



Case Study:

ADVANCED COPPER FILTER CAKE HANDLING AT COPPER MINE, CHILE

Location:
Sierra Gorda, South America

Operation Type:
Copper

Equipment Solution:
Low Profile Feeder

Year:
2023

Scope of Project:

As industrial processes become more complex, the demand for high-capacity, efficient filtration solutions has grown. Our client sought to create a next-generation filter press capable of achieving unprecedented throughput while maintaining operational safety, reliability and ease of maintenance.

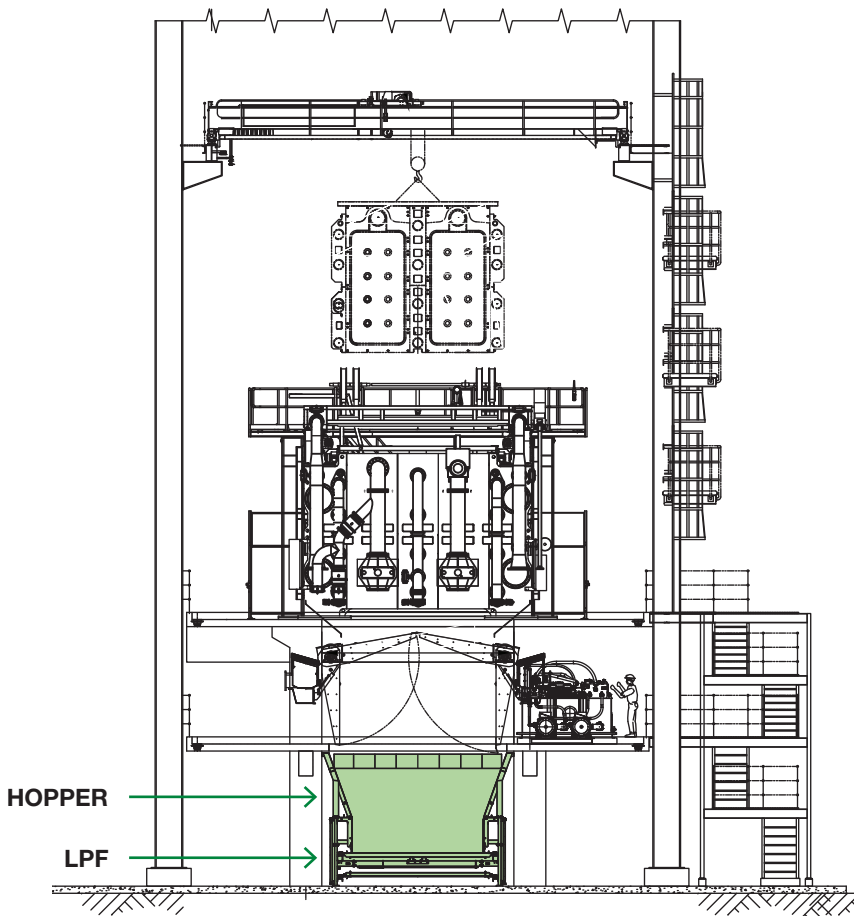
To complement this revolutionary machine, Transmin was tasked with designing a feeder system capable of seamlessly handling the large volumes of copper filter cake material discharged by our client's filter press at a copper mine in South America.

Key requirements included:

- ▶ Managing the extraordinary throughput of 117t per cycle.
- ▶ Ensuring even and consistent material discharge.
- ▶ Aligning with the commitment to sustainability and integration for remote optimisation.

The Solution:

To address these challenges, Transmin provided a custom-designed Low Profile Feeder (LPF) specifically engineered to meet the client's rigorous demands for efficiency, reliability, and adaptability.



The LPF efficiently handles the 552tph discharge rate while ensuring smooth material flow, critical for maintaining the press's operational efficiency.

The dual-speed functionality allows the feeder to adjust operations dynamically, maintaining throughput and avoiding material bottlenecks.

A belt width of 4m ensures adequate space for material distribution, while the cake-breaking grid prevents clumps from disrupting discharge flow.

The UHMW liners and full-length skirts enhance equipment longevity and reduce maintenance demands.

This project highlights Transmin's ability to deliver customised solutions tailored to the unique needs of industrial clients. The LPF has proven to be an indispensable component in managing the challenges of copper filter cake handling, setting a new standard for reliability, efficiency, and innovation in the mining industry.

For more information about Transmin's LPF solutions, visit Transmin's website or contact our team for a tailored consultation.



Key Features:

- ▶ **Dimensions**
A 40m long system with a 4m wide belt.
- ▶ **Lowest profile**
The lowest possible profile available in a high capacity feeder, typically no more than 1.0m from belt top surface to underside of footplates.
- ▶ **Dual-Speed Operation**
Operates in fast mode for cake drop and slow mode for controlled discharge.
- ▶ **Cake-Breaking Grid**
Prevents material clumps and ensures even discharge.
- ▶ **Robust Construction**
Includes D4 track chains, full-length skirts, UHMW liners, and a hopper with inlet chute extensions.



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