# Freedom Greenhouse



The solar powered *Freedom Greenhouse* line is a revolution in hobby greenhouse growing.

Through innovative ventilation designs, automatic watering benches, and solar panels,

Maine Garden Products has created the world's first *self-contained* and *self-tending* hobby greenhouse.

#### Ventilation





Temperature regulation through natural ventilation is achieved by literally "raising the roof" off the gable ends on one side of the greenhouse. Ventilation occurs through *Natural Convection*, which is the rising of warmer air above cooler air. This allows the warmer air to escape through the roof peak and cooler air to be drawn in through the lower section of the roof opening. *Natural Convection* ventilation is extremely effective and requires no external power.

The *powered* model includes a solar panel, battery, and 12 volt motor. The *powered* model is automatically controlled by a high quality commercial greenhouse thermostat. The *manual* model consists of an arm that is moved manually to open and close the roof.

## Solar Powered



The Freedom Greenhouse is 100% solar powered and self-contained. There is no additional electricity required for ventilation or irrigation systems.

The roof opening gear motor and irrigation systems are powered by a 12 volt battery that is charged by the included solar panel.

The 12 volt charging system includes a battery, a 5 or 15 watt solar panel, and a controller for battery regulation and optimizing charge rates.

The charging system is guaranteed to never over charge the battery. Full time desulphation pulses safely extend the life and performance of the battery.

### **Automatic Irrigation Systems**

Automatic irrigation is achieved through the option of either a *drip tube system*, or an automatic *flood bench* system.

**Drip tube systems** work by transferring water through a pump in the reservoir up to your plants through small tubes.

*Flood benches* are filled to a pre-set water depth thru the use of 12 volt pump and timer. Once filled, the bench then drains the water back into the same reservoir to be reused.

Both automatic watering systems offered are fed with water from a solar powered 12v pump and customer supplied water reservoir.



## **Bench & Irrigation Options**

Three types of benches and one type of drip tube system are available for the *Freedom Greenhouses*. We offer an automatic flood bench, a bench with a cedar slat top, and a bench with a wire channel mesh top. The *flood bench* and the *drip tube system* are both automatic irrigation systems, and are regulated by timers. Benches and drip tube systems are available for one or both sides of 8' wide greenhouses.



Flood Bench System



Cedar Slat Bench



**Drip Tube System** 



Wire Mesh Bench

## **Options**



**Glass Option** 



Manual Roof Opening



Full Height Glazing

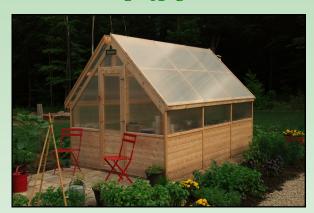


Wood Stain

#### Sizes



8' x 8'



 $8' \times 12^{-7}$ 



8'x 8' & 8'x 12' Greenshed

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