2	1"
2000	1/2"	1/2"	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1"	1"	1 1/2	1 1/2	1"
2500	1/2"	1/2"	1/2"	1/2"	2"	2"	1 1/2	2"	2"	2"	2"	1"	1"	2"	2"	1"
3000	1/2"	1/2"	1/2"	1/2"	2"	2"	1 1/2	2"	2"	2"	2"	1"	1"	2"	2"	1"
4000	1/2"	1/2"	1/2"	1/2"	2"	2"	1 1/2	2"	2"	2"	2"	1"	1"	2"	2"	1"
5000	1/2"	1/2"	1/2"	1/2"	2"	2"	1 1/2	2"	2"	2"	2"	1"	1"	2"	2"	1"

Size table

Cap. L	Øe mm	Ht mm	R* mm	E1 mm	E2 mm	E3 mm	E4 mm	G1 mm	G2 mm	I mm	K1 mm	K2 mm	K3 mm	K4 mm	N1 mm	N2 mm	P1 mm	P2 mm	S1 m2
300	610	1680	1790	325	695	1065	1435	325	1435	880	695	1065	695	1065	325	685	325	1435	1
500	760	1735	1895	355	725	1095	1465	355	1465	985	725	1095	725	1095	355	875	355	1465	1.9
750	910	1765	1990	395	745	1095	1445	395	1445	920	745	1095	745	1095	395	875	395	1445	2.5
1000	1010	2000	2245	330	770	1210	1650	330	1650	990	770	1210	770	1210	330	890	330	1650	3.1
1500	1250	2145	2475	360	810	1260	1710	360	1710	1085	810	1260	810	1260	360	920	360	1710	3.8
2000	1350	2475	2815	390	930	1470	2010	390	2010	1200	930	1470	930	1470	390	990	390	2010	4.6
2500	1450	2220	2655	425	865	1305	1745	425	1745	1145	865	1305	865	1305	425	985	425	1745	5
3000	1450	2720	3085	435	1035	1635	2235	435	2235	1435	1035	1635	1035	1635	435	1115	435	2235	6
4000	1600	2810	3235	480	1080	1680	2280	480	2280	1430	1080	1680	1080	1680	480	1160	480	2280	7
5000	1800	2870	3390	510	1110	1710	2310	510	2310	1510	1110	1710	1110	1710	510	1190	510	2310	8

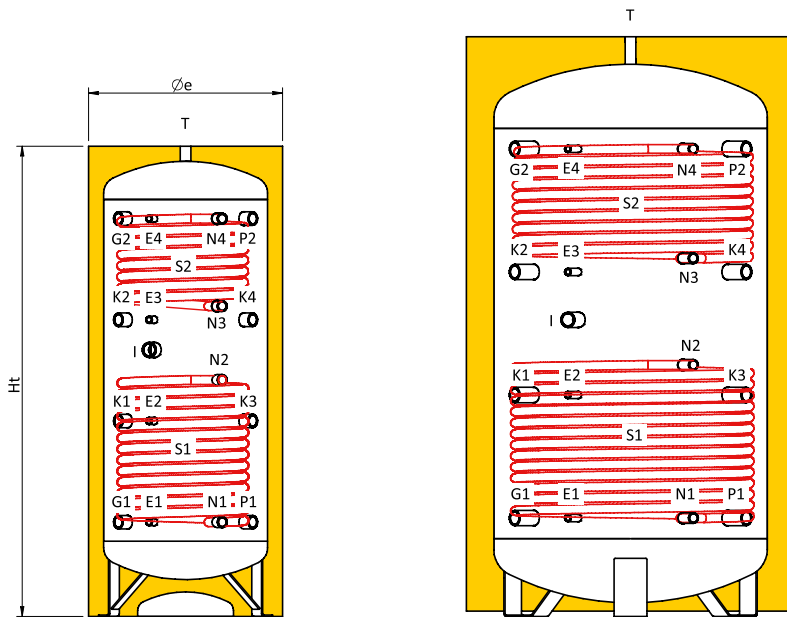
R*: Tipping height

PUFFER

Dimensions PUW 2

300 ≤ cap. ≤ 1,000

1.500 ≤ cap. ≤ 5,000



Connection legend

E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
E4	Probe/Thermometer
G1	Input from plant
G2	Output to plant
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
K4	Auxiliary
N1	Lower exchanger outlet
N2	Lower exchanger inlet
N3	Upper exchanger outlet
N4	Upper exchanger inlet
P1	Output to energy source
P2	Input from energy source
S1	Lower Serpentine
S2	Upper Serpentine
T	Venting

