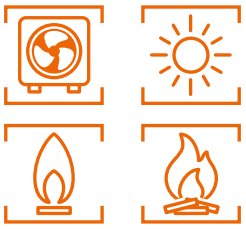
PF - Hot water buffer store Pufferspeicher

Carbon steel hot water buffer store for the storage of primary water produced from continuous and discontinuous heat sources.
Available in the following options:
- only storage
- storage + one auxiliary coil
- storage + two auxiliary coils

The thermal fluid contained in the cylinder and in the primary heat exchangers must operate in closed circuit (without oxygen), in order to avoid corrosion phenomena. Cylinders are also prepared to host a backup immersion heater (not supplied).

HEAT SOURCE



APPLICATION

TECHNICAL FEATURES

Buffer vessel	**Material**	S 235 Jr Carbon steel
	Internal protective treatment	None
	External protective treatment	Anti rust protection + epoxy painting
	Rating (P max. / T max.)	4 or 6 bar / 95°C
Heat exchanger	**Material**	S 235 Jr Carbon steel
	Internal protective treatment	None
	External protective treatment	None
	Type	Fixed coil
	Rating (P max. / T max.)	10 bar / 95°C
General features	**Capacity**	300 - 5000 L
	Warranty	5 years
	Insulation	- Soft insulation with polyester + PVC: Fire retardant class B2 (DIN 4102) - Hard insulation: - Polyurethane foam + PVC for 300/500/600/800/100/1500/2000 litres capacity: Fire retardant class B3 (DIN 4102) - Polyester (15mm) + polystyrene (85mm) + PVC for 1250/2500/3000/4000/5000 litres capacity: Fire retardant class B2 (DIN 4102)
	In compliance with	- Pressure Equipment Directive (PED) 2014/68/UE Art. 4 Para 3 - Energy related Products (Erp) Directive 2009/125/CE

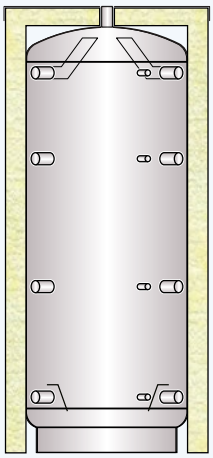
ACCESSORIES (page 218)

Electronic control unit

Thermostat

Thermometer

1"½ electric immersion heater

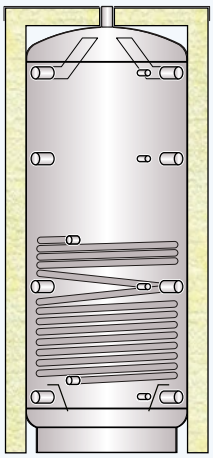


PF - Hot water buffer store
Hard insulation and PVC jacket

WORKING PRESSURE 4 bar CODE	WORKING PRESSURE 6 bar CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)
PF 00300 R	PF 00306 R	50	B	57,3	289,8
PF 00500 R	PF 00506 R	50	B	69,7	499,8
PF 00600 R	PF 00606 R	50	C	94,7	585,2
PF 00800 R	PF 00806 R	100	C	109,9	749,3
PF 01000 R	PF 01006 R	100	C	113,8	931,0
PF 01250 R	PF 01256 R	100	C	140,0	1266,8
PF 01500 R	PF 01506 R	100	C	132,8	1472,4
PF 02000 R	PF 02006 R	100	C	143,5	1950,0
PF 02500 R	PF 02506 R	100	-	-	2493,5
PF 03000 R	PF 03006 R	100	-	-	2957,5
PF 04000 R	PF 04006 R	100	-	-	3894,4
PF 05000 R	PF 05006 R	100	-	-	5005,2

PF - Hot water buffer store
Soft insulation with polyester and PVC jacket

WORKING PRESSURE 4 bar CODE	WORKING PRESSURE 6 bar CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)
PF 00800 F	PF 00806 F	130	C	129,4	749,3
PF 01000 F	PF 01006 F	130	C	141,2	931,0
PF 01250 F	PF 01256 F	130	C	159,6	1266,8
PF 01500 F	PF 01506 F	130	C	168,2	1472,4
PF 02000 F	PF 02006 F	130	C	184,0	1950,0
PF 02500 F	PF 02506 F	100	-	-	2493,5
PF 03000 F	PF 03006 F	100	-	-	2957,5
PF 04000 F	PF 04006 F	100	-	-	3894,4
PF 05000 F	PF 05006 F	100	-	-	5005,2



