



Gavilon's new dome allows the company to maximize mix and blend.



The dome was fitted with a no-entry BinGator system and a robust aeration system with 16 fans.



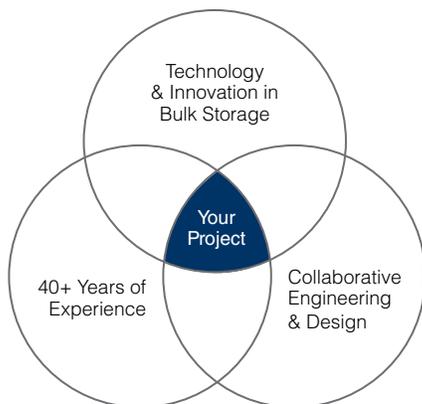
The dome was built at an existing, on-rail Gavilon site.

Scope of Work

- FEED Study
 - Value Engineering
 - Geotechnical Analysis
 - Material-Handling Systems Engineering
 - Structural Engineering
 - Mechanical Engineering
 - Electrical Engineering
 - Procurement & Subcontract Management
 - Dome Construction
 - Tunnels Construction
 - Material-Handling Systems Installation
 - Additional Steel & Concrete Construction
- None Some All

Storage & Reclaim

- 1 DomeSilo: 40.8m (170ft) wide x approx. 33.5m (110ft) tall
- 1.37 million bushels, grain
- BinGator sweep (no-entry system)



Overview

In August 2021 agricultural-commodities leader Gavilon completed its first season with a new DomeSilo capable of storing 1.37 million bushels in Shelburn, Indiana.

The dome replaced use of ground piles, allowing the company to reduce labor demand, maximize mix and blend opportunities, and better protect product. Soybeans were stored in the DomeSilo for 11 months, during which the interior temperature was well managed; in July, for example, product temps in the bottom quarter of the dome were 35 to 40 degrees Fahrenheit.

The dome also made it possible for Gavilon to cycle product, greatly increasing soybean throughput. "Previously we had a ground pile for beans, and once it was full, that was it, with some exceptions. But the dome allowed us to fill and reclaim as needed and take advantage of the changing markets and prices without the labor and time involved with a pile," said Gavilon Director, Operations Tom Lechtenberg.

The 170 X 110-foot dome was designed with a no-entry BinGator system. AIRLANCO provided the aeration system that includes six bay fans and 10 exhaust roof fans.

The DomeSilo was built at an existing company site, and "it allows Gavilon to blend out of this structure and load to rail directly. It will give them the capability to cycle that multiple times," said sales manager Heath Harrison, adding that the biggest advantage to the upgraded facility will be the no-entry feature. "Now it's going to be more efficient—less manpower needed."

During the first season, manpower reduction was significant. "Overall, the labor for the day-to-day operations of the dome were much less than a pile. Having everything automated allowed us to keep a visual on everything without taking a guy out of another position just to go watch the pile," Lechtenberg said, adding that during reclaim operations and train loading, a single employee was able to have full control of his feed compared to the previous model that required two or three employees on the pile pulling tarp, loading trucks, moving aerations tubes, communicating on radio, and adjusting flow rates.

Read more about this project at link.dometechnology.com/33943