PATENTED TECHNOLOGY

AUMUND eLCC TECHNOLOGY

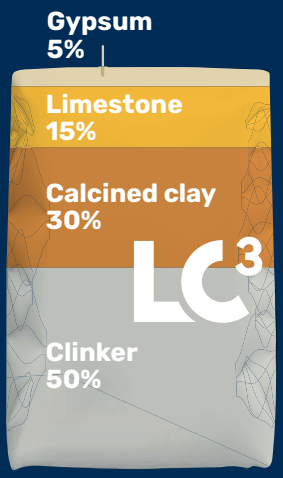
AN INNOVATIVE AND ENERGY EFFICIENT SOLUTION FOR THE PRODUCTION OF CALCINED CLAY

WE CONVEY THE **GREEN FUTURE**

LC³ CEMENT

A LOW CARBON ALTERNATIVE FOR THE CEMENT INDUSTRY

The cement industry faces unprecedented pressure to decarbonize, accounting for approximately 8 % of global CO_2 emissions. LC³ (limestone calcined clay cement) presents a transformative opportunity to reduce emissions and unlock economic benefits within existing industry infrastructure. LC³ is a blend approximately 50% clinker (compared to 95 % in ordinary Portland cement), 30% calcined clay, 15 % limestone, and 5 % gypsum which reduces carbon emissions in the cement production process by up to 40 % compared to ordinary Portland cement.

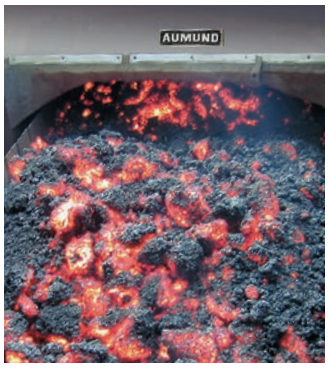


Source: lc3.ch

The synergy between calcined clay and limestone creates complex pozzolanic reactions, with calcined clay providing additional alumina that reacts with limestone to form carboaluminate phases, contributing significantly to strength and durability while maintaining comparable or superior performance characteristics to conventional cement.

AUMUND'S ELECTRIFIED LINEAR CALCINATION CONVEYOR (eLCC)

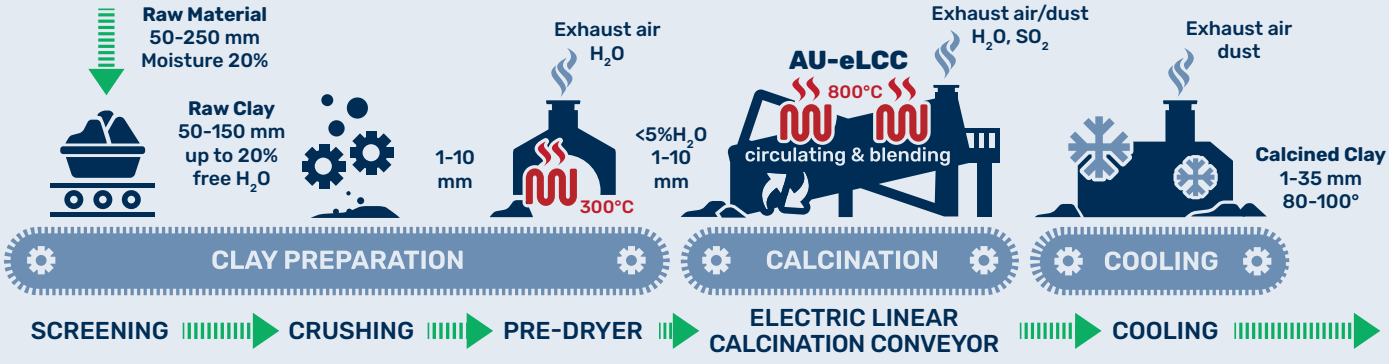
AUMUND'S ENGINEERING EXCELLENCE MEETS ENVIRONMENTAL RESPONSIBILITY



Building on more than two decades of expertise in conveying hot materials – including proven solutions like the KZB-S (up to 1,000 °C), BZB-H-I (up to 850 °C), and FPB-K (up to 850°C) – together with Holcim, AUMUND has developed the electrified Linear Calcination Conveyor, in short eLCC. The eLCC is a patented, energy-efficient solution for the production of calcined clay.

The eLCC technology addresses the critical challenge of clay calcination, which requires precise temperature control at 750-800 °C – significantly lower than traditional clinker production temperatures. This temperature reduction, combined with the eLCC's energy-efficient design, contributes substantially to the overall carbon footprint reduction achieved by LC³ cement.