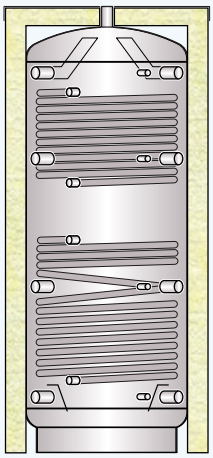
PFS - Hot water buffer store with one coil
Hard insulation and PVC jacket

WORKING PRESSURE 4 bar CODE	WORKING PRESSURE 6 bar CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)	HEAT EXCHANGER (m^2) / (L) *
PFS 00300 R	PFS 00306 R	50	B	57,3	289,8	1,40 / 13,7
PFS 00500 R	PFS 00506 R	50	B	69,7	499,8	2,00 / 19,6
PFS 00600 R	PFS 00606 R	50	C	94,7	585,2	2,50 / 24,5
PFS 00800 R	PFS 00806 R	100	C	109,9	749,3	2,50 / 24,5
PFS 01000 R	PFS 01006 R	100	C	113,8	931,0	3,50 / 34,3
PFS 01250 R	PFS 01256 R	100	C	140,0	1266,8	3,80 / 37,2
PFS 01500 R	PFS 01506 R	100	C	132,8	1472,4	4,00 / 39,2
PFS 02000 R	PFS 02006 R	100	C	143,5	1950,0	4,80 / 47,0
PFS 02500 R	PFS 02506 R	100	-	-	2493,5	4,80 / 47,0
PFS 03000 R	PFS 03006 R	100	-	-	2957,5	6,00 / 58,8
PFS 04000 R	PFS 04006 R	100	-	-	3894,4	7,00 / 68,6
PFS 05000 R	PFS 05006 R	100	-	-	5005,2	8,00 / 78,4

PFS - Hot water buffer store with one coil
Soft insulation with polyester and PVC jacket

WORKING PRESSURE 4 bar CODE	WORKING PRESSURE 6 bar CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)	HEAT EXCHANGER (m^2) / (L) *
PFS 00800 F	PFS 00806 F	130	C	129,4	749,3	2,50 / 24,5
PFS 01000 F	PFS 01006 F	130	C	141,2	931,0	3,50 / 34,3
PFS 01250 F	PFS 01256 F	130	C	159,6	1266,8	3,80 / 37,2
PFS 01500 F	PFS 01506 F	130	C	168,2	1472,4	4,00 / 39,2
PFS 02000 F	PFS 02006 F	130	C	184,0	1950,0	4,80 / 47,0
PFS 02500 F	PFS 02506 F	100	-	-	2493,5	4,80 / 47,0
PFS 03000 F	PFS 03006 F	100	-	-	2957,5	6,00 / 58,8
PFS 04000 F	PFS 04006 F	100	-	-	3894,4	7,00 / 68,6
PFS 05000 F	PFS 05006 F	100	-	-	5005,2	8,00 / 78,4

** Volume occupied by the heat exchanger and its support structure*



PFSS - Hot water buffer store with two coils
Hard insulation and PVC jacket

WORKING PRESSURE 4 bar CODE	WORKING PRESSURE 6 bar CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)	AUXILIARY HEAT EXCHANGER LOWER (m^2) / (L) *	UPPER (m^2) / (L) *
PFSS 00300 R	PFSS 00306 R	50	B	57,3	289,8	1,40 / 13,7	1,10 / 10,8
PFSS 00500 R	PFSS 00506 R	50	B	69,7	499,8	2,00 / 19,6	1,80 / 17,6
PFSS 00600 R	PFSS 00606 R	50	C	94,7	585,2	2,50 / 24,5	1,80 / 17,6
PFSS 00800 R	PFSS 00806 R	100	C	109,9	749,3	2,50 / 24,5	2,00 / 19,6
PFSS 01000 R	PFSS 01006 R	100	C	113,8	931,0	3,50 / 34,3	2,50 / 24,5
PFSS 01250 R	PFSS 01256 R	100	C	140,0	1266,8	3,80 / 37,2	2,60 / 25,5
PFSS 01500 R	PFSS 01506 R	100	C	132,8	1472,4	4,00 / 39,2	2,80 / 27,4
PFSS 02000 R	PFSS 02006 R	100	C	143,5	1950,0	4,80 / 47,0	3,80 / 37,2
PFSS 02500 R	PFSS 02506 R	100	-	-	2493,5	4,80 / 47,0	3,80 / 37,2
PFSS 03000 R	PFSS 03006 R	100	-	-	2957,5	6,00 / 58,8	3,80 / 37,2
PFSS 04000 R	PFSS 04006 R	100	-	-	3894,4	7,00 / 68,6	4,50 / 44,1
PFSS 05000 R	PFSS 05006 R	100	-	-	5005,2	8,00 / 78,4	5,00 / 49,0

