

PUFFERMAS® 2

HEATING WATER BUFFER TANK WITH 1 FIXED HEAT EXCHANGER AND MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION



APPLICATION

Stratified storage of technical water and instantaneous production of domestic hot water (DHW) with high flow rates.

MATERIAL

Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.

DHW HEAT EXCHANGER

External MACS® module with Stainless steel 316L brazed plate exchanger for immediate D.H.W. production.

HEATING WATER HEAT EXCHANGER

N° 1 fixed heat exchanger suitable for solar thermal systems.

TECHNICAL DESCRIPTION

The immediate and fast production of D.H.W. granted by the MACS® module allows the following benefits:

- to reduce dimensions of the water heater needed
- easy maintenance
- maximum hygiene for anti-legionellosis bacteria's
- to produce more DHW than the quantity obtained by boiler with similar capacity because hot water is stored at a higher temperature than DHW.

INSULATION

Buffer tank: High thermal insulation with ecological hard polyurethane foam. Models 800-1000 available with dismantlable hard foam insulation

MACS® module: insulating PPE cover.

Grey PVC external lining.

WARRANTY

5 years (tank). See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



PUFFERMAS® 2 VB

Model	MACS® module model	HARD FOAM INSULATION Art. Nr.	SLB heat exchanger model / plates nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
500		3251162314823		1,9	C
600		3251162314824		2,1	C
800	70	3251162314825	SLB20 / 34	2,5	B
1000		3251162314826		3,1	C
1500		3251162314827		3,8	C
1000	120	3251162314828	SLB40/ 40	3,1	C
1500		3251162314829		3,8	C



Electronic MACS® module

PATENTED

Model	MACS® module model	DHW production (10-45°C) with accumulation at 80°C [lt/min]	Maximum availability of DHW (10-45°C) with accumulation at 80°C [lt]
500		37	680
600		37	800
800	70	37	1150
1000		37	1350
1500		37	2080
1000	120	61	1680
1500		61	2580

ACCESSORIES

Thermometer

Art. Nr.	
5032240000107	
5 units box	

Recirculation kit

Art. Nr.	
5221000000073	
DHW recirculation group	

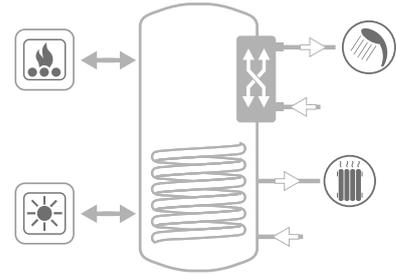
Buffer tanks connecting kit

Art. Nr.	Connection	
5006170001001	1" 1/2	
Stainless steel extensible connecting kit - (200 ÷ 400 mm)		

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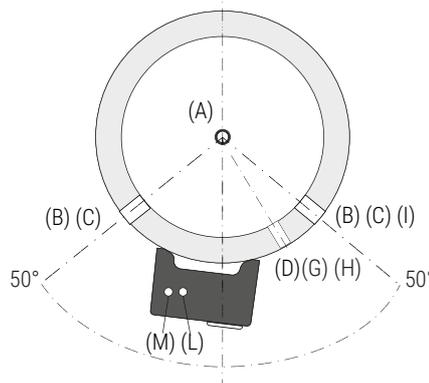
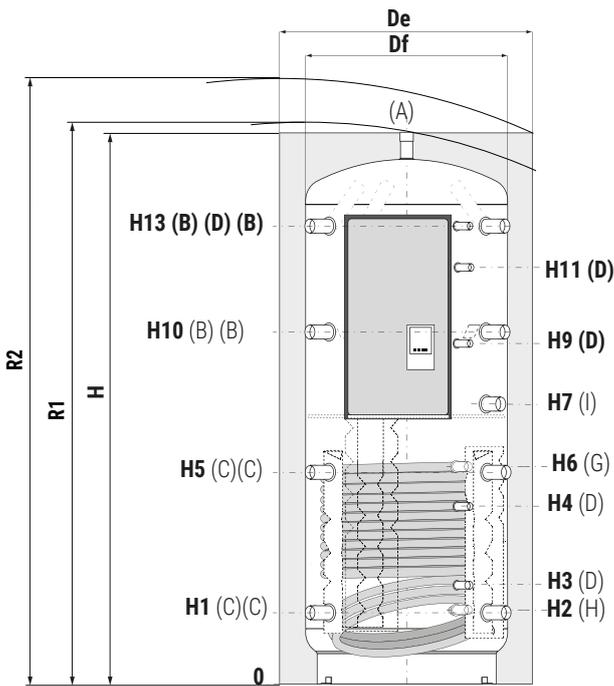
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STORAGE		FIXED HEAT EXCHANGER		HEAT EXCHANGER STAINLESS STEEL PLATES (MACS®)		DHW HARDNESS
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax	F max
3 bar	99 °C	12 bar	110 °C	8 bar	99 °C	30 °f



