



# AESOP ENERGY OPTIONS

Alternative Energy  
Solutions Of the Piedmont

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## HI-Deluxe

### Swimming Pool Solar Heating Systems

**HI-Deluxe** is the most modern, high efficiency solar collector panel on the market. It is made from a special polypropylene compound. You can use HI-Deluxe to heat any pool or spa. Panels are 4 feet wide and 8, 10 or 12 feet long. Our exclusive EZ Mount makes HI-Deluxe the easiest to install.

**HI-Deluxe Solar System Kits** are complete swimming pool solar heating systems. You can select either manual or automatic controls.

With **HI-Deluxe** you have a choice of two control systems. A manual control where you turn the system on or off by turning the handle on a three-port control valve, or a fully automatic electronic control system.

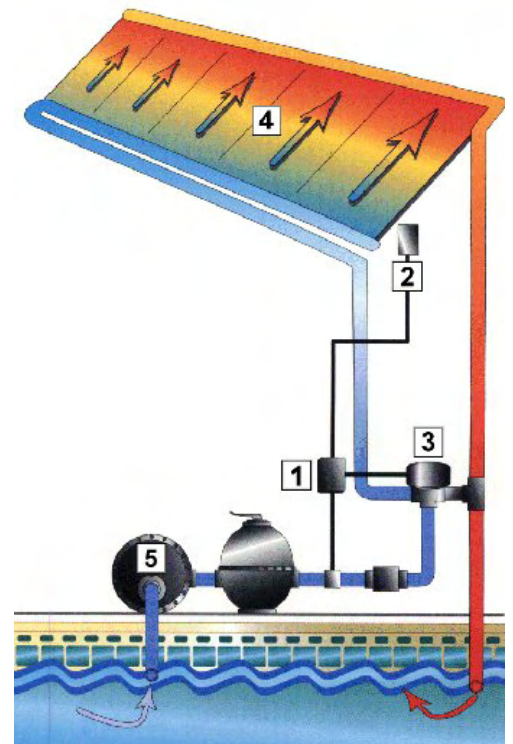
With the automatic system you simply set the desired temperature on your control panel (1) and the system does the rest.

When the solar sensor (2) finds that there is enough solar energy to heat your pool and your pool is colder than you desire, water is automatically sent to your solar collectors (4) by the valve (3). Bright sunshine is not needed to heat your pool. The solar sensor will turn on your solar system even on a hazy or cloudy day when it finds the right amount of solar energy.

Your pool pump (5) sends pool water to the solar collectors. As the water flows through the many tubes in each solar collector the sun's energy heats it. The solar-heated water then flows back to your pool. This simple cycle continues until your pool reaches your desired temperature.

You can cool an overheated pool in warmer months by simply running the pool pump at night. Your control system will automatically switch to cooling your pool.

With a manual control the operation is the same except that you have to turn the handle on the valve to shut off the solar system in bad weather when your pump is running.



## **Hi-Deluxe** solar collectors are more efficient

When solar collectors are rated for efficiency they are tested with a wind speed of less than five miles per hour with the sun directly above the solar collector surface. In the real world the wind often blows at more than five miles per hour and the sun is directly above the collector surface for only an instant each day at solar noon. For the rest of the day the sun is at various angles to the surface. Therefore, the rating does not always predict the amount of the sun's energy the solar collector will actually absorb while it is heating your pool. **Hi-Deluxe** will send more heat to your pool at any hour of the day because they are designed to make better use of the available solar energy.

### **Tube-on Fin Solar Collector**

**Hi-Deluxe** solar collectors use the proven tube-on-fin solar collector that works all day to absorb more of the available solar energy and send more heat to your pool.

The curved tube surface exposed to the sun's energy presents a more constant surface area to the sun during the day as the sun's angle to the solar collector surface changes than does a flat or nearly flat surface. The space between the tubes forms a heat trap. Some of the solar energy falling on the fins and tubes re-radiates to the sides of the tubes and forms a high temperature area that is protected from the wind passing over the surface. This increases the amount of solar energy absorbed by the tubes, sending more heat into the pool water. That gives **Hi-Deluxe** great advantage over solar collectors with separate exposed tubes where the wind passing between them wipes the warm air from their surfaces, cooling them