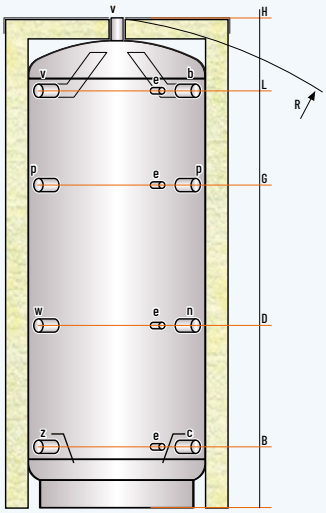
PFSS - Hot water buffer store with two coils
Soft insulation with polyester and PVC jacket

WORKING PRESSURE 4 bar CODE	WORKING PRESSURE 6 bar CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)	AUXILIARY HEAT EXCHANGER LOWER (m^2) / (L) *	UPPER (m^2) / (L) *
PFSS 00800 F	PFSS 00806 F	130	C	129,4	749,3	2,50 / 24,5	2,00 / 19,6
PFSS 01000 F	PFSS 01006 F	130	C	141,2	931,0	3,50 / 34,3	2,50 / 24,5
PFSS 01250 F	PFSS 01256 F	130	C	159,6	1266,8	3,80 / 37,2	2,60 / 25,5
PFSS 01500 F	PFSS 01506 F	130	C	168,2	1472,4	4,00 / 39,2	2,80 / 27,4
PFSS 02000 F	PFSS 02006 F	130	C	184,0	1950,0	4,80 / 47,0	3,80 / 37,2
PFSS 02500 F	PFSS 02506 F	100	-	-	2493,5	4,80 / 47,0	3,80 / 37,2
PFSS 03000 F	PFSS 03006 F	100	-	-	2957,5	6,00 / 58,8	3,80 / 37,2
PFSS 04000 F	PFSS 04006 F	100	-	-	3894,4	7,00 / 68,6	4,50 / 44,1
PFSS 05000 F	PFSS 05006 F	100	-	-	5005,2	8,00 / 78,4	5,00 / 49,0

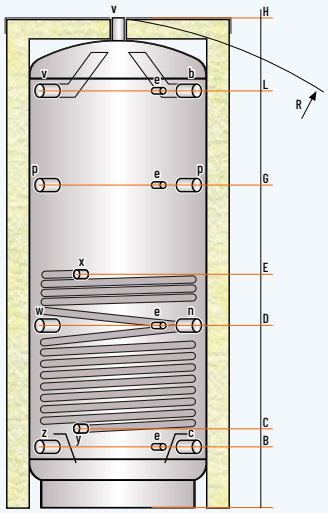
** Volume occupied by the heat exchanger and its support structure*

