

# Solar systems

## Natural circulation

# SOLAR SYSTEMS



5 YEARS WARRANTY

## Natural circulation

### SIMPLICITY EFFICIENCY AND ENERGY CONSERVATION

The natural circulation solar panels function following a simple principle: optimize the capture of solar energy that reaches the Earth's surface using it to produce hot water by convective heat transfer, which allows the movement within the exchanger-panel heat system. Because of its high-efficiency, it ensures the functioning even at low temperatures.

The natural circulation solar systems consist of pre-assembled components for quick and safe installation. It isn't necessary the installation of a pump or electronic controls.

The panels can be connected in parallel to provide large scale hot water

#### Main destination:

Small residential users.

#### The systems are pre-assembled and consist of:

Solar copper plate collector with TINO X selector that allows high power consumption and minimal emissions.

The plate is welded to rectangular copper tubes containing liquid for the transfer of heat added to the system with antifreeze. The containment tank in aluminium gives to the panel strength and stability.

Reflective Tempered safety glass with micro-prism.

The system has 200 litre tank in enamelled steel, dual chamber, insulated with high density polyurethane foam and equipped with a magnesium anode and electrical resistance.

Mounting systems for installation on pitched roofs or flat surfaces

#### System Advantages:

Easy installation and fast integration to the boiler.

Easy plant: getting the system with hydraulic fittings.

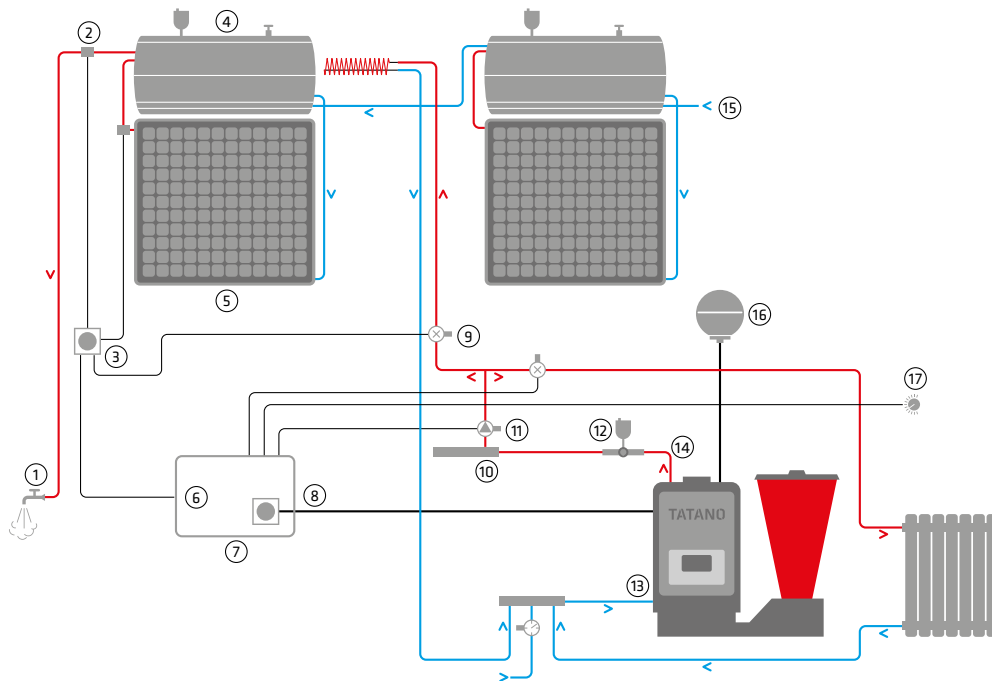
Easy operation: no needed installation of a circulator and electronic controls.

Reduced maintenance time.

Save up to 70% of water heating energy needs.

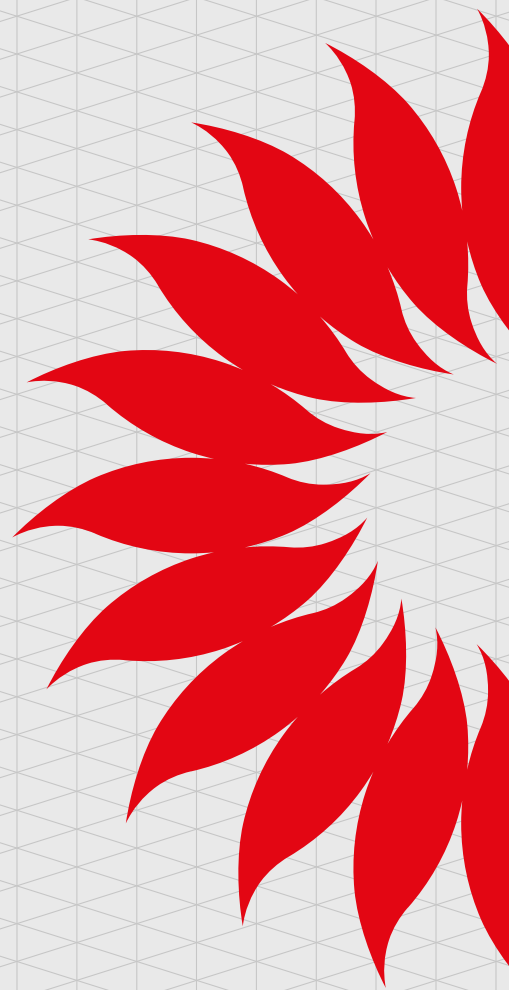
Low thermal emission, high efficiency with low exposure to sunlight.

# INSTALLATION DRAWINGS



**Multiple natural circulation  
solar systems integrated  
with a biomass boiler**

- |  |                          |
|--|--------------------------|
| 1 Hot water output                                 | 9 Motorized valve        |
| 2 Probe  | 10 Collector             |
| 3 Solar panel                                      | 11 Pump                  |
| 4 Tank   | 12 Vent valve            |
| 5 Collector  | 13 Return                |
| 6 Contactor panel                                  | 14 Flow                  |
| 7 Electronic panel with smoke<br>probe and igniter | 15 Cold water input      |
| 8 Power 220 V                                      | 16 Closed expansion tank |
|  | 17 Room thermostat       |



AZIENDA CERTIFICATA UNI EN ISO 14001

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