

# Filling a Rail Loading Gap

GAVILON ADDS A NEW ELEVATOR AND LOOP TRACK IN SOUTHWEST NEBRASKA



**Gavilon Grain LLC**  
Omaha, NE • 402-889-4000

**Founded:** 2008

**Storage capacity:** 326 million bushels at 145 locations

**Number of employees:** 2,000

**Crops handled:** Corn, wheat, soybeans, specialty grains

**Services:** Grain origination, storage and handling, transportation and logistics, merchandising and distribution, risk management

**Key personnel at Benkelman:**

- Tim Hammerich, location manager
- John Forrester, superintendent
- Wade Betschart, merchandiser
- Caitlin Roundtree, merchandiser
- Deborah Hrcka, grain clerk
- Laurie Helton, grain clerk

**Supplier List**

- Aeration fans**.....AIRLANCO
- Aeration system** .... North American Equipment Co. Inc.
- Bearing sensors**..... CMC Industrial
- Bucket elevators**..Union Iron Works
- Bulk weigh scale** .....Vigen Construction Inc.
- Bulkweigher controls**..... Cultura Technologies Inc.
- Catwalk**..... Vigen Construction Inc.
- Cleaners**.....Magik Kleener Sales Inc.
- Contractor**..Vigen Construction Inc.
- Control system**...Creek Electric Inc.
- Conveyors (belt)**.....Hi Roller Conveyors
- Conveyors (drag)**.. Union Iron Works
- Dust collection system** .....MAC Process Inc., Vigen Construction
- Elevator buckets** ..... Maxi-Lift Inc.
- Engineering (structural)**.. VAA LLC
- Grain dryer**...Zimmerman Grain Dryers
- Manlift**.....Schumacher Elevator Co.
- Millwright**..Vigen Construction Inc.
- Roof system** .....Kooiker Roofing
- Sampler**.....Intersystems
- Temporary storage**...Union Iron Works
- Tower support system** .....Vigen
- Truck probe**..... Intersystems
- Truck scales**.....Mettler-Toledo, LLC



*Ground-level view of the new Gavilon Grain rail terminal elevator in Benkelman, NE, which includes a 760,000-bushel slipform concrete storage structure and a 6,000-bph Zimmerman tower dryer. Ground-level photos by Ed Zdrojewski.*

When Gavilon Grain LLC selected a site for its newest completed grain elevator, the company looked hard to find an area underserved by shuttle rail loaders. The town of Benkelman, NE, in the southwestern corner of the state near the Colorado and Kansas state lines, served that purpose very well.

“There was a shortage of commercial space,” says Location Manager Tim Hammerich, a five-year veteran of Gavilon and, before its acquisition, DeBruce Grain Inc. “In terms of shuttle loaders, we’re 67 miles to Yuma (CO), 80 miles to Colby (KS), 80 miles to Venango (NE), and 70 miles to Bartley (NE).”

Benkelman does have a branch elevator of a local cooperative, but that facility is a single-railcar loader, Hammerich adds.

With that in mind, Gavilon purchased a roughly 150-acre site to the south of Benkelman along the Burlington Northern Santa Fe in 2010. In order to get some use out of the site, the company put up a Union Iron Works temporary storage pile providing 2 million bushels of space. “We were able to take in corn from the 2010 harvest, and we loaded trucks directly from the ground piles,” he says.

That got the job done, but the site needed some state-of-the-art upright storage, as



*Aerial view of the Benkelman terminal shows 760,000-bushel slipform concrete elevator and a 2-million-bushel Union Iron Works temporary storage pile, Aerial photo by Heavens View Photography, Sterling, CO.*

well. Gavilon started construction of a 760,000-bushel slipform concrete elevator early in 2011, with Vigen Construction Inc., East Grand Forks, MN (218-773-1159), as the mechanical contractor. Vigen has built several other slipform concrete facilities for Gavilon. Also involved with the project was VAA LLC, Plymouth, MN (763-559-9100), which served as structural engineer.

Vigen completed the slip in May 2011, and the facility began taking in grain in October.

“We’ve loaded two shuttle trains so far, and we’ll start the third next week,” Hammerich told *Grain Journal* during a visit to the elevator Jan. 19.

### Storage

The main upright elevator includes a “six-pack” of 110,000-bushel tanks standing 36 feet in diameter and 140 feet tall.

Because the facility is intended for frequent train-loading, the tanks have no grain temperature cables. However, they are equipped with KanalSystem floors with side sumps for both aeration and air-assisted unloading. A series of 50-hp AIRLANCO centrifugal fans provide the air to power the system.

### Product Flow

Incoming grain trucks are weighed on an 80-foot METTLER TOLEDO above-ground scale adjacent to the facility office and sampled with an Inter-systems truck probe prior to proceeding

to the receiving pits. Empty outbound trucks are weighed on a second 80-foot Mettler Toledo scale.

The facility has two side-by-side enclosed receiving pits, two 400-bushel pits for truck use and a 1,000-bushel combination truck and rail pit.

The pits feed two Union Iron legs, each rated at 20,000 bph. The truck-receiving legs are equipped with two rows of Maxi-Lift 16x8 Tiger-Tuff buckets mounted on a 36-inch belt. The receiving legs empty directly onto a pair of 20,000-bph Union Iron drag conveyors running out to storage or to the bulk weigher. The operator has the option of routing grain through a 20,000-bph Magik Kleener screeners prior to storage. A second screener, rated at 40,000 bph, is used for train

*Trucks line up to be weighed adjacent to the facility’s office on an 80-foot METTLER TOLEDO scale and sampled with an Intersystems truck probe.*



loading only.

Drying is done in a 6,000-bph natural gas-fired Zimmerman tower dryer serviced by a 10,000-bph Union Iron wet leg and a 15,000-bph Union Iron dry leg.

Storage tanks empty onto a 60,000-bph below-ground Hi Roller enclosed belt conveyor running back to a receiving leg and loadout leg. Three of the tanks also can empty onto a 15,000-bph above-ground Union Iron drag



*Superintendent John Forrester (left) and Location Manager Tim Hammerich.*

conveyor running to the wet leg. The storage complex has one sidedraw for truck loading.

For rail loading, the facility uses a 40,000-bph loadout leg equipped with three rows of 20x8 Maxi-Lift Tiger-Tuff buckets on a 64-inch belt.

This combines with one of the two 20,000-bph legs and the 15,000 bph dry leg to feed a 75,000-bph Vigen bulk weigh loadout scale,



*The new terminal has more than 11,000 feet of track including a loop track off the Burlington Northern Santa Fe for nonstop rail loading. Photo by Heaven's View Photography.*

equipped with Cultura Technologies oneWeigh™ control software and an Intersystems sampler. Forrester comments that the system loads railcars as

quickly as three to four minutes each. The property has 11,058 feet of rail constructed by Railworks, enough to hold 130 high-cube railcars. Nearly

8,000 feet constitute a loop track, with the rest in two spurs for railcar storage or bad order cars.

*Ed Zdrojewski, editor*