Dimensions and heights

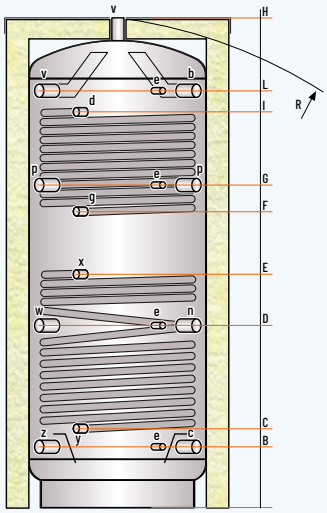
PF

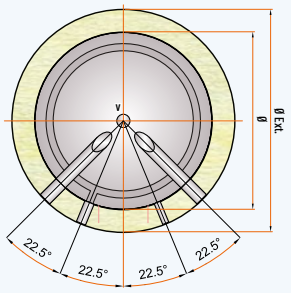


PFS



PFSS





LEGEND

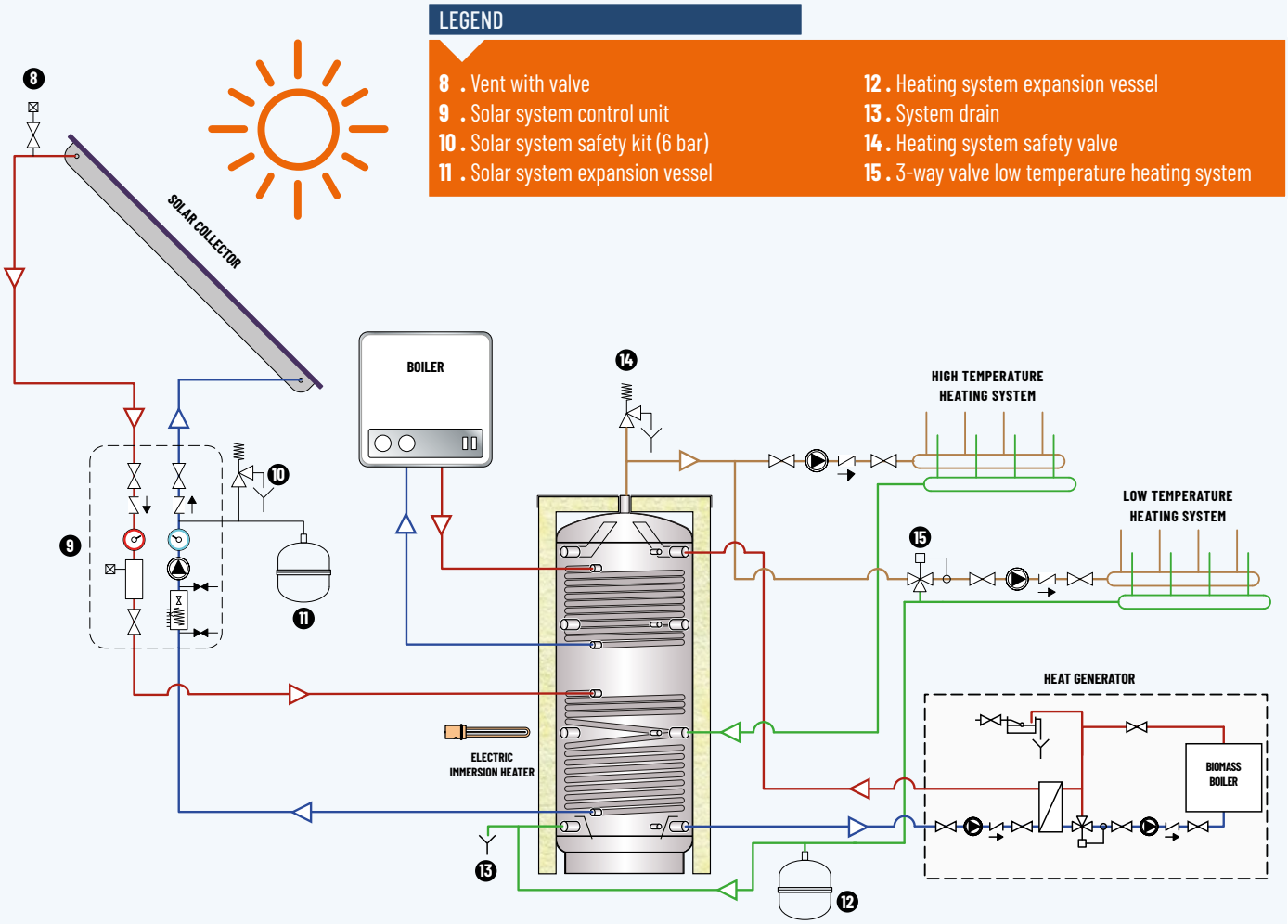
b . Biomass boiler flow
c . Biomass boiler return
d . Boiler flow
e . Thermometer - Sensor
g . Boiler return
n . Heating system return
p . Free connection
x . Solar system flow
y . Solar system return
v . Heating system flow
w. Opening for immersion heater
z . Low temperature heating system return

WORKING PRESSURE 4 & 6 bar MODEL	DIMENSIONS (mm) Ø	H	Ø EXT (Hard/Soft ins.) **	R *	LOWER HEAT EXCHANGER (m²)	UPPER HEAT EXCHANGER (m²)	WEIGHT PFSS (kg)
PF_ 00300 R	500	1595	600	1720 *	1,40	1,10	70
PF_ 00500 R	650	1645	750	1820 *	2,00	1,80	110
PF_ 00600 R	650	1895	750	2050 *	2,50	1,80	120
PF_ 00800_	790	1750	990/1050	1745	2,50	2,00	149
PF_ 01000_	790	2110	990/1050	2095	3,50	2,50	183
PF_ 01250_	950	2075	1150/1210	2090	3,80	2,60	215
PF_ 01500_	1000	2115	1200/1260	2145	4,00	2,80	237
PF_ 02000_	1100	2380	1300/1360	2385	4,80	3,80	301
PF_ 02500_	1200	2495	1400	2550	4,80	3,80	354
PF_ 03000_	1250	2710	1450	2760	6,00	3,80	423
PF_ 04000_	1400	2820	1600	2905	7,00	4,50	492
PF_ 05000_	1600	2850	1800	3005	8,00	5,00	572

