

Northern Outpost

AUBURN BEAN & GRAIN ADDS RAIL TERMINAL TO SERVE NORTHERN HALF OF MICHIGAN



Auburn Bean & Grain Co.
Auburn, MI • 989-662-4423

Founded: 1947

Storage capacity: 17-18 million bushels at five locations

Annual volume: 20-25 million bushels

Annual revenues: \$250 million

Number of employees: 75

Crops handled: Corn, soft red and soft white winter wheat, soybeans, oats

Services: Grain handling and merchandising, agronomy

Key personnel at Standish:

- Clifford Vennix, CEO
- Kyle Arnold, plant manager
- Brandon Krause, superintendent
- Shawna Johnson, office manager

Supplier List

Aeration fans.....Rolfes@Boone

Aeration controls.....OPI Integris

Bearing sensors...4B Components Ltd.

Bin sweeps.....The GSI Group

Bucket elevators....The GSI Group

Bulk weigh scale...CompuWeigh Corp.

Catwalks....LeMar Industries Corp.

Cleaners....Majik Kleener Sales Inc.

Contractor/millwright.....Elevator Services & Storage Inc.

Conveyors (belt)....Hi Roller Conveyors

Conveyors (drag)...The GSI Group

Distribution.....Schlagel Inc.

Dust collection system.....Hawthorne Systems

Dust filters.....Donaldson Torit

Elevator buckets.....Maxi-Lift Inc.

Level indicators.....Monitor Technologies LLC

Moisture meter.....DICKEY-john Corp.

Motion sensors...4B Components Ltd.

Samplers.....Gamet Mfg. Co.

Steel storage.....The GSI Group

Tower support.....LeMar Industries

Truck probe.....Gamet Mfg. Inc.

Truck scale.....Mettler Toledo, LLC



Auburn Bean & Grain Co.'s new 1.75-million-bushel rail-loading elevator at the edge of Standish, MI including two 730,000-bushel GSI tanks, two GSI grain dryers, and a 40,000-bph CompuWeigh bulkweigher. Photos by Ed Zdrojewski.

When you fly over the northern half of Michigan's Lower Peninsula, it's easy to get the impression of an unbroken expanse of forest. But tucked away among all the trees is a surprising amount of agriculture.

"We've taken loads of corn from as far north as the (Mackinac) Bridge," says Cliff Vennix, CEO of Auburn Bean & Grain Co., who purchased the Auburn, MI-based company in 1970. "We've thought about building an elevator up north for about 10 years. I've had numerous producers tell me they'd plant more corn and less soybeans, if they had a home for all those bushels."

In 2012 and 2013, the company built them a \$13 million, 1.75-million-bushel home on the southern edge of Standish, MI (989-846-9114). The site has access to the Lake States Railroad, a short-line connecting to the CSX, and several major highways including I-75, U.S. 23, and Michigan 61 and 65.

To construct the all-steel facility, Auburn Bean & Grain hired Elevator Services & Storage, Inc. (ESSI), Beaverdam, OH (419-643-5111), after looking at several other contractors. It was ESSI's first time working with the grain handler, but Vennix reports the contractor provided quality

work and on-time performance.

Nuechterlein Electric, Frankenmuth, MI (989-652-2431), served as electrical contractor. RDF Concepts, Hastings, MI (269-998-6825), designed and installed the automation systems. ESSI's sister corporation, Hawthorne Systems, Beaverdam (419-643-5861), designed the dust control system.

The project was approved in October 2012, and construction began in November 2012. The facility was operational in time for wheat harvest at the end of July 2013.

Terminal Specifications

Dry storage at the Standish terminal includes a pair of 730,000-bushel GSI corrugated steel tanks standing 105 feet in diameter, 91 feet tall at the eave, and 119 feet tall at the peak. These tanks are outfitted with flat floors, outside stiffeners, 16-inch GSI X-Series bin sweeps, and Monitor level indicators. A set of four 40-hp Rolfes@Boone centrifugal fans per tank provide 1/9 cfm per bushel of aeration, with the assistance of 11 roof exhausts, under the control of an OPI systems IntegrisPro Advanced Grain Management automation system.



Closeup of the facility's LeMar center tower including 40,000- and 20,000-bph GSI legs, five-hole Hayes & Stolz rotary double distributor, and a pair of Magik Kleener gravity screeners.

In addition, storage includes a set of five 53,600-bushel, 36-foot-diameter GSI hopper tanks for wet grains standing 84 feet tall at the peak, with 45-degree steel hoppers and aeration.

Another 12,300-bushel GSI hopper tank holds screenings.

Incoming grain trucks are routed to a 90-foot METTLER TOLEDO pitless scale adjacent to a wood-frame office building, where they are sampled with a Gamet truck probe.

From there, trucks are routed to one of two adjacent enclosed 700-bushel mechanical receiving pits. The pits feed a 20,000-bph GSI leg equipped with Maxi-Lift 20x8 low-profile Tiger-Tuff buckets mounted on a 22-inch Goodyear belt or a 40,000-bph receiving/shipping leg with two rows of 20x8 low-profile Tiger-Tuff buckets on a 44-inch Goodyear belt. The legs are housed inside a 16-foot-x-16-foot LeMar support tower with a switchback staircase.

The legs empty grain into a five-hole Schlager rotary double distributor. This sends grain via overhead 30,000-bph Hi Roller enclosed belt conveyors out to the two big tanks, via 20,000-bph overhead GSI drag conveyors to the wet tanks, or to one of two GSI grain dryers.

The dry tanks empty onto 30,000-bph Hi Roller belts in above-ground tunnels, while the wet tanks empty onto above-ground 20,000-bph GSI drag conveyors. All reclaim conveyors can reach the receiving/shipping leg, and the conveyors from

the wet tanks also can reach 8,000-bph GSI wet legs to the dryers.

Plant Manager Kyle Arnold says the company opted for two GSI natural gas-fired tower dryers, one rated at 6,000 bph at five points of moisture removal and the other at 3,500 bph, in order to dry corn and soybeans simultaneously. As of August, the dryers had not yet been used. The dryers empty into 8,000-bph GSI dry legs.

All of the legs in the facility can be put into shipping service, placing grain onto a 50,000-bph overhead Hi Roller belt

conveyor running out to a 40,000-bph CompuWeigh bulk weigh loadout scale directly over the facility's loading track. The operator may route grain through a pair of Magik Kleener gravity screeners, rated at 20,000 and 40,000 bph, respectively, prior to loadout.

The loadout system includes Smart Load, Super SmartLoad bulkweigher speed controls, and SmartCar/Smart-Read II RF railcar identification system and a Gamet sampler.

Ed Zdrojewski, editor