Granby Hospital, Granby (Quebec) / Canada

Photo: Matrix Energy

Architectural integration of solar thermal energy systems
Hospitals require large amounts of fresh air. Having worked previously on other projects, Favreau et Blais architectes specified a MatrixAir™ TR (transpired) solar fresh air heating system for one section of this newly renovated hospital. A unique, aesthetically curved 82 m² solar collector was integrated into the building to provide 4800 CFM to the cafeteria below. The black perforated absorber finish was specifically chosen to provide a stark contrast to the building’s façade to highlight this energy saving building feature to the local community.
**Key figures**

- 82 m² solar collector
- Air volume supplied : 4800 CFM
- Energy Savings : 149.1 GJ
- Avoided CO2 emissions : 19.41 tonnes annually

**Solar collector /Heating system**

MatrixAir TR (Transpired) solar collector

This transpired, solar fresh air heating system demonstrates operating efficiencies upwards of 70% with payback’s within five years on most new buildings. The perforated metal absorber is used to draw in heated fresh air off the surface of south-facing walls, where it is then distributed throughout the building as pre-heated ventilation air.

Photo: Matrix Energy
Built/Completion: 2010

Client: Centre hospitalier de Gra

Architect: Favreau et Blais architectes

Contractors: EBC inc. / AECOM Tecsuit Inc

Engineering: Teknika HBAs

Address/Location: 205, boulevard Leclerc Ouest Granby (Quebec) J2G 1T7

Type of project: Institution