

PUFFERMAS® 3 CTS PDC

BUFFER TANKS FOR HEATING WATER WITH STRATIFICATION DEVICE, FIXED COILS AND MACS® MODULE FOR INSTANTANEOUS PRODUCTION OF DHW



APPLICATION

Stratified thermal storage of technical water with instantaneous production of domestic hot water (DHW) on high flow rates and efficiencies. Improvement of solar circuit efficiency, with low temperature primary source such as heat pump and auxiliary solar thermal source with the "Top to Bottom" CTS Stratification Device.

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 316L stainless steel plate heat exchanger for instantaneous production of domestic hot water (DHW).

HEATING WATER HEAT EXCHANGER

The tank contains two fixed heat exchangers in mild steel: an upper one to integrate a further thermal source and a lower one, with CTS Stratification Device for the maximum exploitation of the solar thermal energy.

TECHNICAL DESCRIPTION

PUFFERMAS® 3 CTS PDC, specifically designed for the storage of heat produced by low temperature sources such as heat pumps, allows a rapid DHW production using a thermal storage tank, with the following advantages:

- 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.

PUFFERMAS® 3 CTS PDC can integrate a third heat source in addition to Solar and Heat Pump.

INSULATION

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

MACS® module 180 HP: 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.



IMMEDIATE
DHW
PRODUCTION

NEW




PATENTED

Electronic MACS®
module


PUFFERMAS® 3 CTS VB




| Model | MACS® module model | HARD FOAM INSULATION Art. Nr. | SLB heat exchanger model / plates nr. | HEAT EXCHANGER SURFACE | | ENERGY EFFICIENCY CLASS  |
|-------|-----------------------|-------------------------------------|--|------------------------|-------|--|
| | | | | Upper | Lower | |
| | | | | [m²] | | |
| 800 | | 3251162316572 | | 1,8 | 2,5 | B |
| 1000 | 180 HP | 3251162316573 | SLB40 / 60 | 2,5 | 3,1 | C |
| 1500 | | 3251162316574 | | 2,8 | 3,8 | C |

ACCESSORIES


Thermometer

| | |
|---------------|---|
| Art. Nr. |  |
| 5032240000107 | |
| 5 units box | |

Recirculation kit

| | |
|-------------------------|--|
| Art. Nr. |  |
| 5221000000073 | |
| DHW recirculation group | |

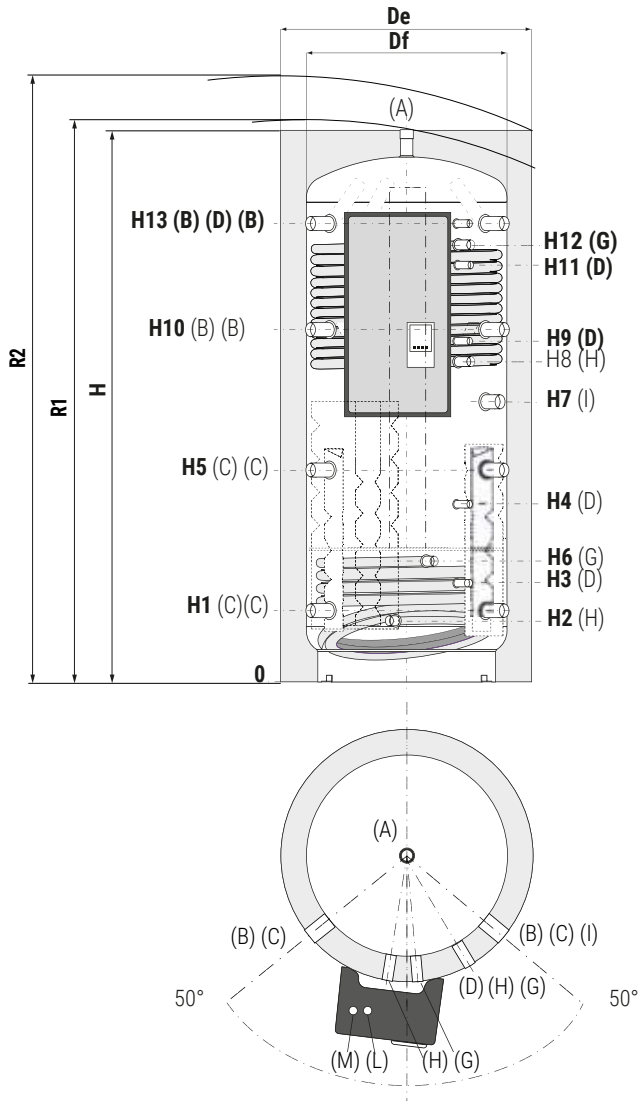
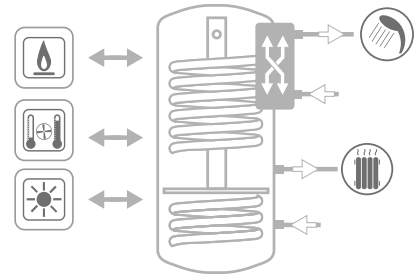
Buffer tanks connecting kit

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

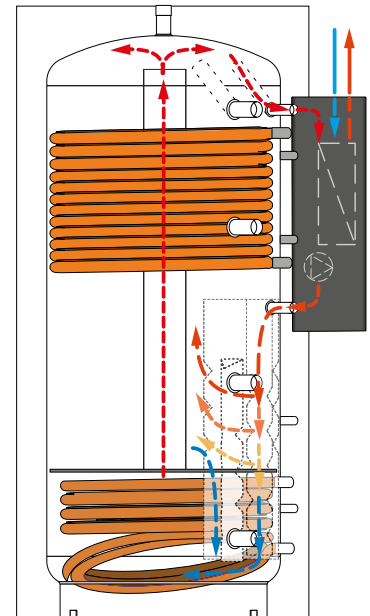
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| STORAGE | | FIXED HEAT EXCHANGER | | HEAT EXCHANGER STAINLESS STEEL PLATES (MACS®) | | DHW HARDNESS |
|---------|-------|----------------------|--------|---|-------|--------------|
| Pmax | Tmax | Pmax | Tmax | Pmax | Tmax | F max |
| 3 bar | 99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



| | |
|----------|--|
| 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 120) |



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] | | | | | | | | | | | | | | | | | |
| 800 | 805 | 940 | 790 | 1840 | 1880 | 2067 | 265 | 233 | 378 | 584 | 690 | 443 | 918 | 1003 | 1115 | 1115 | 1442 | 1347 | 1541 |
| 1000 | 946 | 940 | 790 | 2130 | 2165 | 2329 | 265 | 233 | 384 | 656 | 787 | 443 | 1145 | 1188 | 1388 | 1309 | 1588 | 1661 | 1831 |
| 1500 | 1454 | 1100 | 950 | 2250 | // | 2505 | 313 | 281 | 432 | 736 | 845 | 491 | 1236 | 1286 | 1396 | 1377 | 1783 | 1673 | 1909 |