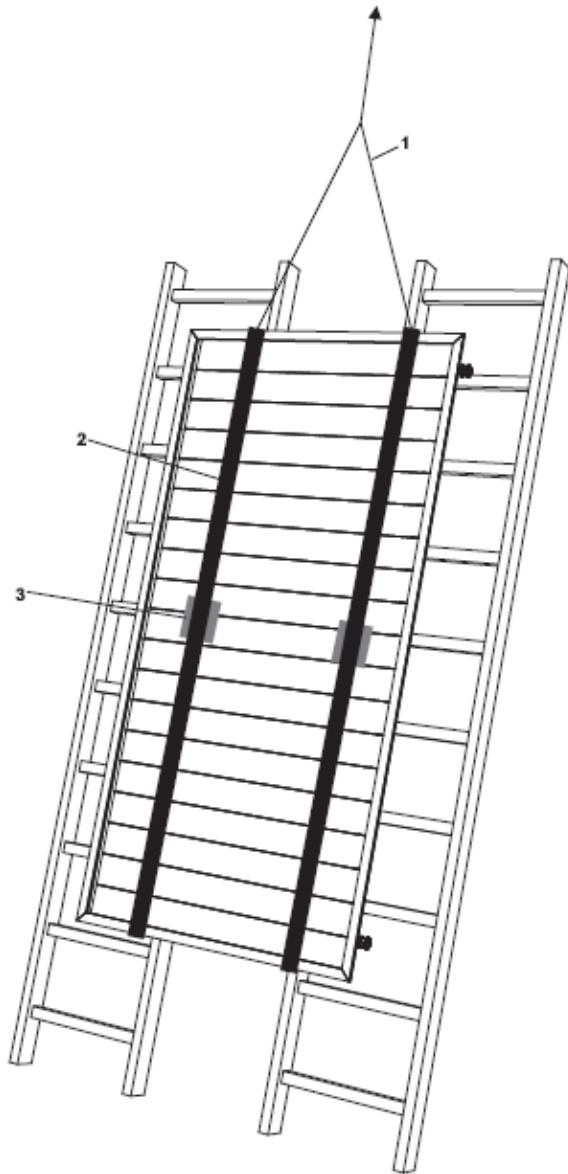




INSTALLATION

Moving the collectors



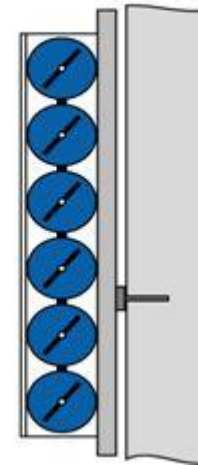
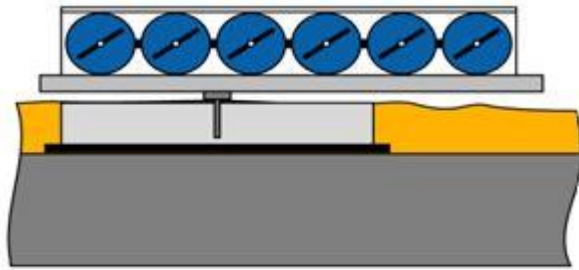
- 1 Rope
- 2 belts
- 3 Rubber protection for the glass

