

Arrival on the Prairies

INTERNATIONAL VENTURE OPENS FIRST OF FOUR TERMINALS IN WESTERN CANADA



Aerial view of the new 1.3-million-bushel GrainsConnect Canada rail terminal on the Canadian National Railway at Maymont, SK. Aerial photo courtesy of GrainsConnect Canada.



GrainsConnect Canada
Calgary, AB • 866-457-2377

Founded: 2016
Storage capacity: 1.3 million bushels at one location, three more to be built
Annual volume: 300,000 to 400,000 metric ton capacity
Number of employees: 32
Crops handled: Canadian western spring and prairie spring wheat, barley, canola, peas, specialty crops
Services: Grain handling and merchandising

Key personnel:

- Warren Stow, president
- Scott Watson, general manager
- Keith Hanchuk, operations manager
- Stacey Radley, project manager

Aeration fans..... AIRLANCO

Supplier List

Bucket elevators..... VIS	Fall protection Fall Protection Systems
Bulk weigh scale C&A Scales	Gates/valves Sargent Metal Fabrication
Bulk weigh scale controls..... LV Controls	Manlift..... Schumacher Elevator Co.
Catwalks Todd & Sargent, Inc.	Millwright...Todd & Sargent Canada, Ltd.
Cleaners.. BM&M Screening Solutions Ltd., ArrowCorp	Motors WEG
Contractor .. Todd & Sargent Canada, Ltd.	Sampler..... Intersystems
Control system..... LV Controls	Speed reducers Nord Gear Corp.
Conveyors (belt)... Hi Roller Conveyors	Screw conveyors VIS
Conveyors (drag) VIS	Retractable spout..... Maljohn Co.
Distributor..... Schlager Inc.	Steel storage..... Meridian Mfg. Inc.
Dust collection system .. AIRLANCO	Tower support system Sperling Industries
Dust filters..... CAMCORP	Truck probe..... Intersystems
Electrical contractor..... Community Electric	Truck scale..... Rice Lake Weighing Systems
Elevator buckets Maxi-Lift Inc.	
Engineering Todd & Sargent, Inc.	

The parent companies are Australian and Japanese. The Japanese company has a U.S. operation headquartered in Louisiana with years of experience in originating U.S. grain for Asian markets. And now, a new joint venture has come to Canada.

“We’re here to build a supply chain from western Canada,” says Warren Stow, president of GrainsConnect Canada. The company is a venture between GrainCorp, the huge commodity operation based in Sydney, Australia, and Zen-Noh Grain, GrainCorp’s Tokyo, Japan-based counterpart with a river terminal in Convent, LA. The goal is to originate the high-quality grains for which Canadian producers are known and ship them across the Pacific.

In October 2017, GrainsConnect, which is based in Calgary, AB, opened its first of four grain elevators in Canada, a 35,000-tonne (1.3-million-bushel) rail terminal in Maymont, SK (306-389-5868). The site includes a 9,000-foot loop track for loading 130-car trains.

“The site is located on the CN (Canadian National Railway), which we’ve partnered with for all of these projects,” says Stow. “The site also has good road access along (Provincial) Highway 16. The area has strong crop production.”

Those characteristics also are found at the other three sites where GrainsConnect plans similar new elevators:

- An elevator under construction at Reford, SK is expected to be operational in April 2018.

- Groundbreaking has taken place at Vegreville, AB for an elevator expected to be online in spring 2019.

- Construction is expected to begin in April 2018 for an elevator at Huxley, AB, with a completion date in 2019.

Maymont Project

For the terminal at Maymont, GrainsConnect partnered with the U.S. design-build firm Todd & Sargent Inc., Ames, IA (515-232-0442), which served as general contractor and millwright. Todd & Sargent has operated Canadian crews since 1985 under Todd & Sargent Canada, Ltd.

