

Solar Pool Heating with Gobi Collectors



Municipal Pool

- Seasonal and Year-Round
- Outdoor and Indoor
- Public and Private
- Drainback and Closed-Loop



High School Pool



Marine Corps Pool



Private Pool



Municipal Pool

Installations and photographs by
Independent Power/Sunpower Construction/A.Ryan, Nevada
In Hot Water, Utah
Partnership Witte/Tuttle/Lankheet/Orawiec, Michigan



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Glass covered, aluminum framed, insulated collectors with high performance absorber coating have been installed on public and private pools since 1976. They are protected against the elements and can therefore heat seasonal pools in windy and cool areas, or heat indoor pools year-round.

Open-Loop Drainback Efficient in Windy and Cool Areas

- Attractive skylight looks of the Gobi
- Certified for high performance
- Need fewer Gobi for less roof area
- Protected against wind and cold air
- Heat when it really counts
- Proven since 1976
- Public and private pools

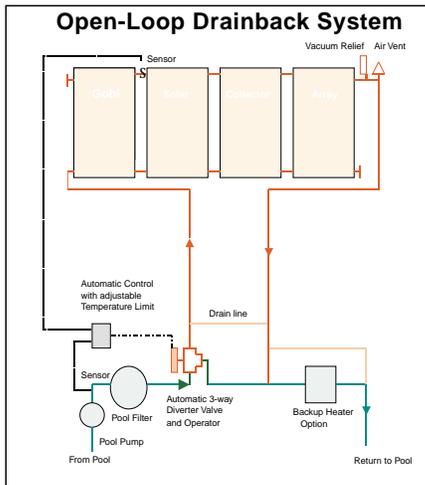
Highly efficient design with Gobi collectors for protection against wind and cold air and excellent solar collection throughout the year in mild areas. In this design, an adjustable solar control and sensors activate an electric valve to divert pool water through the Gobi collectors, or bypass them depending on temperature setting and available solar radiation.

Installation consists of mounting the Gobi collectors well above the pool and equipment to allow automatic draining of the collectors when the pool pump shuts off or in the bypass no-heating mode. Supply and return piping are installed on Tees between filter and before conventional heater if any.



LX220/2TX
Differential
Temperature
Control and
Valve and
Operator

Because of the protected insulated construction of the Gobi and the higher temperatures achieved, supply and return piping need to be copper, which can tie into the CPVC piping typically used for pool filter lines. Design flow rate will be also lower, about 1.5 gpm per Gobi 410, for reduced pipe size and pumping power.



Closed-Loop Glycol System The Most Universal and Durable

- Freeze protected anywhere
- No boilout with 150 psi rated system
- Protected from harmful chemicals
- Use in any climate
- Seasonal or yearround heating
- Heat indoor or outdoor pools
- Dual purpose heating capability

Use where the pool water cannot easily drain, such as ground mounting, or the collectors are to be mounted on their sides, or several stories up with difficult lift. Also use for protection in severe climates in seasonal and all-year heating.

The Gobi collectors are filled with a non-toxic glycol-water mix in a closed-loop design for protection against freezing in all areas. Heat exchangers, of heavy duty construction, transfer the heat collected in the Gobi to the pool with minimal loss of efficiency and for permanent protection from pool chemicals and hard water deposits.

An LX 220/B differential control with collector and pool temperature sensors automatically operates a small pump to circulate the glycol-water mix through the heat exchanger. On pool side of the efficient counter-flow heat exchanger, the filter pump is set to operate during solar hours to remove the heat from the heat exchanger into the pool. No three-way valve as in the drain-back version is required here.



Counter-flow heat exchanger,
cupronickel tubes (pool water),
brass shell (collector loop)

Additional equipment assures the safe operation of the system in hot and cold: an expansion tank allows the fluid to expand as it heats up during operation or no-flow. A pressure relief valve is a safety item, a pressure gauge is a useful diagnostic tool.

