

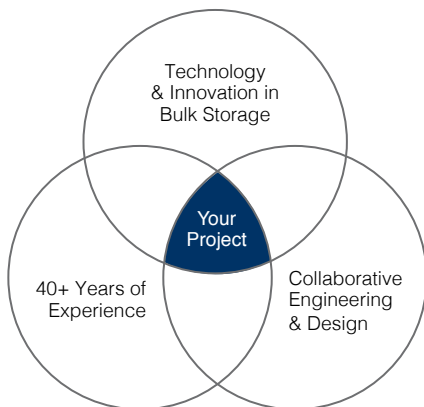


Scope of Work:

- 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
- Explosion Relief Installation
- Additional Steel & Concrete Construction
- None Some All

Storage & Reclaim:

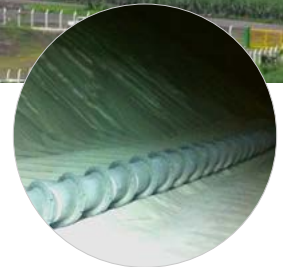
- 1 Dome: 61.9m (203ft) Wide x 46.6m (153ft) Tall
- 75,000 Metric Tons, Refined Sugar
- Reclaim Screw, 1 Tunnel, 65% Live Reclaim



To compensate for the difficulties of volcanic soil, this Dome was built on a special foundation that eliminated costs and resolved foundation concerns.



A DomeSilo™ is the ideal shape to protect refined sugar against storms and earthquakes.



75,000 metric tonnes of refined sugar can be stored and then reclaimed utilizing a reclaim screw.

Overview:

As lush as the sugar cane grows in Guatemala, the soil doesn't make it easy for companies to build their businesses. Volcanoes have done their worst to the soil, leaving the ground difficult to work and with low capacity for supporting large structures.

Ingenio Magdalena, producer of 20 percent of Guatemala's sugar, trusted Dome Technology to find a solution for geotechnical concerns. Their dome was built on a Geopier foundation, a crushed, compacted aggregate pile that's cheaper than cast-in-place piles and resolved their foundation concerns. Inside the dome, customization didn't end, and of utmost importance were constant air conditions. "Temperature and humidity must be ideal for sugar storage. The weather that prevails in this zone is hot, which does not favor storage conditions," said Cesar Augusto Vasquez Estrada of Ingenio Magdalena.

Temperature-control and humidity-control systems regulate airflow. Air is also forced through the sugar pile to keep conditions consistent. Loading conveyors are air injected to pressurize the system, preventing fluctuations as sugar enters and vacates the structure. The dome is currently the largest long-term sugar storage facility in South America and can store 75,000 metric tons.

With so much storage available, the company is able to store product until sugar prices are ideal; as a result, Ingenio Magdalena was quickly able to recoup most of its investment in the project and make a profit too. "The combination of temperature control and humidity control is what made this dome so special," Dome Technology operations manager Eudaldo Chavez Zazueta said. "There's no other storage facility that offers that."

"For nearly four decades we've relied on a collaborative approach with companies—they're in the driver seat, and we help navigate. In every project Dome Technology incorporates innovative technology to maximize storage capacity and system performance with an economical solution," Bradley Bateman, CEO, Dome Technology



Read more about this project at: link.dometechnology.com/960