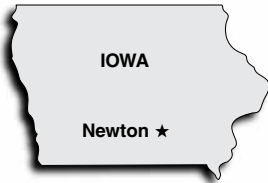


Rail Loader at Railyard

NEWLY-FORMED KEY COOPERATIVE ADDS A TERMINAL IN NEWTON, IA



Key Cooperative
Roland, IA • 515-388-4589

Founded: 2009
Storage capacity: 23.5 million bushels at 13 locations
Annual volume: 40 million bushels
Annual revenues: \$450 million
Number of members: 1,800
Number of employees: 220
Crops handled: Corn, soybeans
Services: Grain handling and merchandising, feed, agronomy, precision agriculture, petroleum, trucking, construction services, auto repair, NAPA parts store, lumberyard

Key personnel at Newton:

- Jim Magnuson, general manager
- Matt Kauffman, location manager
- Adam Johnson, superintendent

Supplier List

Aeration fans.. Brock Grain Systems
Bin sweeps Brock Grain Systems, Sioux Steel Co.
Bucket elevator Schlagel Inc.
Bulk weigh scale C&A Scales
Bulk weigh scale automation Cultura Technologies
Catwalk Johnson System Inc.
Cleaner Intersystems
Contractor... Premier Millwright Inc.
Conveyors Schlagel Inc.
Distributor..... Schlagel Inc.
Elevator buckets Tapco Inc.
Engineering Curry Wille & Associates
Fall protection ... CAI Safety Systems
Level indicators BinMaster
Millwright Premier Millwright Inc.
Samplers Intersystems
Speed reducers Dodge
Steel storage... Brock Grain Systems
Tower support systems Johnson System Inc.
Truck scale.. Cardinal Scale Mfg. Co.
Truck probe..... Gamet Mfg.



Key Cooperative began construction of this 590,000-bushel rail terminal on the outskirts of Newton, IA shortly after it was created in early 2009 through the merger of Heart of Iowa Cooperative and Sully Coop Exchange. Photos by Ed Zdrojewski.

When the former Heart of Iowa Cooperative and Sully Coop Exchange merged in 2009 to form Key Cooperative, the newly-combined board looked for places around central Iowa to boost service to the expanded membership.

One location immediately available was a 50-acre site on the outskirts of Newton, IA right next to a railyard operated by Iowa Interstate Railroad, a regional line with connections to the Union Pacific and Burlington Northern Santa Fe.

Key Cooperative used the site to build a 590,000-bushel all-steel rail-loading terminal with 2,000 feet of track in a standard ladder-type railyard.

Location Manager Matt Kauffman performs a visual inspection of a corn sample at the Newton terminal's two-story scalehouse.

Building the facility was Premier Millwright Inc., Cedar Rapids, IA (319-366-3344), which has done construction work in the past for both of the predecessor cooperatives.

"They did some work for us at our LeGrand (IA) location, and we were very impressed," says Newton Location Manager Matt Kauffman. He came to Newton in February 2010 from a position at Sully Coop Exchange.

Construction of the terminal began in



June 2010, and it was just finishing up in mid-November when *Grain Journal* stopped by for a photo shoot. The cost of the project is confidential.

Terminal Specifications

Grain storage at the site is handled by a pair of 272,000-bushel Brock corrugated steel tanks standing 72 feet in diameter, 73 feet tall at the eaves, and 90 feet tall at the peaks.

The tanks are outfitted with outside stiffeners, flat concrete floors, BinMaster level indicators. 12-inch Brock zero-entry sweep auger in one tank, and Daay paddle sweep in the other.

A pair of 15-hp Brock centrifugal fans per tank supply 1/10 cfm per bushel of aeration.

In addition to the two storage tanks, the facility also includes a smaller hopper-bottom, 20,000-bushel Brock blending bin standing 24 feet in diameter and 48 feet tall at the eave. The overhead tank mounted for truck loadout has no grain temperature monitoring or aeration.

Flow of Grain

To the south of the tanks is a two-



Grain handling equipment visible in this photo include a Gamet truck probe, Cardinal dump-through pit scale, and fall protection unit from CAI Safety Systems.

story scalehouse. Workers occupy the second story, allowing them to operate the Gamet truck probe safely and peer physically into truck hoppers, although the facility also is equipped with closed-circuit TV cameras.

Incoming trucks are weighed on a

90-foot flow-through Cardinal pit scale. From there, grain flows to a 15,000-bph Schlagel receiving leg, which is equipped with 7x20 Tapco heavy-duty buckets mounted on a 22-inch Goodyear belt.

The leg sends grain through a six-hole Schlagel swing-type automated distributor. From there, Schlagel 15,000-bph overhead drag conveyors take grain out to storage or to the bulkweigher.

Storage tanks empty onto 15,000-bph above-ground Schlagel drag conveyors that return grain to the leg.

The operator has the choice of running grain through a 16,000-bph Intersystems gravity screener before it goes to a 30,000-bph bulk weigh loadout scale supplied by C&A Scales. The bulkweigher is under the control of a one Weigh™ system from Cultura Technologies. Workers atop railcars during loading are protected by a cable-type fall protection unit from CAI Safety Systems running the length of about 2-1/2 cars.

Kauffman comments that the new facility is expected to be able to load 50-car trains in eight hours. The Iowa Interstate Railroad allows 48 hours to load a train.

Ed Zdrojewski, editor