

A Quieter Dryer

MINNESOTA COOPERATIVE REPLACES AGING DRYER WITH HIGHER-CAPACITY MODEL



New 1,500-bph Delux DPXSL continuous flow dryer installed at Browns Valley Community Elevator in Browns Valley, MN provides the cooperative with higher drying capacity and lower noise levels. Photo courtesy of Delux Mfg. Co.

When the time came to replace an aging 350-bph grain dryer at **Browns Valley Community Elevator** in Browns Valley, MN (320-695-2327), quiet operation was a key consideration. After all, the community-owned elevator, purchased from a bankrupt owner in 1990, stands in the middle of a residential area.

The noise factor alone justified the purchase, says **General Manager Michael Heck**. The cooperative in August 2007 installed a **Delux DPXSL Series continuous flow dryer**, manufactured in Kearney, NE by **Delux Mfg. Co.** (800-658-3240). **Grain Dryer Service**, Alexandria, MN (320-760-6056) sold the dryer to Browns Valley and provided installation.

The new dryer is rated to remove five points of moisture from corn at 1,500 bph.

“You can stand right next to the dryer when it’s operating and have a conversation in a normal tone of voice,”

Heck comments.

Time for an Upgrade

This past year was well past overdue to replace the old Super B dryer that the facility had been operating since the late 1970s. Heck notes that the flighting had started to develop holes, and the entire dryer was starting to deteriorate badly.

Browns Valley selected the Delux dryer on the strength of the recommendation of a local dealer and a visit to an area grain elevator where a Delux dryer was in service. Among the dryer’s features:

- A unique vacuum-cooled design for maximum efficiency and best grain quality.
- Free air access openings uniformly distributed around the dryer structure to maintain proper static pressure and more uniform heat distribution around the plenum area.
- A large plenum chamber designed to eliminate common hot and cold spots.
- A large cooling chamber designed to recapture waste heat and blend it with incoming air for improved fuel consumption.
- A wide-vane axial fan completely enclosed inside the dryer structure for quiet operation.
- Large rear walk-in doors with safety steps, catwalks, and railings for easy access to the plenum chamber for routine inspection and maintenance.
- Self-cleaning, concave aluminum metering rolls designed to minimize grain damage, column slide gates for easy cleanout, and flip-up doors for easy access for maintenance.

Performance Numbers

The propane-fired Delux dryer was used to dry approximately 250,000 bushels of corn during the 2007 fall harvest.

Heck says elevator workers monitored the dryer’s propane usage and recorded levels as high as 17 bushels of corn per gallon of propane used. That’s roughly 35% to 40% of the propane usage with the older dryer.

In addition to the dryer, Browns Valley Community Elevator also installed a 3,000-bph wet leg to feed grain into the new dryer. The dryer empties into a pneumatic conveying system that carries dry grain either to the top of a nearby steel storage tank or to an existing leg.

Ed Zdrojewski, editor

(Photo caption)

New 1,500-bph Delux DPXSL continuous flow dryer installed at Browns Valley Community Elevator in Browns Valley, MN provides the cooperative with higher drying capacity and lower noise levels. Photo courtesy of Delux Mfg. Co.