Hot Water Storage Tanks
PUFFER



PUFFER
Hot Water storage tanks

The Puffer tanks are inertial tanks for heating installations which store non-domestic hot water. They are used in all devices powered by discontinuous power sources (e.g. solar panels, wood burners, boiler stoves, etc.) or wherever the volume of water stored in the device must be increased (e.g. devices with heat pumps, combined heat and power units, biomass burners, etc.). Several versions are available, to be used with one or more energy sources:

PFA Regular storage tank
PFB Storage tank fitted with smooth tube heat exchanger to add an additional power source (e.g. solar).
PFC Storage tank fitted with two smooth tube heat exchangers to add two additional power sources (e.g. solar and boiler stove).



TESTED

Materials
All storage tanks are made of carbon steel sheets, externally varnished

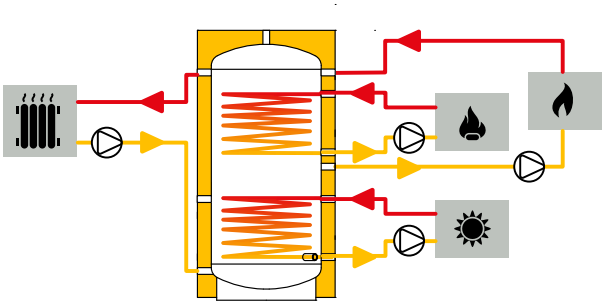
Insulation

Capacity (l)	Type
from 300 to 1000	Highly rigid polyurethane foam
from 1500 to 5000	Polyester Fiber
from 6000	Flexible polyurethane foam

Operational limits

Model	Storage tank		S1 Coil Circuit		S2 Coil Circuit	
	max. temperature	max. pressure	max. temperature	max. pressure	max. temperature	max. pressure
PFA	95°C	6 bar	-	-	-	-
PFB	95°C	6 bar	99°C	9 bar	-	-
PFC	95°C	6 bar	99°C	9 bar	99°C	9 bar

Standard Accessories: see pag 284
Special versions: see pag 286



PUFFER
Product code

PFA series

capacity l	code	price	energy label	packed dimensions cm	packed weight kg
300	817010119X		B	64x64x180	55
500	817010120X		C	77x77x184	77
750	817010216X		C	95x95x178	109
1000	817010002		C	129x129x216	125
1500	817010003		C	125x125x229	194
2000	817010004		C	136x136x261	263
2500	817010101X			147x147x234	296
3000	817010102X			147x147x284	346
4000	817010103X			163x163x293	492
5000	817010104X			183x183x299	582
6000	817010129X			282x203x217,5	684
8000	817010130X			352x203x217,5*	823
10000	817010131X			427x203x217,5*	973

*Shipping by container requires open top containers

PFB series

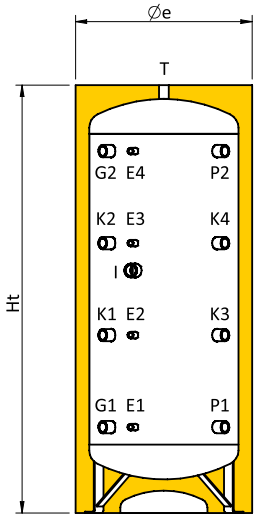
capacity l	code	price	energy label	packed dimensions cm	packed weight kg
300	819010129X		B	64x64x180	65
500	819010130X		C	77x77x184	98
750	819010202X		C	95x95x178	137
1000	819010003		C	129x129x216	153
1500	819010004		C	125x125x229	237
2000	819010005		C	136x136x261	315
2500	819010135X			147x147x234	352
3000	819010136X			147x147x284	413
4000	819010137X			163x163x293	571
5000	819010138X			183x183x299	672

