



Twin Silo Slipforming

Twin concrete storage silos at Taiheiyo Cement's Batangas facility in the Philippines.

DATA AT A GLANCE

	Silo #1	Silo #2
Silo Height:	63 m	57 m
Internal Diameter:	28 m	22 m
Concrete Volume:	3,900 m ³	2,500 m ³

Parallel Delivery



Staggered slipform operations kept both silos advancing while sharing specialist resources.

Safe Execution



Safety-focused execution of continuous slipform and work-at-height activities within a live industrial facility.

Responsive Engineering



Real-time design coordination kept site works and roof fabrication progressing.

Project Overview

Balanced Engineering & Construction was engaged by Shimizu Philippine Contractors, Inc. as the specialist subcontractor for the construction of two post-tensioned concrete storage silos at Taiheiyo Cement's facility in Calaca, Batangas, Philippines.

BEC's scope combined specialist slipform construction with engineering coordination, detailing, structural-steel fabrication, roof works and post-tensioning works.

Delivered over a 13-month programme, the project required close coordination of design, fabrication and site activities across two silo structures progressing in parallel.

Challenges

- Sequencing two silos in parallel. Running both silos through slipform wall, inverted-cone and roof construction stages without concurrent slides required careful sequencing so that manpower, equipment, and concrete supply could be shared efficiently.
- Evolving design coordination. As the roof design and construction methodology were refined in collaboration with the main contractor, BEC adapted temporary works and construction joint planning iteratively, keeping the programme moving without stopping work on site.
- Seasonal rain and wind affected tower crane operation and concreting windows at points in the programme; BEC resequenced activities to protect the overall schedule.



Two silos progressing through staggered construction stages.



Structural-steel roof girder installation



Roof concreting following reinforcement and embedded-item installation.

Owner

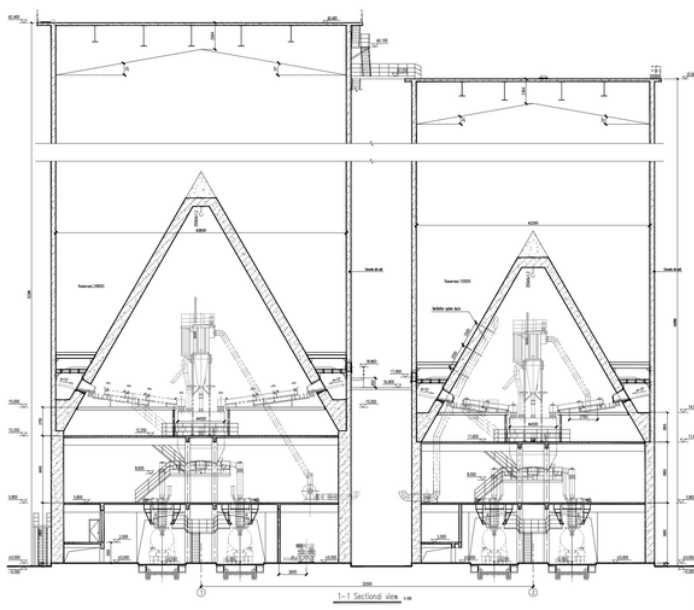
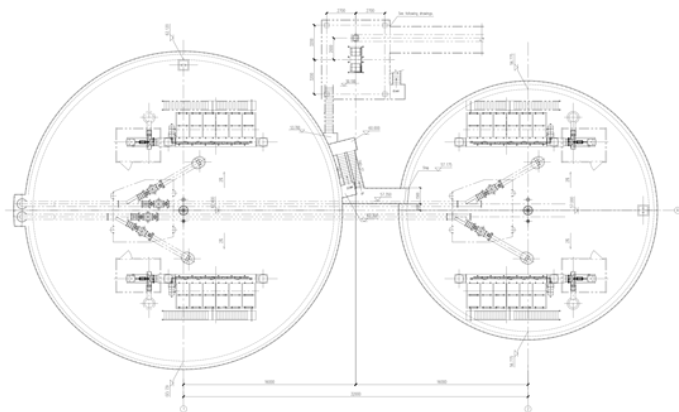
Taiheiyo Cement Philippines Inc.

Client

Shimizu Philippine Contractors, Inc.

Completion Date

September 2026



BEC Scope and Delivery

BEC's scope combined specialist slipform construction with engineering coordination, detailing, structural-steel fabrication and roof works, together with the coordination of specialist post-tensioning and falsework packages. Its design department coordinated shop drawings for two slipform rigs, reinforcement bar bending schedules and structural steelwork, linking design with fabrication and site execution.

Staggered slipform operations allowed specialist personnel, equipment and concrete supply to be shared efficiently while keeping both silos advancing.

In parallel, BEC fabricated approximately 200 tonnes of roof and associated structural steelwork, coordinating cast-in plates, construction joints and temporary support steelwork with Shimizu as the roof methodology developed.

The BEC Impact

The project brought together several technically demanding work fronts, including continuous slipform wall construction, inverted concrete cones, post-tensioning works, specialist formwork and falsework systems, complex roof structures and extensive work at height.

BEC's experience in cement-silo construction enabled these interdependent activities to be planned and executed by skilled specialist teams. Proven work methods, experienced supervision and disciplined coordination maintained efficient progress across both silos while retaining a strong focus on safety and quality.

Planning a complex silo or slipform project?

Talk to BEC about specialist engineering, fabrication and construction delivery.

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