



## ***Press Release***

*For immediate release*

*October 1, 2008*

Suggested title: MUROX BECOMES THE FIRST BUILDING DESIGNER-MANUFACTURER TO OFFER A FULLY INTEGRATED ENERGY-EFFICIENT SOLUTION

(BOUCHERVILLE, QC) – Murox, the business unit of Canam Group Inc. (TSX: CAM) that specializes in designing, manufacturing and installing high-performance building envelopes, has just set new standards in energy efficiency with the completion and commissioning of a new plant for Stageline Group in L'Assomption, Quebec. The building, which is the most energy-efficient industrial building ever built in Quebec, consumes 69.2% less energy than a similar building that complies with Model National Energy Code requirements and produces zero greenhouse gases.

The Stageline plant is the result of many years of research and development aimed at offering optimal and integrated business solutions for the construction of highly energy-efficient industrial and commercial buildings. Murox has achieved this objective by integrating several mechanical components with its high thermal efficiency building envelope in order to reduce the amount of energy needed for heating, cooling and lighting.

“Energy efficiency requires an integrated design that takes all building components into account,” explained Pierre Arcand, president of Murox. “We are the first North American manufacturer to offer a fully integrated approach. We built on our expertise in high thermal efficiency building envelopes and the availability of proven industrial technologies to develop an efficient and cost-effective turnkey business solution.”

In addition to designing, manufacturing and constructing the building, Murox ensured that Stageline obtained all the financial incentives that are available for high energy efficiency buildings. These grants, combined with the recurring energy savings, will allow Stageline to recover its additional investment in less than five years, regardless of foreseeable increases in energy costs.

### **Ideal conditions**

Speaking at the official inauguration of the Stageline plant, Marc Dutil, president and chief operating officer of Canam Group Inc., pointed out that current economic and environmental conditions are ideal for exponential growth in high efficiency buildings in the coming years. Citing an emerging environmental awareness, the ever increasing cost of energy, the existence of alternative technologies and the availability of financial incentives, Mr. Dutil explained that one of the remaining hurdles was the absence of a one-stop, integrated approach that would simplify the task of developers.

“Murox’s fully integrated solution makes energy efficiency accessible to building owners who otherwise would have abandoned their efforts, given the complex nature of the work involved,” explained Mr. Dutil. “Murox and Canam Group have spent considerable time and effort over the last few years, perfecting an optimized and cost-effective solution. Both companies look forward to pursuing their leading role in order to grow the number of construction starts of high energy efficiency buildings, thus helping to reduce the ecological footprint of buildings in their very own way.”

### **The framework: A high-performance building envelope**

The framework behind Murox’s fully integrated approach is a building envelope system composed of wall panels that are shop-assembled in ideal factory conditions.

Mechanical components selected by Murox for the Stageline plant include a large number of low-emissivity windows, high-performance lighting, a closed loop geothermal system, radiant floors, ventilated thermal panels and a heat recovery ventilation system. (See the appendix for more information on these components.)

Murox designs, manufactures and installs high-performance building systems for the commercial, industrial and institutional construction markets. Thanks to its unique technology of shop-assembled, load-bearing wall panels, Murox offers owners, developers and general contractors superior quality buildings in a design-build formula.

Canam Group is an industrial company operating 12 plants specialized in the design and fabrication of construction products and solutions. The company employs close to 3,000 people in Canada, the United States, Romania and India, and has partnerships with companies in Mexico, France, Saudi Arabia, the United Arab Emirates, Russia and China.

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## APPENDIX

### High thermal resistance building envelope

The framework behind Murox's fully integrated solution is a building envelope system composed of wall panels that are shop-assembled in ideal factory conditions, thus ensuring superior fabrication quality. An optimal use of insulating materials and thermal barriers allows for a uniform thermal resistance of R-20, which is certified by an independent laboratory. The interior wall facing at the Stageline plant is white in order to actively reflect light.

### Double-paned windows coated with low-emissivity film

Double-paned windows reduce heat loss and procure a greater insulating coefficient, which allows for the conservation of heat in winter and cool air in summer by eliminating direct contact with the exterior. The low-emissivity (Low-E) film helps to conserve heat and reduce infrared radiation without altering the natural light provided by the sun.

### Geothermal system

A closed loop geothermal system recovers heat and cold from within the earth in order to regulate building temperature. A pump draws heat from the top layer of the soil, which varies between 8 and 12° C, using a water-based solution. In winter, the solution is compressed to increase the temperature and the heat is transferred to the building to provide heating. In summer, the uncompressed solution is fed to the building to provide air conditioning.

- High-performance geothermal systems are on average 48% more efficient than the highest rated natural gas furnaces and 75% more efficient than the highest rated oil furnaces.
- A geothermal heat pump transfers three times more heat than the amount of energy it consumes.
- Geothermal systems are particularly well-adapted to commercial and industrial buildings. Architects enjoy greater design flexibility as it is no longer necessary to designate areas on the roof or grounds to install cooling towers, air exchange systems and other HVAC (heating, ventilation and air conditioning) equipment usually installed outdoors. A geothermal system also requires considerably less room indoors.

### Radiant floor

A water-based radiant floor system circulates hot water in tubing installed within the concrete floor slab in order to heat the building. Radiant flooring allows for a more effective distribution of heat and the increased comfort of occupants by eliminating the dry air that is characteristic of electric and combustion-based heating systems. Radiant flooring also constitutes a thermal reservoir that helps to reduce peaks in electric energy consumption.

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### **Ventilated thermal panels**

The Murox Ventilated Thermal Panel (VTP™) System collects solar heat which is used to preheat fresh air intake from the ventilation system. In winter, with optimal sunny conditions, the VTP™ system can increase the temperature of incoming air by 19° C.

### **Heat recovery ventilation system**

Ventilation units installed on the roof are equipped with heat reclaimers, in this case, heat wheels, that capture heat from exhaust air.

### **Optimized lighting system**

Particular attention was paid to the building's lighting system. A large number of windows and skylights were installed to maximize the use of natural lighting. The window and curtain walls along the building's facade are double-paned and coated with low-emissivity film.

The lighting system also features T5 fluorescent fixtures that are strategically placed along ceilings and walls to meet specific lighting needs during the fabrication process. This type of lighting requires much less energy and produces little heat and noise, which in turn decreases air conditioning needs and increases employee comfort. The lighting system is controlled by various sensors that detect movement and luminosity in order to adjust lighting as needed.

### **Control and monitoring system**

A computer-assisted control and monitoring system allows managers and designers to track the performance of mechanical and lighting systems, both on location and from a remote location via Internet, in order to ensure that energy efficiency remains optimal.

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