



Shotcrete Benefits

- Eliminated need for formwork
- Enabled access to restricted space and difficult-to-reach areas
- Ability to do shotcrete repair on vertical surfaces, preventing teardown
- Compatible with re-coating products



Four silos were deteriorating with evident and excessive spalling.



After cracks were patched, sealant was added to the entire structure. The roof received a nonslip surface in addition to sealant.



With the repair and re-coat complete, Gavilon can expect another decade of exterior life from existing silos.

Dimensions & Features

- 40ft (12.2m) diameter X 130ft (39.6m) tall
- Coat sides and roof with silicone or poly sealant
- Add 10+ years of life to silos

Overview

Agricultural-product provider Gavilon hired Dome Technology to repair and coat four existing concrete silos storing corn and soybeans in Creston, Iowa, guaranteeing 10 more years of exterior life.

The silos, built in 1978, were deteriorating, particularly two that had been spalling for three years, said Gavilon superintendent Britt Boozer. Another company worked on interior upgrades simultaneously, and “with extending the liners and doing what we did on the outside, (our company) felt like that was a more economical way—to repair the bins rather than tear them down and build new,” Boozer said.

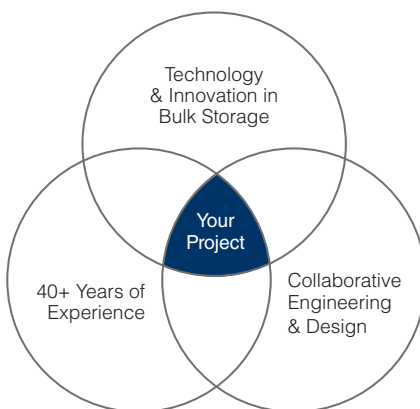
The Gavilon concrete silos required light concrete-crack repair, and the Dome Technology team began the project by pressure washing and prepping the structure, then shotcreting and patching all cracks in exposed areas. Silicone sealant was applied to the entire building including the roof, where a nonslip surface was also added.

“We’re basically encasing the whole structure with this casing, so we shouldn’t see the spalling continue any longer,” Dome Technology sales manager Heath Harrison said. “The selling point is making silos truly watertight; paint and other restoration processes fail to do that long term.”

Cost savings are the biggest benefit to this kind of silo repair. According to Harrison, silos otherwise destined for teardown can be salvaged in only a few weeks. In addition to repairing silos, Dome Technology can apply coatings in fade-resistant colors. “It can serve as an aesthetic solution as well, so it’s a two-for-one,” Harrison said.

Boozer agreed, stating that if people were seeing the silos for the first time, “they would go, ‘These have just been put up three, four, five years ago.’ Aesthetically they look a lot better.”

“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 system performance with an economical solution,” Bradley Bateman, CEO, Dome Technology.



Read more about this project at link.dometechnology.com/19467