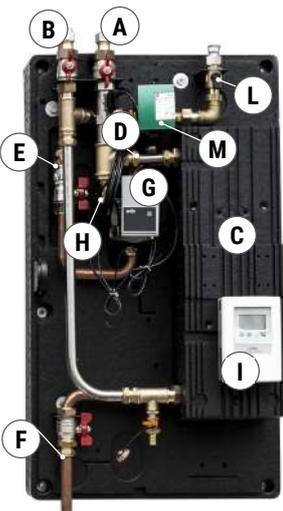
See TECHNICAL SUPPORT chapter for example of installation

- A** Heating delivery/From generator/Air purge 1"1/2 G F
- B** Heating delivery/From generator 1"1/2 G F
- C** Heating return/to generator 1"1/2 G F
- D** Probe 1/2" G F
- G** Fixed heat exchanger inlet 1" G F
- H** Fixed heat exchanger outlet 1" G F
- I** Connection for electric immersion heater 1"1/2 G F
- L** Domestic hot water outlet 3/4" G M (1" G M for models 120)
- M** Domestic cold water circuit inlet 3/4" G M (1" G M for models with MACS® 120)



Model	Volume [lt]	De	Df	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H9	H10	H11	H13
							[mm]										
500	478	750	650	1619	//	1785	247	260	360	533	629	744	870	1025	1011	1130	1343
600	560	750	650	1870	//	2015	247	260	360	582	695	855	970	1200	1144	1485	1593
800	805	940	790	1840	1880	2067	265	278	378	584	690	762	918	1115	1115	1442	1541
1000	946	940	790	2130	2165	2329	265	284	384	656	787	953	1145	1388	1309	1588	1831
1500	1454	1100	950	2250	//	2505	313	336	432	736	845	1006	1236	1396	1377	1783	1909

MACS® ELECTRONIC MODULE FOR IMMEDIATE D.H.W. PRODUCTION



A	Domestic hot water outlet (DHW)
B	Domestic Water inlet
C	Stainless steel 316L brazed plate exchanger
D	Flow rate/ temperature probe
E	Primary Inlet
F	Primary Outlet
G	"Energy Savings" Circulation Pump
H	Valves In/Out for DHW
I	Electronic control unit

D.H.W. recirculation kit (optional)	
L	Connection for D.H.W. recirculation (optional)
M	D.H.W. recirculation pump (optional)

The MACS® module is an external unit that immediately produces D.H.W., using the heat energy stored in the Buffer thanks to the stainless steel plate exchanger, granting safety and comfort with the possibility to regulate outlet temperature. With the new electronic regulation system, the management of the temperature on the DHW side is guaranteed and maintained in an optimal manner and with immediate response times from the electronic control unit on the module.

FOR DHW FLOW RATE CHARTS REFER TO HYDRONIC SECTION - ELECTRONIC MACS® MODULE