

Matrix Energy will be presenting its latest modular Roof Mounted Solar Heating System at the ASES National Solar Conference 2009

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Category: [Energy & Environment](#)

Press release from: [Matrix Energy Inc.](#)



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 due to poor orientation, insufficient wall area, local bylaws, or other obstacles. The integrated solar collector and air duct make installations easy in a number of configurations.

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 collector and plenum 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 boundary layer 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.

The low aspect and design of the collector reduces wind loading while allowing tight spacing of the modules. The user specified Bottom, End or Mid-connection of the rows of Delta collectors to the duct transporting the heated air to the HVAC enables the Delta system to easily accommodate most roof layouts using mechanical, ballasted and/or guy-wires.

Dimensions: 305.5 W x 84.2 H x 61 W (cm)

Weight: 78.3 kg

CFM per module: 200

CFM per square foot of roof area: 4 – 7

*Energy output per collector: 4 GJ/yr

About Matrix Energy Inc: Matrix Energy Inc. works with building professionals, designers, architects and engineers in designing, specifying, and supplying different products for the sustainable use of energy. Matrix provides solar integrated electric systems for new and existing buildings to help reduce total dependency on conventional energy sources.

About SOLAR 2009

Location: Buffalo Niagara Convention Center
Convention Center Plaza (153 Franklin Street)
Buffalo, NY 14202

Exhibit Hall Hours are:

Thursday, May 14, 10:00am to 5:00pm

Friday, May 15, 10:00am to 5:00pm

Saturday, May 16 (public day), 10:00am to 5:00pm

Matrix Energy Inc

Toll free: 1 866 630-5630

Tel: (514) 630-5630

Fax: (514) 426-9123

Email: marketing@matrixenergy.ca

[You can find this press release here](#)