

Product Announcement

# MatrixAir™ Delta

A Modular Roof Mounted Solar Heating System  
Patent-pending



**Following the commercial success** of its façade mounted transpired collector, Matrix Energy introduces the **Delta**, a modular roof mounted solar fresh air heating system.

The **Delta** is the ideal solution where our conventional wall mounted solar air heating system is not practical.

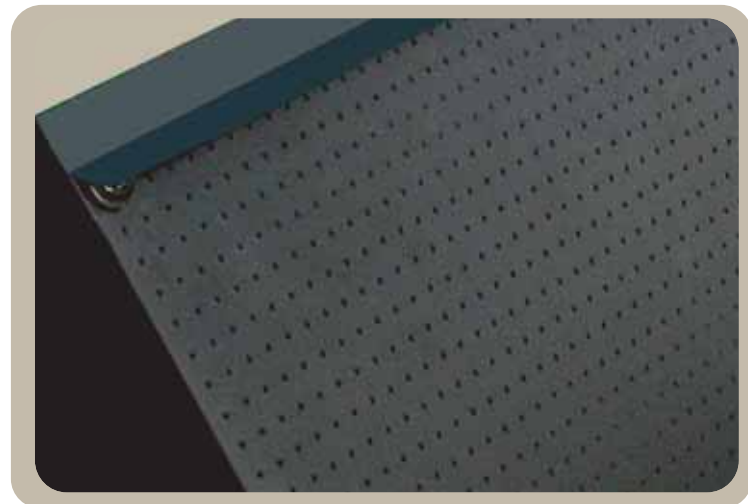
The integrated solar collector and air duct make installations easy in a number of configurations.

### **MatrixAir Delta™ offers:**

- Significant energy savings from two stage heat process
- Air filtration
- Modular design

### **MatrixAir Delta™ benefits:**

- Two stage solar heating process
- Air filtration
- Maintenance free operation
- Ease of expansion
- Flexible installation options



MatrixAir™ Delta



## Features

The MatrixAir™ Delta incorporates a dual heating process using both transpired and back-pass solar collector technology that is optimized for solar gain and ease of installation.

Another feature is the combination of an air collection space and insulated air plenum that is integrated behind the collector itself creating a fully modular unit that may be joined in series and parallel as required for increased total air flow and temperature rise.

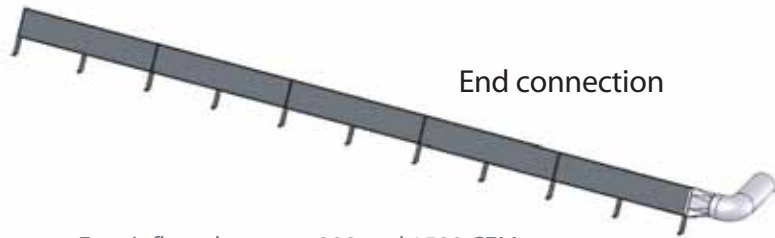
Research has demonstrated that a profiled absorber surface may be subject to heat losses that are exacerbated with increasing profile depth at low flow rates or in windy conditions. MatrixAir™ Delta uses a flat absorber plate in order to expose the full, uniform absorber area to direct sunlight at all incident angles regardless of the time of day.

Yet another feature is the use of stirring strips within the collector itself. In the area close to the back of the absorber plate air velocity is very low and can form a comparably warm but stagnant layer of hot air that must be made turbulent in order to be captured. The Delta features internal stirring strips between the absorber and the back plate in order to create air turbulence thereby increasing collector efficiency and temperature rise.



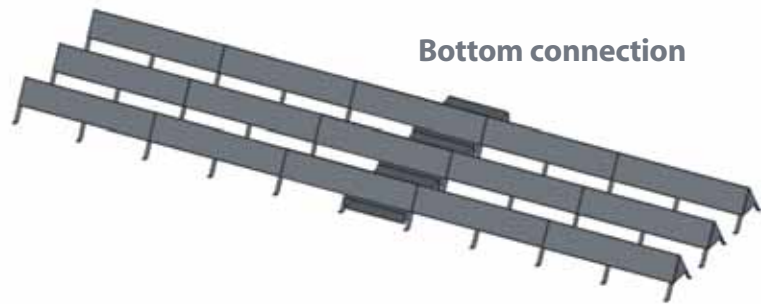
- Dimensions: 305.5 L x 84.2 H x 112.2 W (cm)
- Weight: 44.0 kg
- CFM per module: 250
- CFM per square foot of roof area: 4-5
- \* Energy output per collector: 4 GJ/yr

## Connection Methods\*



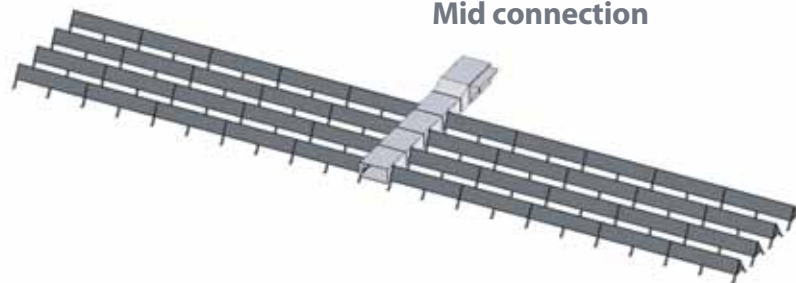
End connection

- For air flows between 200 and 1500 CFM
- Designed for arrays of 1 - 6 MatrixAir™ Delta modules



Bottom connection

- For air flows between 1500 and 5000 CFM
- Designed for arrays of 6 - 20 MatrixAir™ Delta modules



Mid connection

- For air flows between 5000 and 12500 CFM
- Designed for arrays of 20 - 50 MatrixAir™ Delta modules

\* All connection methods may be combined in order to produce any required air volume.

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