

Rail Receiver in Texas

WORLD'S LARGEST MASA FLOUR PLANT GETS A NEW GRAIN ELEVATOR



Azteca Milling LP
Irving, TX • 956-232-5300

Founded: 1977
Products: 50+ corn masa flours
Production capacity: 780,000 mtpy at six locations
Number of employees worldwide at all GRUMA S.A.B. de C.V. locations: 17,000

Key personnel at Plainview:

- Santos Gallegos, corn operations manager
- Angel Garcia, superintendent
- Gabriel Martinez, quality control manager
- Abelardo Nunez, logistics manager
- Rodolfo Fraz, maintenance manager

Supplier List

Aeration fans Brock Grain Systems
Bin sweep Brock Grain Systems
Bucket elevators Union Iron Works (UIW)
Catwalk UIW
Contractor Adams Building Contractors
Conveyors (belt) Hi Roller Conveyors
Conveyors (drag) UIW
Dust collection system AIRLANCO
Elevator buckets Maxi-Lift Inc.
Engineering SKS Engineers Inc.
Grain dryer Brock Grain Systems
Grain temperature system Safe-Grain/Maxitronic Inc.
Leg belting All-State Belting
Millwright Hi Plains Millwright
Spouting Nolan Milling Inc.
Staircase ... LeMar Industries Inc.
Steel storage .. Brock Grain Systems
Tower support system UIW
Truck probe UIW



Azteca Milling LP's new 550,000-bushel rail receiving elevator, built in 2008 at its masa plant near Plainview, TX, reputedly the world's largest masa plant, Photos by Bobby's Photography, Plainview.



Key personnel at Plainview, from left: Gerardo Oseguera, vice president-project services; Ismael Davila, corn assistant manager; Jorge Sanchez, construction supervisor; and Santos Gallegos, corn operations manager.

When you operate the largest masa (corn flour) plant in the world, you run through a lot of corn in a year's time. In the case of Azteca Milling LP at the south end of Plainview, TX (806-293-0110), with four production lines turning out 400,000 tpy of masa flour used in the production of tortilla products, that translates into 5.5 million bushels of corn annually.

While the amount of identity-preserved white corn grown within a reasonable trucking distance of Plainview has increased in recent years, says Corn Operations Manager Santos Gallegos, it hasn't been enough to supply the plant. As a result, Azteca in 2008 constructed a new 550,000-bushel corn receiving elevator and 9,000-foot loop track to handle 110-car shuttle trains from the adjacent Burlington Northern Santa Fe (BNSF) main line.

Portion of a 9,000-foot loop track constructed by Trac-Work Inc. from 115-lb. rail, capable of holding a complete 110-car shuttle train without having to decouple any cars.

“We started looking into the project two years ago,” Gallegos comments, noting that in addition to high volume, increased competition for corn from dairy, beef, and ethanol operations in west Texas forced Azteca to import increasing amounts of corn from the Midwest. And with BNSF’s rate structure, a shuttle receiving facility became desirable.

After meeting with several potential contractors on the project, Azteca selected the Montgomery, IN office of Adams Building Contractors (formerly Graber Agri Builders Inc./812-486-3279) as the general contractor on the \$6.5 million project.

Among the other players on the project, Hi Plains Millwright, Plainview (806-293-4471), performed millwright work; SKS Engineers Inc., Decatur, IL (217-877-2100), performed engineering and design work; and Weeke Sales & Service Inc., Okawville, IL (618-243-5333), designed the PLC control systems. Trac-Work Inc., Amarillo, TX (806-383-2591), constructed the loop track from 115-lb. rail.

Construction began in April 2008, and the first train arrived in December.



The Elevator

Storage for incoming corn consists of a Brock 550,000-bushel corrugated steel tank standing 90 feet in diameter, 96 feet tall at the eaves, and 120 feet tall at the peak.

The flat-bottom tank has outside stiffeners, 24-cable Safe-Grain temperature monitoring system, and 12-inch Brock sweep auger. A set of four 40-hp Brock aeration fans provide 1/10 cfm per bushel worth of air through in-floor ducting in a double-F pattern.

Incoming corn is delivered into a steel-walled rail shed. The facility has no bulkweigher, since Azteca buys on origin weights.

Instead, a pair of mechanical rail pit feeds two 22,500-bph Union Iron Works (UIW) legs outfitted with two rows of 14x8 Maxi-Lift Tiger-Tuff heavy-duty buckets mounted on a 30-inch belt from All State Belting.

Azteca takes dust control issues seriously, being located at the edge of town and adjacent to Interstate Highway 27, so each pit is equipped with baffles to control the flow of grain and an AIRLANCO baghouse system.

The legs, encased in a 16-x-24-foot UIW support tower with metal staircase, drop grain onto a 45,000-bph Hi Roller enclosed belt conveyor running out to the tank.

The tank empties onto a 15,000-bph UIW drag, which in turn, feeds more than 1,000 feet of Brock belt conveyors, which deliver corn directly to Azteca’s adjacent corn processing facilities.

Gallegos says the new receiving elevator is on track to bring in 5.5 million bushels of corn via rail, primarily from elevators in the Midwest.

Ed Zdrojewski, editor

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