

# NET-ZERO COMMERCIAL GLASS GREENHOUSE

A STEP TOWARDS CARBON-NEUTRAL PRODUCTION

HARNOISGREENHOUSES.COM

The Vermax glass greenhouse designed to help growers achie By combining patented energy-e of-the-art environmental system as the most advanced glass Harnois is the only Canadian produce glass greenhouse stru an unmatched focus on quality to endure variable weather unparalleled durab Who better to underst than Canadian is a ground-breaking solution eve carbon-neutral production. If it is a second of the state of the second of the standard of the second of the market.

manufacturer to design and actures entirely in-house, with and performance. Engineered conditions, Vermax offers bility and reliability.

tand these challenges s themselves?

#### A TRUE TURNKEY SOLUTION FROM DESIGN TO COMPLETION.

At Harnois, we take a flexible, personalized approach to every project. Whether you need a research greenhouse or a large-scale agro-industrial facility, we customize solutions to your unique needs. As advisors and technology integrators, we work closely to ensure your greenhouse operates at peak efficiency, integrating advanced control systems with AI-driven micro-climate management for maximum predictability.









Sustainability lies at the heart of every commercial greenhouse solution we create. We design greenhouses and develop technologies that address today's needs while preparing for tomorrow's challenges. Our solutions minimize environmental impact while maximizing productivity, combining innovative technology with durable materials for long-lasting performance.

At Harnois, our mission is to enhance predictability, efficiency, and sustainability in agriculture, paving the way for a more resilient future.

#### **VERMAX GLASS GREENHOUSE**



SIZE: 13 ACRES / CULTURE: LETTUCE / CAPACITY: 3.5 MILLION KILOS PER YEAR / INVESTMENT: \$135 MILLION

# AIMING FOR NEARLY ZERO ENERGY BUILDING (NZEB)

The Vermax is designed with Nearly Zero Energy Building (NZEB) principles, combining passive design strategies and ground-breaking energy technologies to reduce consumption and maximize efficiency.

**SOLAR & GEOTHERMAL SYSTEMS** 

**HEAT STORAGE SYSTEM** 

FUEL CELL & ENERGY STORAGE SYSTEMS

GREENHOUSE GEOMETRY
WITH SMART DIFFUSE GLASS

# SEMI-CLOSED CONCEPT

Its advanced energy storage system can achieve a peak coefficient of performance (COP) of up to 7.5 due to its plug-and-play designs that connect to thermal recovery projects. This allows for efficient thermal recovery, which boosts energy efficiency and cost savings.

**70% GHG REDUCTION** 

7.5 COEFFICIENT OF PERFORMANCE

# WATER MANAGEMENT

A revolutionary circular water treatment system. This ensures zero wastewater and eliminates the need for additional water intake after the initial launch—an essential step toward sustainable agriculture.



### CIRCULAR CO<sup>2</sup> SUPPLY

From this air to flourishing production, Vermax recycles captured CO2 on-site from ambient air. This technology leaves the grower with a clean, concentrated stream of CO2 and helps avoid new emissions.



#### **TURNKEY PROJECTS**

Complete design, engineering, and manufacturing state-of-the-art growing technologies and equipment.



INSTITUTIONAL FRUITS & VEGGIES



FLOWERS BIOTECHNOLOGIES





WE HAVE BEEN DESIGNING, ENGINEERING AND MANUFACTURING GREENHOUSES FOR THE NORTH AMERICAN CLIMATE.

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