

System Diagram

Technical

Sunnovations Geyser Pump

This is the unique passive pump that creates circulation of the heat transfer fluid, powering the geyser pumping action that pushes the hot fluid to an elevated level. The difference in fluid levels creates a circulation (fluid gravity balance) in the solar loop (through the heat exchanger). The flow rate and operating temperature are adaptive to the insolation.

Overflow Reservoir

Another feature unique to our system, it acts as the overheat protection: if the water in the storage tank is already fully heated, the fluid in the collectors is purged into this reservoir, preventing overheating (and overpressure) in the system as well as glycol breakdown.

Solar Collector Panels

We use standard, glazed flat plate collectors with a "harp" flow pattern. The risers in the collectors function as a part of the pumping mechanism. SRCC OG100-certified collectors should be used.

Piping

Insulated, oxygen-barrier PEX tubing carries the hot fluid to the water storage tank and cooled fluid to the collectors. Our system stays well within temperature and pressure limits for PEX, making it safe to use this easy-to-install and cost-effective tubing.

Water Storage Tank

Our system requires a tank (80 gallon in a standard configuration) with an internal heat exchanger and dual bottom ports and works with a number of electric and gas-backup models. A simple storage tank with an internal heat exchanger can also be linked to an existing 2nd tank with regular power source.



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a revolution in solar hot water

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