PFC series

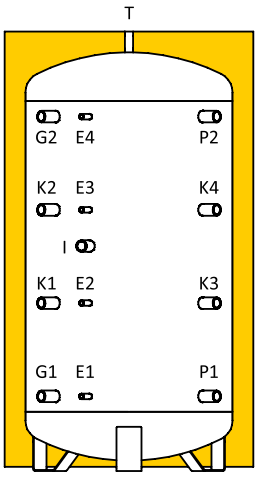
capacity l	code	price	energy label	packed dimensions cm	packed weight kg
300	819010149X		B	64x64x180	77
500	819010150X		C	77x77x184	111
750	819010203X		C	95x95x178	154
1000	819010006		C	129x129x216	181
1500	819010007		C	125x125x229	268
2000	819010008		C	136x136x261	346
2500	819010155X			147x147x234	383
3000	819010156X			147x147x284	460
4000	819010157X			163x163x293	628
5000	819010158X			183x183x299	730

PUFFER
Size PFA

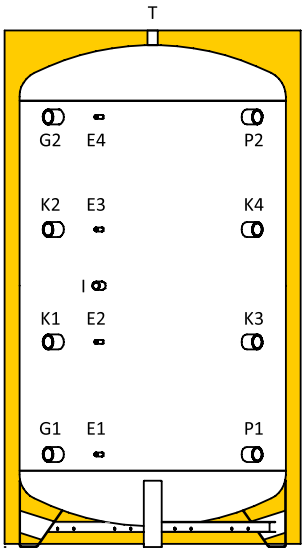
300 ≤ cap. ≤ 1.000



1.500 ≤ cap. ≤ 5.000



6.00 ≤ cap. ≤ 10.000



Couplings legend

E1	Probe / Thermometer
E2	Probe / Thermometer
E3	Probe / Thermometer
E4	Probe / Thermometer
G1	From plant
G2	To plant
I	Electrical resistor
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
K4	Auxiliary
P1	To energy source
P2	From energy source
T	Vent

Couplings chart

Cap. l	E1 inch	E2 inch	E3 inch	E4 inch	G1 inch	G2 inch	I inch	K1 inch	K2 inch	K3 inch	K4 inch	P1 inch	P2 inch	T inch
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"

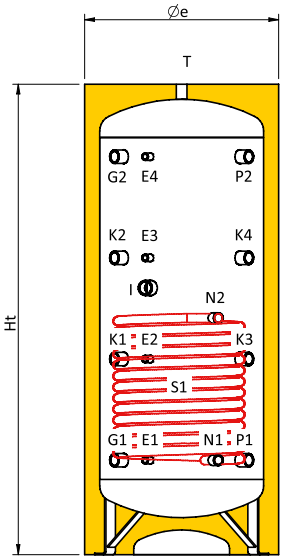
Size chart

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

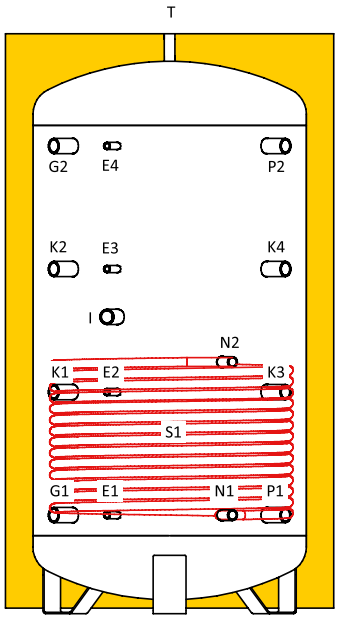
R*: reversal quota

PUFFER
Size PFB

300 ≤ cap. ≤ 1.000



1.500 ≤ cap. ≤ 5.000



Couplings legend

E1	Probe / Thermometer
E2	Probe / Thermometer
E3	Probe / Thermometer
E4	Probe / Thermometer
G1	Ingresso da impianto
G2	To plant
I	Electrical resistor
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
K4	Auxiliary
N1	Lower exchanger outlet
N2	Lower exchanger inlet
P1	To energy source
P2	Ingresso da fonte energetica
S1	From energy source
T	Vent

Couplings chart

Cap. l	E1 inch	E2 inch	E3 inch	E4 inch	G1 inch	G2 inch	I inch	K1 inch	K2 inch	K3 inch	K4 inch	N1 inch	N2 inch	P1 inch	P2 inch	T inch
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"