** For capacities from 300 to 600 litres, the tilt height refers to the insulated cylinder*
*** The insulation is removable except for models from 300 to 600 litres*

WORKING PRESSURE 4 & 6 bar MODEL	HEIGHTS (mm) B	C	D	E	F	G	I	L	CONNECTIONS (GAS) d g x y	e	b c n p v w z
PF_ 00300 R	215	290	595	810	930	1080	1290	1350	1"	½"	1"½
PF_ 00500 R	240	315	615	835	955	1105	1315	1375	1"	½"	1"½
PF_ 00600 R	235	315	700	1000	1120	1270	1480	1630	1"	½"	1"½
PF_ 00800_	275	355	655	875	1015	1145	1345	1410	1"	½"	1"½
PF_ 01000_	275	350	810	1035	1195	1355	1675	1755	1"	½"	1"½
PF_ 01250_	320	400	745	1060	1200	1380	1600	1705	1"	½"	1"½
PF_ 01500_	340	420	765	1080	1220	1400	1620	1725	1"	½"	1"½
PF_ 02000_	370	450	930	1090	1230	1435	1710	1945	1"	½"	1"½
PF_ 02500_	385	480	940	1120	1300	1500	1700	2050	1"	½"	2"
PF_ 03000_	400	490	1015	1210	1430	1645	1830	2255	1"	½"	2"
PF_ 04000_	460	550	1085	1270	1490	1710	1930	2315	1"	½"	2"
PF_ 05000_	465	555	1080	1275	1495	1710	1895	2320	1"	½"	2"

Disclaimer: *this layout is purely indicative. It does not replace consultant's design*



Lower heat exchanger performance

Upper heat exchanger performance

CODE	m² (L)	Power (kW) ΔT* 10 °C	ΔT* 15 °C	ΔT* 20 °C	ΔT* 25 °C	m² (L)	Power (kW) ΔT* 10 °C	ΔT* 15 °C	ΔT* 20 °C	ΔT* 25 °C
PF_ 00300 R	1,4 (9,9)	9,0	13,4	17,9	22,4	1,1 (7,8)	7,0	10,6	14,1	17,6
PF_ 00500 R	2,0 (14,2)	12,8	19,2	25,6	32,0	1,8 (12,8)	11,5	17,3	23,0	28,8
PF_ 00600 R	2,5 (17,8)	16,0	24,0	32,0	40,0	1,8 (12,8)	11,5	17,3	23,0	28,8
PF_ 00800_	2,5 (17,8)	16,0	24,0	32,0	40,0	2,0 (14,2)	12,8	19,2	25,6	32,0
PF_ 01000_	3,5 (24,9)	22,4	33,6	44,8	56,0	2,5 (17,8)	16,0	24,0	32,0	40,0
PF_ 01250_	3,8 (27,0)	24,3	36,5	48,6	60,8	2,6 (18,5)	16,6	24,9	33,3	41,6
PF_ 01500_	4,0 (28,4)	25,6	38,4	51,2	64,0	2,8 (19,9)	17,9	26,9	35,8	44,8
PF_ 02000_	4,8 (34,1)	30,7	46,0	61,4	76,7	3,8 (27,0)	24,3	36,5	48,6	60,8
PF_ 02500_	4,8 (34,1)	30,7	46,0	61,4	76,7	3,8 (27,0)	24,3	36,5	48,6	60,8
PF_ 03000_	6,0 (42,6)	38,4	57,6	76,7	95,9	3,8 (27,0)	24,3	36,5	48,6	60,8
PF_ 04000_	7,0 (49,7)	44,8	67,2	89,5	111,9	4,5 (32,0)	28,8	43,2	57,6	71,9
PF_ 05000_	8,0 (56,8)	51,2	76,7	102,3	127,9	5,0 (35,5)	32,0	48,0	64,0	79,9

** ΔT: difference between the average temperature of the heating fluid (inside the heat exchanger) and the average temperature of the heated fluid (internal to the buffer in the area affected by the coil).*