

2025 INNOVATION AWARD

Vidir Solutions (Powered Pan Carousel)



Engineers Geoscientists Manitoba is proud to present the 2025 Innovation Award to Vidir Solutions for their groundbreaking work on the Powered Pan Carousel a revolutionary advancement in vertical storage technology.

The Powered Pan Carousel represents a bold leap forward in engineering innovation, combining mechanical, electrical, structural, HVAC, and automation disciplines into a single, integrated solution. Designed to meet the growing

demands of online grocery shopping and the Buy Online, Pick Up In Store (BOPIS) model, the Powered Pan Carousel enables efficient, climate-controlled storage of dry, refrigerated, and frozen goods—all within a compact footprint.

What sets the Powered Pan Carousel apart is its world-first rotating powered shelving system, which delivers electricity to each shelf without cable entanglement. This allows for the use of powered totes that maintain precise temperatures—ensuring food safety and quality. The system uses a unique magnetic switch to safely activate power only when a tote is correctly placed, enhancing user safety.

The Powered Pan Carousel also features smart inventory tracking through Vidir's Inventory Control software, enabling real-time monitoring of tote temperatures, lid openings, and order status. This significantly reduces retrieval times and improves operational efficiency.

From an engineering standpoint, the Powered Pan Carousel is a marvel of complexity. It is the first 30-foot-tall carousel built with a bolt-on frame, allowing for easier transport and installation in tight spaces. It includes a redundant power system and an optional battery-powered cart to maintain operation during outages. Its advanced thermal management system, developed through detailed simulations and testing, ensures optimal airflow and cooling—even in high-density configurations.

The impact of the Powered Pan Carousel is already being felt. With two units deployed and 168 refrigerated positions in use, the system is helping retailers reduce food waste, save time, and improve customer satisfaction. It is a shining example of how engineering innovation can directly address real-world challenges.

For its exceptional creativity, technical complexity, and meaningful societal impact, Engineers Geoscientists Manitoba is proud to present the 2025 Innovation Award to Vidir Solutions.