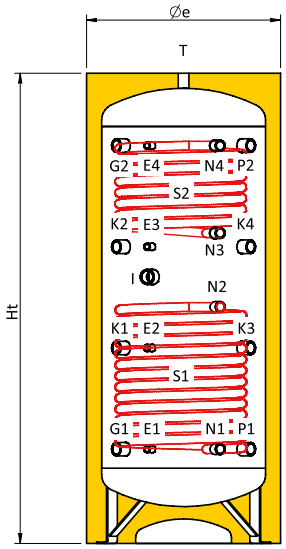
Size chart

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

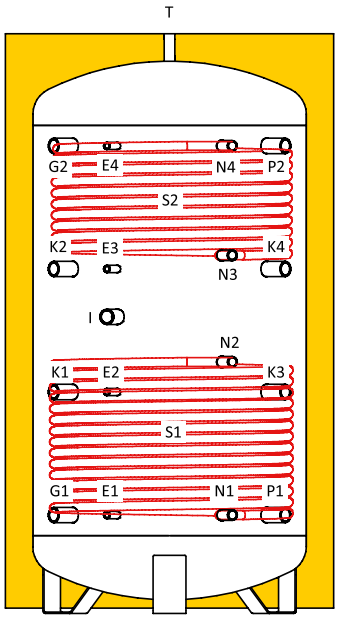
R*: reversal quota

PUFFER
Size PFC

300 ≤ cap. ≤ 1.000



1.500 ≤ cap. ≤ 5.000



Couplings legend

E1	Probe / Thermometer
E2	Probe / Thermometer
E3	Probe / Thermometer
E4	Probe / Thermometer
G1	From plant
G2	To plant
I	Electrical resistor
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	To energy source
P2	From energy source
S1	Lower exchanger
S2	Upper exchanger
T	Vent

Couplings chart

Cap. l	E1 inch	E2 inch	E3 inch	E4 inch	G1 inch	G2 inch	I inch	K1 inch	K2 inch	K3 inch	K4 inch	N1 inch	N2 inch	N3 inch	N4 inch	P1 inch	P2 inch	T inch
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"