Use caution in order to avoid broking the collector's glass

Mounting collectors on flat roofs



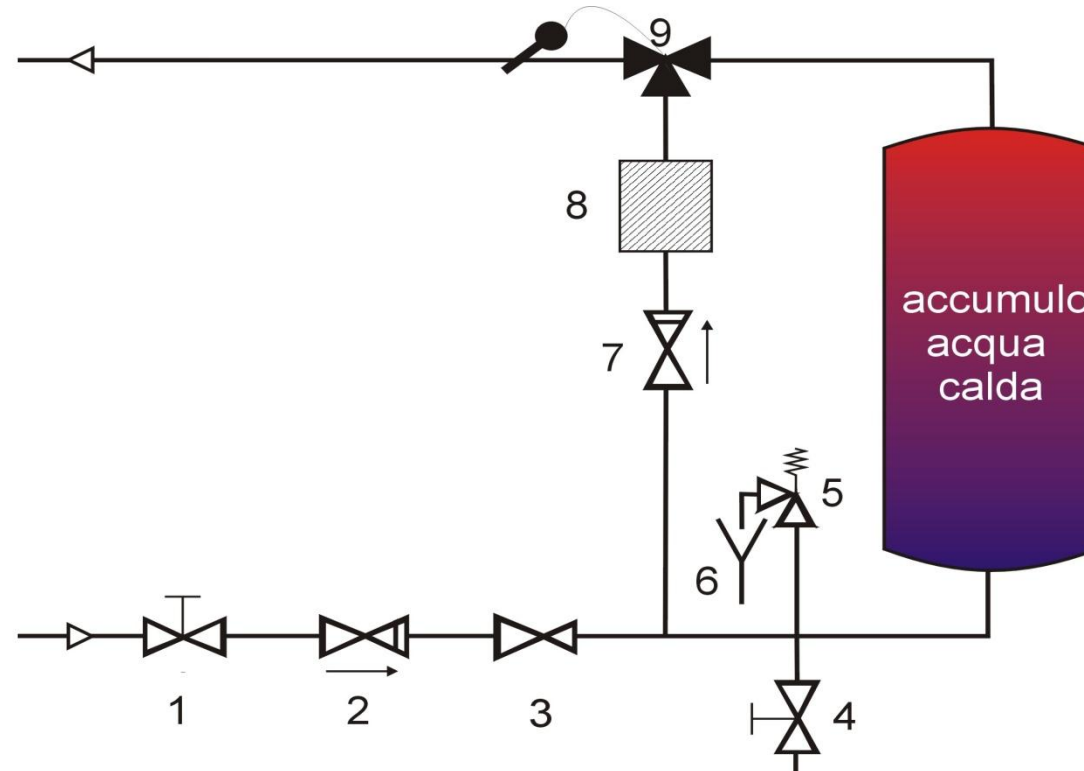
Mounting vacuum tube collectors



Lightning protection



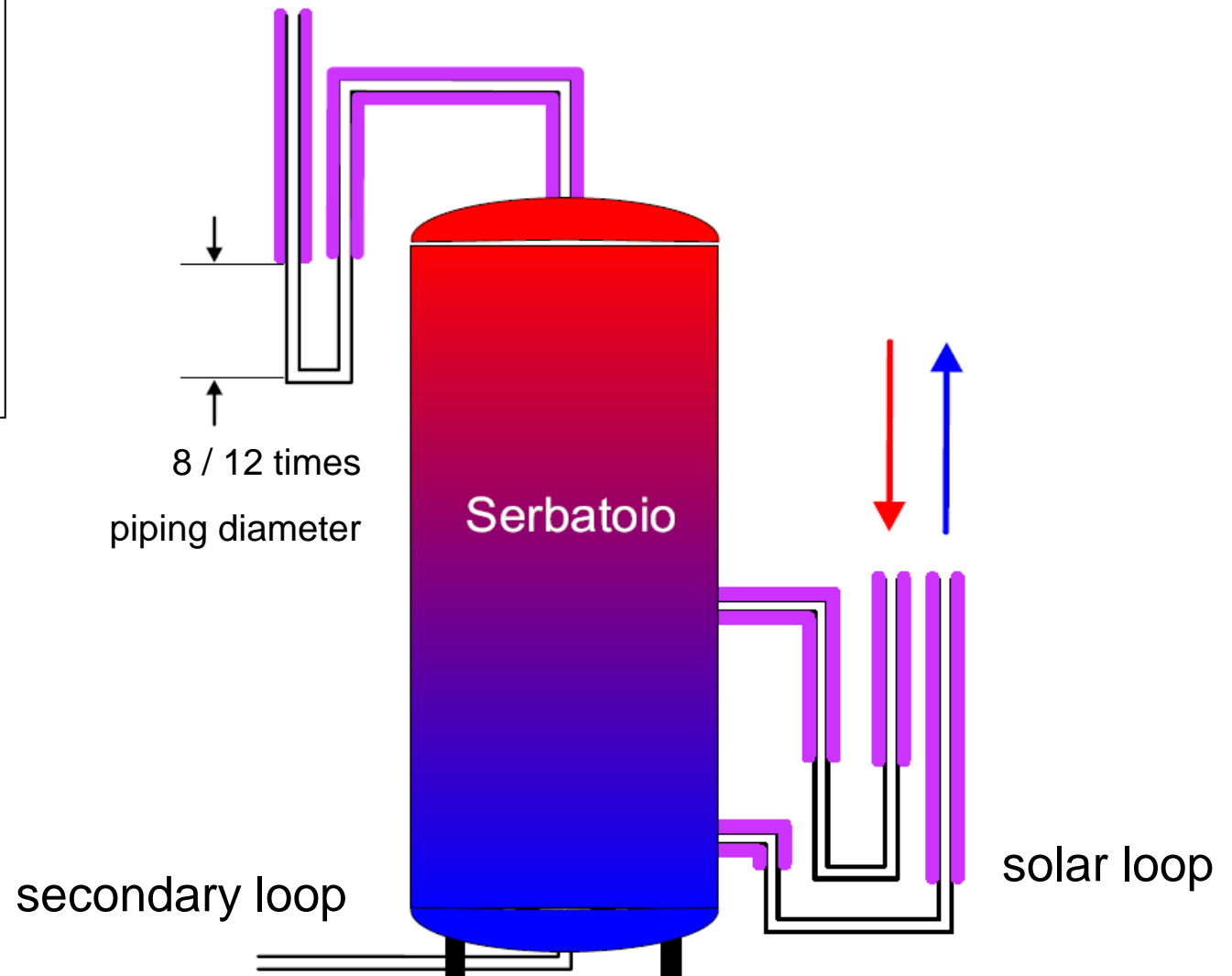
Connecting the tank to the hydraulic loop