Connection table

Cap. L	E1 inches	E2 inches	E3 inches	E4 inches	G1 inches	G2 inches	I inches	K1 inches	K2 inches	K3 inches	K4 inches	N1 inches	N2 inches	N3 inches	N4 inches	P1 inches	P2 inches	T inches
300	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1"	1"	1"	1"	1 1/4	1 1/4	1 1/4
500	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1"	1"	1"	1"	1 1/4	1 1/4	1 1/4
750	1/2"	1/2"	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1"	1"	1"	1"	1 1/2	1 1/2	1 1/2
1000	1/2"	1/2"	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1"	1"	1"	1"	1 1/2	1 1/2	1 1/2
1500	1/2"	1/2"	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1"	1"	1"	1"	1 1/2	1 1/2	1"
2000	1/2"	1/2"	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1"	1"	1"	1"	1 1/2	1 1/2	1"
2500	1/2"	1/2"	1/2"	1/2"	2"	2"	1 1/2	2"	2"	2"	2"	1"	1"	1"	1"	2"	2"	1"
3000	1/2"	1/2"	1/2"	1/2"	2"	2"	1 1/2	2"	2"	2"	2"	1"	1"	1"	1"	2"	2"	1"
4000	1/2"	1/2"	1/2"	1/2"	2"	2"	1 1/2	2"	2"	2"	2"	1"	1"	1"	1"	2"	2"	1"
5000	1/2"	1/2"	1/2"	1/2"	2"	2"	1 1/2	2"	2"	2"	2"	1"	1"	1"	1"	2"	2"	1"

