

PUFFERMAS® 2 CTS

STORAGE BUFFER TANKS FOR HEATING WATER WITH STRATIFICATION DEVICE, 1 FIXED HEAT EXCHANGER AND MACS® D.H.W. STATION FOR INSTANTANEOUS PRODUCTION OF SANITARY WATER



APPLICATION

Storage of heating hot water with stratification device and D.H.W. immediate production with high flow rate.

MATERIAL

Mild steel construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.

D.H.W. HEAT EXCHANGER

Plate to plate stainless steel exchanger in external MACS® module for immediate D.H.W. production.

HEATING WATER HEAT EXCHANGER

1 mild steel fixed heat exchanger.

TECHNICAL DESCRIPTION

The immediate and fast production of D.H.W. granted by the outside system steel plate exchange allow 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 heating hot water is stored at an 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 water heated 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 allows the possibility of connecting 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.

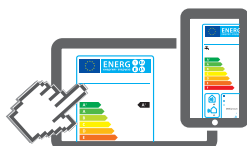


HARD FOAM INSULATION

PATENTED

PUFFERMAS® 2 CTS VB

| Model | MACS® module maximum output | HARD FOAM insulation Art. Nr. | SLB heat exchanger model / plates nr. | HEAT EXCHANGERS SURFACE [m²] | ENERGY EFFICIENCY CLASS  |
|-------------|--------------------------------|-------------------------------------|---|------------------------------------|--|
| 500 | 70 kW | 3251162316403 | SLB20 / 34 | 1,9 | C |
| 600 | | 3251162316404 | | 2,1 | C |
| 800 | | 3251162316405 | | 2,5 | C |
| 1000 | | 3251162316406 | | 3,1 | C |
| 1500 | | 3251162316407 | | 3,8 | C |
| 1000 | 120 kW | 3251162316408 | SLB40/ 40 | 3,1 | C |
| 1500 | | 3251162316409 | | 3,8 | C |



www.cordivari.com/erp

On line ErP label tool

(*)Data obtained under the following conditions:

- Primary water at 80°C
- DHW production from 10°C to 45°C.

| Model | DHW Station max output (*) [kW] | DHW Station max flow rate (*) [l/min] | Max DHW availability (10-45°C) with storage at 70°C [litres] |
|-------------|---------------------------------------|---|--|
| 500 | 70 kW | 30 | 511 |
| 600 | | 30 | 614 |
| 800 | | 30 | 983 |
| 1000 | | 30 | 1100 |
| 1500 | | 30 | 1680 |
| 1000 | 120 kW | 50 | 1503 |
| 1500 | | 50 | 2254 |

Accessories on request

Thermometer

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



Recirculation kit

| Art. Nr. |
|--|
| 5221000000054 |
| Control display + pump (for D.H.W.) |



Buffer tanks connecting kit

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



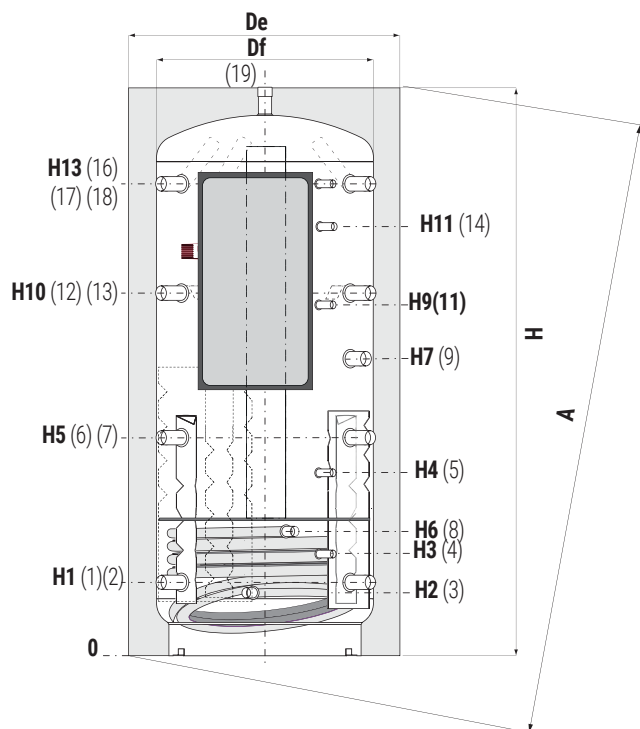
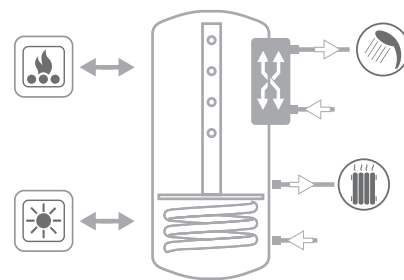
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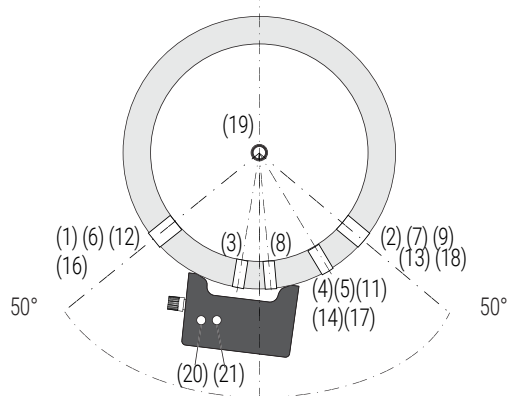
| STORAGE | | FIXED HEAT EXCHANGER | | STAINLESS STEEL PLATE HEAT EXCHANGER (MACS®) | | D.H.W. HARDNESS |
|---------|-------|----------------------|--------|--|-------|-----------------|
| Pmax | Tmax | Pmax | Tmax | Pmax | Tmax | F max |
| 3 bar | 99 °C | 12 bar | 110 °C | 6 bar | 99 °C | 30 °f |

