

PUFFERMAS® 2 CTS

HEATING WATER BUFFER TANK WITH STRATIFICATION DEVICE, 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.

D.H.W. HEAT EXCHANGER

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

HEATING WATER HEAT EXCHANGER

Nr. 1 fixed heat exchanger and CTS® stratificator system, 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 calorifier with similar capacity because hot water is stored at a higher temperature than DHW.

Puffermas 2 CTS® is characterized by multiple thermal stratification system based on the combination of Cordivari Labyrinth spreader for returning

heating water (both from heating installation and from MACS® DHW station) with a new stratification device that conveys in the upper part of the tank the heated water up by the lower fixed exchanger. This combination ensures a perfect natural stratification inside the tank with no valve or additional external device.

The lower fixed exchanger can be connected with a solar system. Being positioned at the bottom lower part of the buffer tank and with very small footprint, it increases the volume available for the storage.

INSULATION

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



Dismountable insulation



PUFFERMAS® 2 CTS VB HARD FOAM INSULATION

Model	MACS® Module	Art. Nr.	Heat exchanger surface [m²]	ENERGY EFFICIENCY CLASS
500	70	3251162316503	1,9	C
600		3251162316504	2,1	C
800		3251162316505	2,5	B
1000		3251162316506	3,1	C
1500		3251162316507	3,8	C
1000	120	3251162316508	3,1	C
1500		3251162316509	3,8	C

Model	MACS® Module	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	70	37	680
600		37	800
800		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

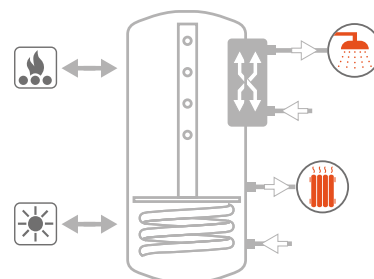
Art. Nr.	Connection
5006170001001	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)	



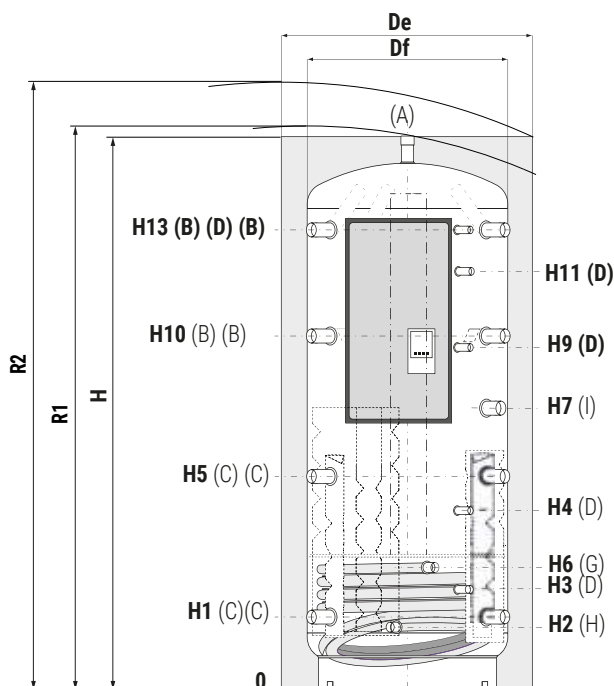
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MODULE FOR IMMEDIATE D.H.W. PRODUCTION

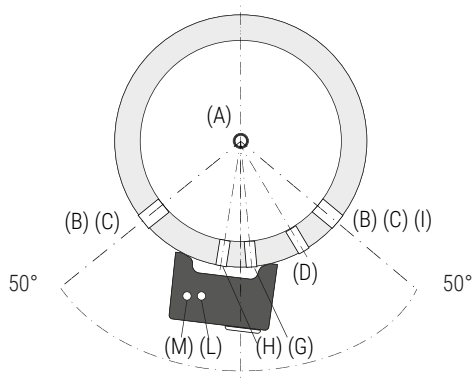
STORAGE		FIXED HEAT EXCHANGER		HEAT EXCHANGER STAINLESS STEEL PLATES (MACS®)		DHW HARDNESS
P _{max}	T _{max}	P _{max}	T _{max}	P _{max}	T _{max}	F _{max}
4 bar	99 °C	12 bar	110 °C	10 bar	99 °C	30 °f



See TECHNICAL SUPPORT chapter
for example of installation

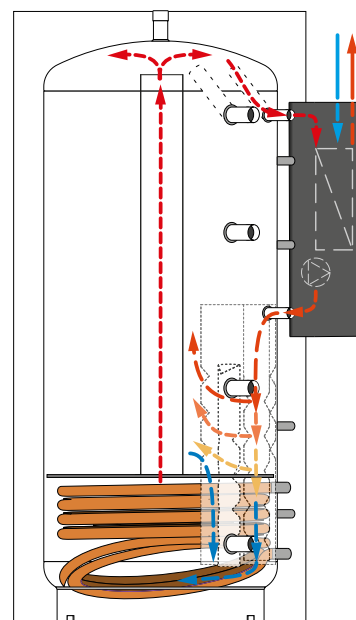


A	Heating delivery/from generator/Air purge G 1" 1/2 F
B	Heating delivery/from generator G 1" 1/2 F
C	Heating return/to generator G 1" 1/2 F
D	Instrumentation G 1/2" F
G	Fixed heat exchanger inlet G 1" F
H	Fixed heat exchanger outlet G 1" F
I	Connection for electric immersion heater G 1" 1/2 F
L	Domestic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



SUITABLE FOR SOLAR THERMAL SYSTEMS

THE ILLUSTRATION UNDERLINES THE
STRATIFICATION PROCESS (FROM TOP
TO BOTTOM) THAT ALLOWS TO HAVE ALL
NEEDED ENERGY RAPIDLY AVAILABLE



Dismountable
insulation

Model	Volume [lt]	De	Df	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13
[mm]																			
500	478	750	650	1619	//	1785	247	215	360	533	629	425	870	//	1025	1011	1130	//	1343
600	560	750	650	1870	//	2015	247	215	360	582	695	425	970	//	1200	1144	1485	//	1593
800	805	940	790	1840	1880	2067	265	233	378	584	690	443	918	//	1115	1115	1442	//	1541
1000	946	940	790	2130	2165	2329	265	233	384	656	787	443	1145	//	1388	1309	1588	//	1831
1500	1454	1100	950	2250	//	2505	313	281	432	736	845	491	1236	//	1396	1377	1783	//	1909

Net volume data according to EN 15332 available on product label.