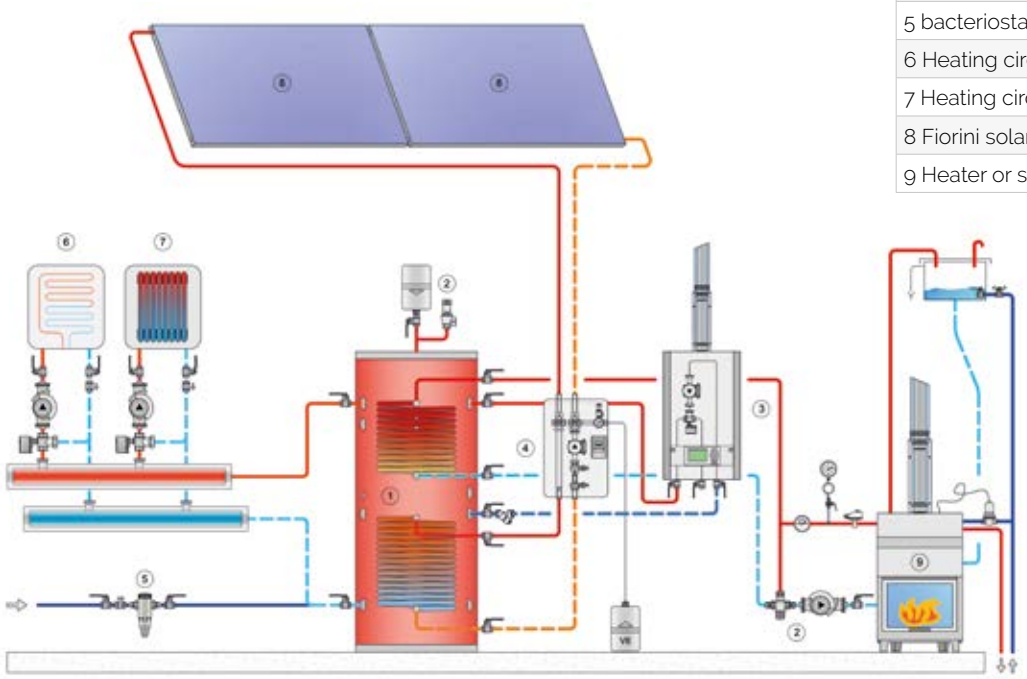
Size chart

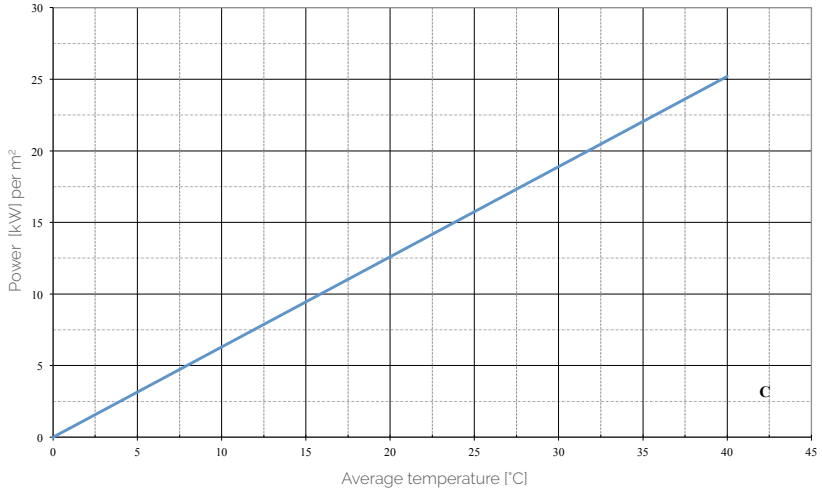
Cap. l	Øe mm	Ht mm	R* mm	E1 mm	E2 mm	E3 mm	E4 mm	G1 mm	G2 mm	I mm	K1 mm	K2 mm	K3 mm	K4 mm	N1 mm	N2 mm	N3 mm	N4 mm	P1 mm	P2 mm	S1 m²	S2 m²
300	610	1680	1790	325	695	1065	1435	325	1435	880	695	1065	695	1065	325	685	685	1075	325	1435	1	1
500	760	1735	1895	355	725	1095	1465	355	1465	985	725	1095	725	1095	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*: reversal quota

PUFFER
Installation chart

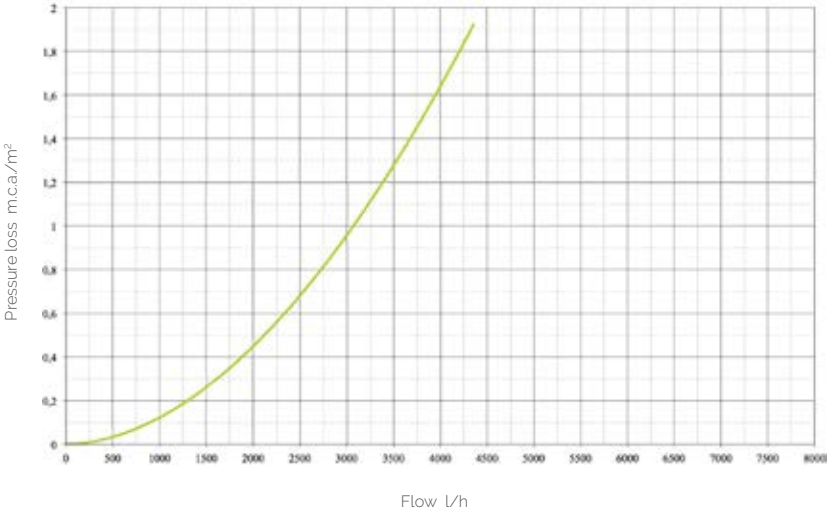
List of components
1 PFC Fiorini Puffer
2 Safety unit
3 Heating by alternative source
4 solar thermal return unit
5 bacteriostatic cold water filter
6 Heating circuit 1
7 Heating circuit 2
8 Fiorini solar collectors
9 Heater or stove with open vessel





Fixed coil power

The chart indicates maximum exchanged power by the fix internal coil depending on the temperature difference between water into the coil and water into the tank.



Pressure loss in the fixed coil

The pressure loss indicated in the chart refers to a surface area of 1 m2 of the coil. Multiply this value with the exchange surface in order to come to the total pressure loss.



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