Cement Plant High-Angle Conveyor Engineering â?? Tire Chip Elevation

Description

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Industry: Cement | **Service:** Conveyor Engineering & Analysis

The Challenge

A cement plant required vertical elevation of tire chips â?? used as an alternative fuel source â?? 133 feet along the face of a tower, while maintaining unobstructed vehicle access at the base of the structure. A conventional conveyor could not achieve the required lift within the available footprint, and the base of the installation had to bridge over an active vehicle passageway.

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The Solution

DSE engineered a combination Sandwich Belt high-angle conveyor system using both Snake and GPS (Gently Pressed Sandwich) conveyor arrangements within a single installation.

At the base of the unit, a 55-degree Snake segment was designed to bridge over the vehicle passageway â?? effectively lifting the material from ground level to a sufficient elevation before transitioning into the vertical section. Above this, a vertical GPS section ran along the face of the building to carry the tire chips the full 133 feet to the top of the tower.

The two conveyor arrangements were integrated into a continuous conveying path, eliminating any intermediate transfer point and the spillage and maintenance that would accompany it.

Result

The installation successfully achieves the required vertical elevation of tire chips while maintaining the vehicle passageway at the base of the structure. The tire chips are efficiently delivered to their destination where they serve as an environmentally preferred alternative fuel in the plant process.

Contact DSE to discuss high-angle conveyor engineering for your cement or industrial facility.

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