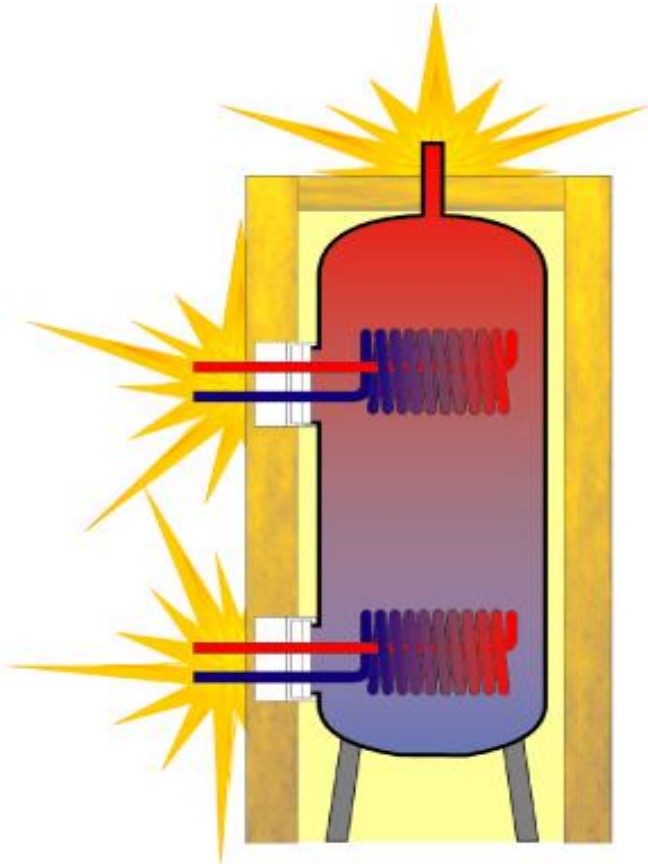
- 1 shut-off valve
- 2,7 non return valves
- 4 drain valve
- 5 security valve
- 8 filter
- 9 mixing valve

Syphons

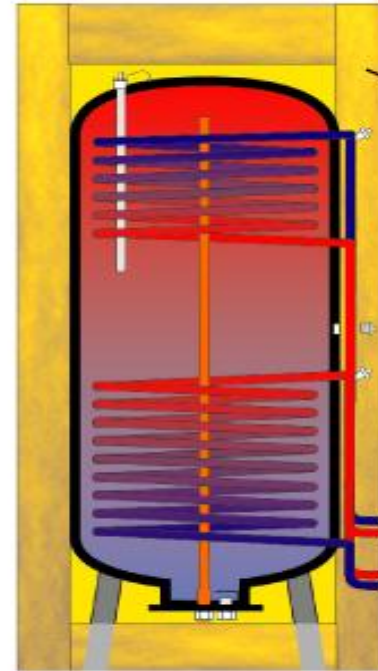
In order to avoid energy losses due to natural circulation, syphons should be used.