CORDIVARI® Lab
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.

CORDIVARI Lab
TESTED
TÜV ECODESIGN
ASK ALWAYS FOR CERTIFIED LABORATORIES DATA RESULTS

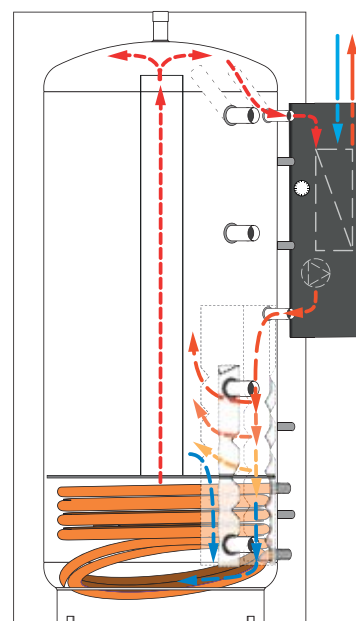


| | |
|-------------|--|
| 1-2-6-7 | Heating return/To Generator 1 1/2" Gas F |
| 3 | Lower heat exchanger outlet 1" Gas F |
| 4-5 | Connection for instrumentation 1/2" Gas F |
| 8 | Lower heat exchanger inlet 1" Gas F |
| 9 | Electrical immersion 1 1/2" Gas F |
| 11 | Connection for instrumentation 1/2" Gas F |
| 12-13-16-18 | Heating delivery/ Heating return 1 1/2" Gas F |
| 14-17 | Connection for instrumentation 1/2" Gas F |
| 19 | Heating delivery/Air purge 1 1/2" Gas F |
| 20 | Domestic cold water circuit inlet 3/4" Gas M (1" Gas M for models 120kW) |
| 21 | Domestic hot water circuit outlet 3/4" Gas M (1" Gas M for models 120kW) |



SUITABLE FOR THERMAL SOLAR SYSTEMS

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



| Model | Volume [lt] | De | H | A | H1 | H2 | H3 | H4 | H5 | H6 | H7 | H9 | H10 | H11 | H13 |
|-------------|-------------|------|------|------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| 500 | 478 | 750 | 1619 | 1784 | 247 | 215 | 360 | 533 | 629 | 425 | 870 | 1025 | 1011 | 1130 | 1343 |
| 600 | 560 | 750 | 1870 | 2015 | 247 | 215 | 360 | 582 | 695 | 425 | 970 | 1200 | 1144 | 1485 | 1593 |
| 800 | 805 | 940 | 1840 | 2066 | 265 | 233 | 378 | 584 | 690 | 443 | 918 | 1115 | 1115 | 1442 | 1541 |
| 1000 | 946 | 940 | 2130 | 2328 | 265 | 233 | 384 | 656 | 787 | 443 | 1145 | 1388 | 1309 | 1588 | 1831 |
| 1500 | 1454 | 1100 | 2250 | 2504 | 313 | 281 | 432 | 736 | 845 | 491 | 1236 | 1396 | 1377 | 1783 | 1909 |