

# More Speed and Space

MID-KANSAS COOP ADDS 600,000 BUSHELS OF STORAGE, NEW LEG, OFFICE BUILDING

## KANSAS

★ Lindsborg

### Mid Kansas Cooperative Association

Moundridge, KS • 800-864-4428

**Founded:** 1965

**Storage capacity:** 25 million bushels at 35 locations

**Annual revenues:** \$225 million

**Number of employees:** 175

**Crops handled:** Corn, soybeans, hard red winter wheat, sorghum

**Services:** Grain handling and merchandising, feed, agronomy, fuel service

#### Key personnel at Lindsborg:

- Steve Peterson, northern regional operations manager
- Steve Coney, location manager
- Noel Eshelman, superintendent

#### Supplier List

**Aeration fans** ..... Rolfes@Boone

**Bin sweeps** ..... Sudenga Industries

**Bucket elevator** ..... Intersystems

**Catwalk** ... Frisbie Construction Co.

**Concrete tank** ..... McPherson  
Concrete Storage Systems

**Contractor** Frisbie Construction Co.

**Control system** ..... Warestar

**Conveyors** ..... Intersystems

**Distributor** ..... Schlagel Inc.

**Dockage tester** .... Mid-Continent  
Industries

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

**Leg belting** .... RBH Mill & Elevator

**Level indicators** ..... Monitor  
Technologies LLC

**Millwright** .. Frisbie Construction Co.

**Moisture meter** ..... GSF Inc.

**Motors** ..... Toshiba International

**Speed reducers** ..... Dodge

**Tower support system** .... Frisbie  
Construction Co.

**Truck probe** ..... Intersystems

**Truck scale** ..... Salina Scales



*Mid Kansas Coop Association's grain elevator at Lindsborg, KS, with two new McPherson jumpform concrete tanks holding 318,000 bushels each at right. Aerial photo courtesy of McPherson Concrete Storage Systems.*

Mid Kansas Coop Association has been facing the same issues throughout the large swath of central Kansas that it serves with its 40-plus grain-handling locations.

That certainly held true at the cooperative's 1.2-million-bushel truck house in Lindsborg, KS (785-227-3361), says Steve Peterson, who has been the coop's director of northern operations since 2005. The issues were the need for more speed and more space.

"Producers are getting larger, and so is the harvest equipment they're using," Peterson says. "Our cooperative has a lot of aging facilities. Our strategic plan calls for adding both more bushels of upright storage and increased grain-handling capacity.

In Peterson's northern region, the rail-loading elevator at Groveland, KS was the first to receive that treatment back in 2008. By the fall of 2009, it was the Lindsborg elevator's turn.

For space, the cooperative added a pair of 318,000-bushel jumpform concrete tanks. For speed, it added a new pit and leg rated at 19,400 bph. And for good measure, the coop also built a new office building, with an adjacent truck scale and probe.

#### The Project

To build the additions, Mid Kansas turned to three suppliers with which it has had long-established relationships:



*New regional office building for Mid Kansas Coop Association at Lindsborg, including new 80-foot-long truck scale from Salina Scales and Intersystems truck probe at left. Ground-level photos by Ed Zdrojewski.*

- McPherson Concrete Storage Systems, McPherson, KS (800-999-8151), constructed the two jumpform concrete tanks.

- Frisbie Construction Co. Inc., Gypsum, KS (785-536-4288), served as millwright on the project.

- Watson Electric Inc., Salina, KS (785-827-2924), installed the electrical and control systems.

Construction on the \$2.8 million project got underway in the fall of 2009, and it took most of the fall and winter just to construct the tank foundations. The site had very spongy soil extending down about 90 feet to a shale bedrock.

As a result, McPherson Concrete had to put down 132 pilings per tank



*Locatoin Manager Steve Coney (left) and Regional Operations Manager Steve Peterson.*

extending down 96 feet to form a firm foundation to support the weight.

Construction on the rest of the project was able to commence in early March 2010, and everything was done around June 1, just in time for the Kansas wheat harvest.

### Concrete Tanks

The two new concrete tanks stand 60 feet in diameter and 128 feet tall, holding 318,000 bushels each.

The flat-bottom tanks are equipped with 14-inch Sudenga bin sweeps and five-cable Rolfes@Boone grain temperature monitoring systems. A set of six 60-hp Rolfes@Boone centrifugal fans per tank supply 1/6 cfm per bushel of aeration through in-floor ducting, with the assistance of six roof exhausters per tank, plenty of air for tightly-packed small grains.

A 1,250-bushel mechanical receiving pit was constructed adjacent to the new tanks, the facility's third. This pit feeds a 19,400-bph Intersystems leg outfitted with a single row of Maxi-Lift 20x8 CC-HD low-profile buckets mounted on a 22-inch belt from RBH Mill & Elevator.

The leg feeds grain into a six-hole Schlagel rotary distributor, four holes of which currently are used. The distributor reaches both tanks via gravity spouts.

The new tanks are emptied through sidedraw spouts, then through four drops onto a XX,XXX-bph Intersystems drag conveyor in a below-ground tunnel. This conveyor runs back to the new leg.

### Regional Office

Mid Kansas also built a 55-foot-x-110-foot steel office building to the north of the new tanks. Peterson comments that the structure's 6,050 square feet provides enough space to



*Grain quality lab includes a DICKEY-john GAC 2100 moisture tester and an MCI Kicker dockage tester.*



*New 19,400-bph Intersystems leg feeds into a six-hole Schlagel rotary distributor.*



*New tanks are outfitted with half a dozen Rolfs@Boone 60-hp centrifugal fans supplying 1/6 cfm per bushel worth of aeration.*

consolidate a number of operations for the cooperative's northern region, including grain testing and merchandising, crop insurance sales, and agronomy into one location. The building includes a small warehouse for storing feed, seed, chemicals, and carryout traffic items.

"If necessary, our counter person can load up a retail order," says Peterson. "Before, the customer had to get a ticket and drive back to a separate warehouse to load the order."

Adjacent to the office building is a new 80-foot pit-type truck scale from Salina Scale. The installation includes an Intersystems truck probe. Inside the new building is a small grain quality lab that includes a DICKEY-john GAC 2100 moisture tester and MCI Kicker dockage tester.

"We've designed this facility for future growth," Peterson says. "We have the space for at least two more storage tanks and will be making some changes to improve traffic flow."

*Ed Zdrojewski, editor*



*Ground level view of the new McPherson concrete storage tanks.*