Tank insulation

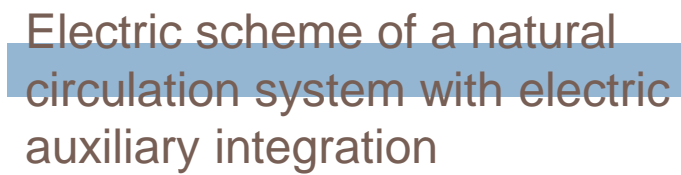


Conventional tank: ΔT (24 h): 30 °C



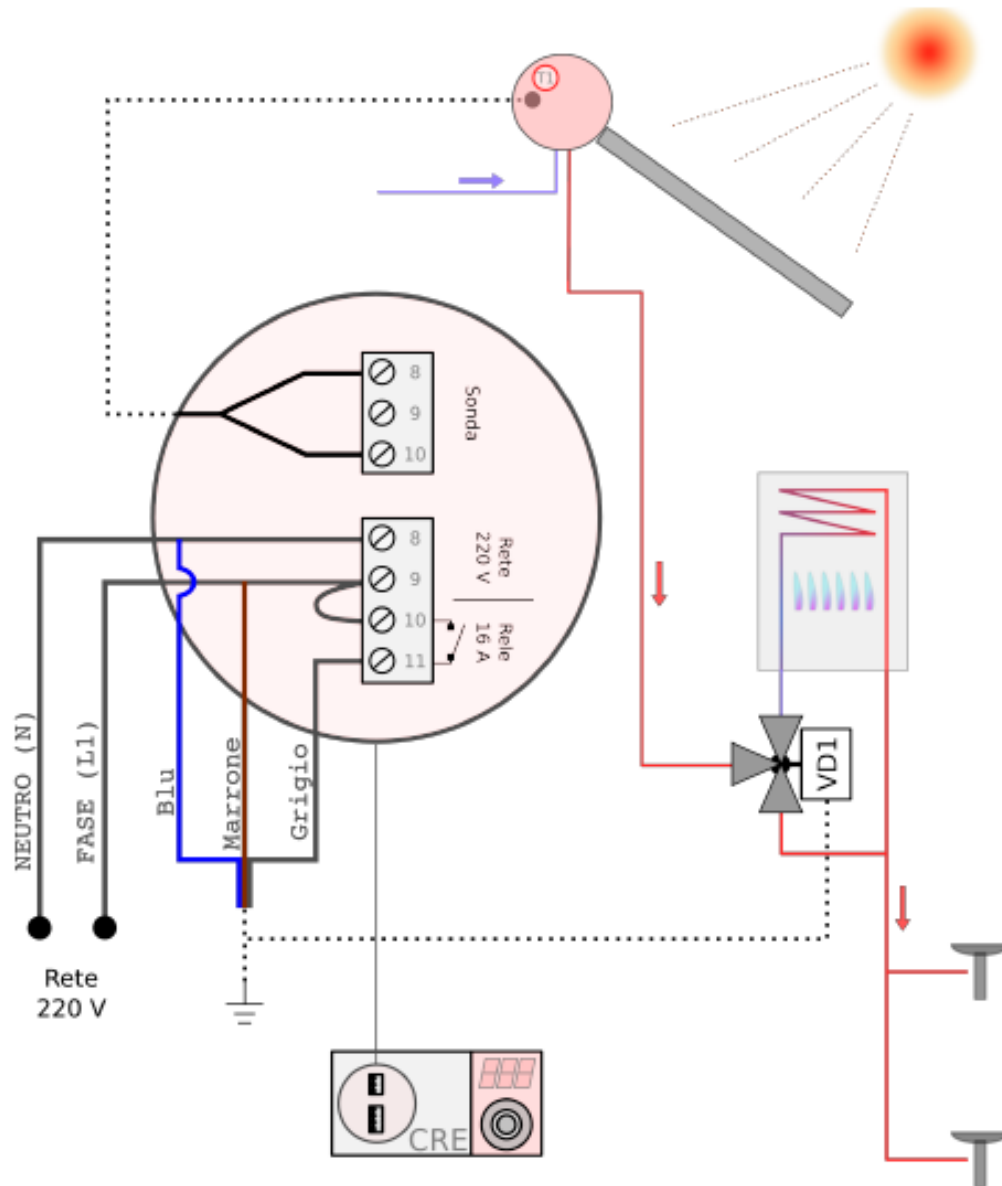
Solar tank: ΔT (24 h): 5 °C

Figure 1



Control unit

Electric scheme of a natural circulation system with gas auxiliary integration



legenda:
 CRE Controllo remoto temperatura
 T1 sonda boiler solare
 VD1 Valvola deviatrice (ACS)

Solar loop insulation



External piping



Checklist for design and installation

- Are collectors well fixed, in order to resist to wind?
- Is the collector field accessible for maintenance?
- Is a lightning protection installed?
- Has piping expansion been considered?
- Is external piping protected against UV radiation, rain and animals?
- Has the roof been checked for impermeability?
- Has a mixing valve been installed after the solar tank?
- Is an instruction manual available for the user?

Only for forced circulation systems:

- Does the tank fit inside the technical room and are doors large enough?
- Have the proper pressures been chosen?
- Has the sensor in the collector been installed correctly and not in a shady place?
- Is the temperature sensor protected against overvoltage?
- Has the pump been installed in the return loop (cold)?