“Todd & Sargent’s bid involved a collaborative process with us and was competitive,” Stow says. “They did



Ground-level view of the terminal shows a slipform concrete 10-pack of storage tanks. Not visible are 12 additional interstice bins. Ground photos courtesy of Todd & Sargent Inc.

a fantastic job, and they will build our other three elevators, as well.”

Among the other major contractors:

- Great Plains Rail Contractors Inc., Winnipeg (204-633-0135), constructed the loop track.

- Stantec, Calgary, AB (403-716-8000), did civil engineering on the site.

- Community Electric Ltd., Saskatoon, SK (306-477-8822), handled electrical systems and installation.

- LV Control Mfg. Ltd., Winnipeg (204-669-3600), supplied automation systems.

- Mainline Construction, Grande Prairie, AB (780-532-8545), did civil construction on the site.

Construction began in April 2016 and was completed 18 months later.

Slipform Structure

Storage at Maymont consists of a slipform concrete structure containing 10 large 104,000-bushel hopper tanks and 12 interstice bins.

The large tanks stand 36 feet in diameter and 140 feet tall. Six are intended for dry grain storage, while four are designed to handle wet grains as needed. They include 37-degree sandfill slickcoat hoppers, a particularly smooth type of concrete, for easy cleanout without any need to enter the tank.

The tanks have hanging capacitance level indicators supplied by LV Controls.

Each of the four wet tanks is equipped with an AIRLANCO 75-hp centrifugal fan equipped with AIRLANCO inlet barrel silencers for reduced noise levels. Each fan is capable of delivering 1/14 cfm per bushel on wheat with the assistance of two 2-hp roof exhausters. Air is delivered through a vertical pipe entering the tank above the top of the hopper.

Grain Handling

Incoming truckers key in their load information upon entering the property using a scale automation system supplied by LV Controls. After the load is sampled with an Intersystems probe, the driver proceeds to an enclosed 10-foot-x-110-foot Rice Lake aspirated dump-through truck scale. The mechanical pit sends



Rooftop view looking toward the facility cleaning house, leg head sections, and a manlift, as well as VIS 23,000-bph drag conveyors.

grain either to a 625-mtph (23,000-bph) VIS receiving leg or a similarly-sized VIS flex leg. Both legs are outfitted with a single row of Maxi-Lift 24x8 Tiger Tuff orange buckets mounted on 28-inch Goodyear Pathfinder Plus Arctic belts.

The receiving leg deposits grain into a Schlagel six-duct SwingSet double distributor, which in turn, sends grain out to storage via VIS 625-mtph drag conveyors.

The flex leg can send grain to a rooftop cleaning house, direct to rail loading, or back into the facility for transfers and audit. The cleaning house is rated to clean wheat at 240 mtph (8,800 bph). Equipment in the cleaning house, set to clean grain to Canadian export standards, includes ArrowCorp aspiration and reclaim equipment and BM&M rotary and counterflow cleaners.

Storage tanks in the slipform structure empty grain onto a 2,000-mtph (73,500-bph) Hi Roller enclosed belt conveyor in a below-ground tunnel. The belt, in turn, delivers grain to a 1,375-mtph (50,000-bph) VIS shipping leg equipped with two rows of Maxi-Lift 24x8 Tiger Tuff buckets mounted on a 54-inch Goodyear Pathfinder Plus Arctic belt.

The shipping leg feeds a 2,000-mtph C&A Scales bulkweigher under an LV Control automation system. The bulk weigh scale has 80-tonne (2,900-bushel) upper surge capacity and an Intersystems rotary crosscut sampler. Workers atop railcars are protected by a five-railcar-long trolley unit from Fall Protection Systems.

Stow reports that while the facility began receiving grain in October, no trains were loaded until December to allow time for the concrete structure to settle under weight. As of early January, the terminal had loaded two 130-car trains in a little under 14 hours. The goal, says Stow, is to get that under 10 hours.

Ed Zdrojewski, editor



BM&M Rotary Super-Flo cleaner is part of a cleaning house operation designed to clean wheat to Canadian export standards at 240 mtph (8,800 bph).