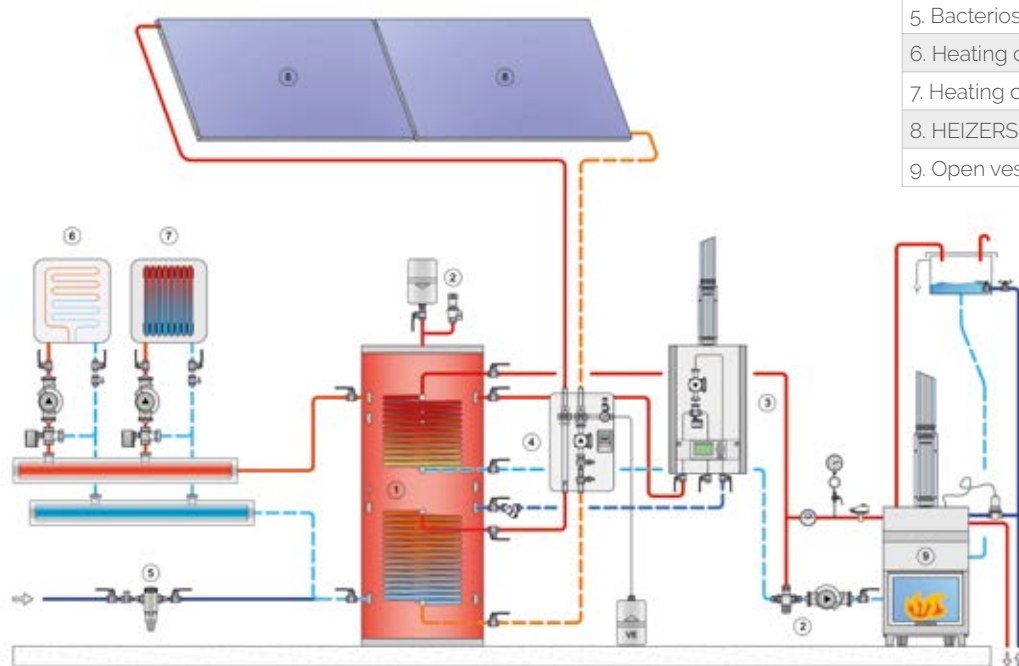
Size table

Cap. L	Øe mm	Ht mm	R* mm	E1 mm	E2 mm	E3 mm	E4 mm	G1 mm	G2 mm	I mm	K1 mm	K2 mm	K3 mm	K4 mm	N1 mm	N2 mm	N3 mm	N4 mm	P1 mm	P2 mm	S1 m²	S2 m²
300	610	1680	1790	325	695	1065	1435	325	1435	880	695	1065	695	1065	325	685	685	1075	325	1435	1	1
500	760	1735	1895	355	725	1095	1465	355	1465	985	725	1095	725	1095	355	875	1145	1465	355	1465	1,9	1,2
750	910	1765	1990	395	745	1095	1445	395	1445	920	745	1095	745	1095	395	875	1165	1445	395	1445	2,5	1,5
1000	1010	2000	2245	330	770	1210	1650	330	1650	990	770	1210	770	1210	330	890	1210	1650	330	1650	3,1	2,5
1500	1240	2140	2475	360	810	1260	1710	360	1710	1085	810	1260	810	1260	360	920	920	1310	360	1710	3,8	2,8
2000	1340	2470	2815	390	930	1470	2010	390	2010	1200	930	1470	930	1470	390	990	990	1650	390	2010	4,6	2,8
2500	1450	2220	2655	425	865	1305	1745	425	1745	1145	865	1305	865	1305	425	985	985	1305	425	1745	5	4
3000	1450	2720	3085	435	1035	1635	2235	435	2235	1435	1035	1635	1035	1635	435	1115	1115	1755	435	2235	6	4,2
4000	1600	2810	3235	480	1080	1680	2280	480	2280	1430	1080	1680	1080	1680	480	1160	1160	1800	480	2280	7	5
5000	1800	2870	3390	510	1110	1710	2310	510	2310	1510	1110	1710	1110	1710	510	1190	1190	1910	510	2310	8	5

R*: Tipping height

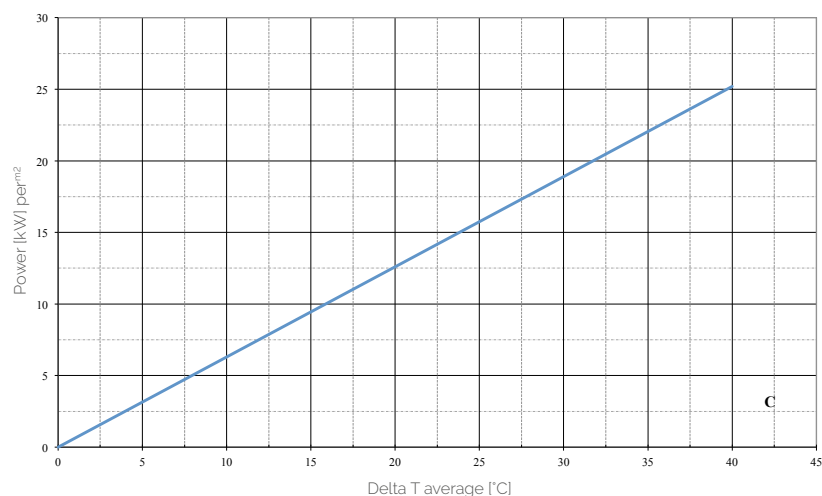
PUFFER

Installation diagram



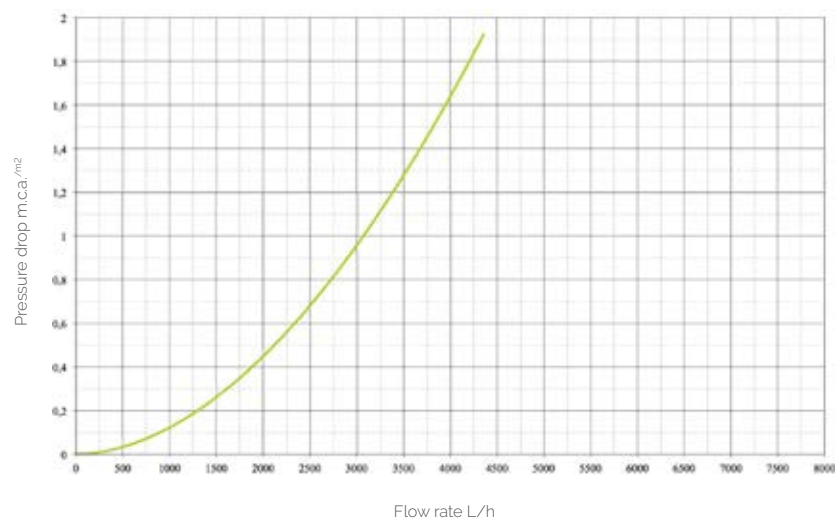
List of components

1. HEIZERSILE PUW 2
2. Safety group
3. Sile MG3V condensate boiler
4. Solar thermal return unit
5. Bacteriostatic cold water filter
6. Heating circuit 1
7. Heating circuit 2
8. HEIZERSILE solar collectors
9. Open vessel boiler or fireplace



Fixed coil power

The graph shows the power exchanged by the fixed exchanger as a function of the storage tank temperature



Fixed coil pressure losses

The pressure drops shown in the graph refer to the surface area of 1 m² of coil. Multiply this value by the exchange surface area to obtain the total pressure drop.

Wenkel S.r.l

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Subject to control and coordination by Fiorini Industries S.r.l.