CLAY CALCINATION WITH AUMUND ELECTRIFIED LINEAR CALCINATION CONVEYOR (eLCC)



TECHNICAL ADVANTAGES

THE eLCC DELIVERS SUPERIOR TECHNICAL PERFORMANCE COMPARED TO OTHER TECHNOLOGIES.

Advantages	Technical Solution
Highest energy efficiency	Very compact and insulated design combined with closely arranged heating elements in the calcination zone ensures optimal heat transfer and maximum efficiency.
Very flexible operation	Short start-up times enable flexible operation frequencies and easy, quick adaptation to operational requirements.
Easy capacity expansion	The modular system allows production capacity to be increased at any time simply by adding further eLCC modules.
Low operating costs	Only a minimal number of parts such as chains, rollers and sprockets require maintenance, which, based on AUMUND technology and experience, ensures long service life.
Semi-mobile design	The eLCC offers a semi-mobile design, allowing flexible installation directly at the clay deposit when located far from the cement plant. This setup significantly reduces transport costs and, thanks to its modular structure, the unit can be relocated easily whenever operational needs change.

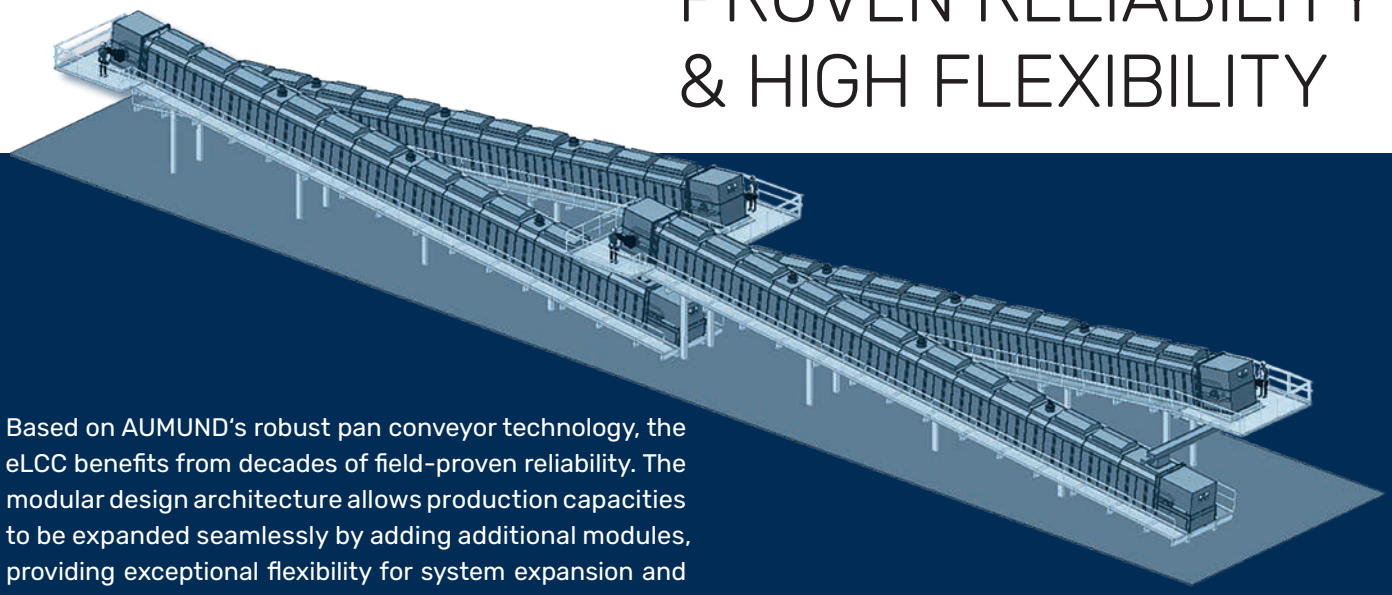
TECHNICAL DATA*

TECHNICAL REQUIREMENTS MAY BE ADJUSTED TO YOUR REQUIREMENTS

Production Capacity Clay t/h	Conveyor Length	Conveyor Width	Conveyor Speed	Heat Capacity
20	3 x 45 m	800 mm	0,1 m/s	8 MW
40	3 x 70 m	1,000 mm	0,1 m/s	16 MW
80	4 x70 m	1,400 mm	0,1 m/s	32 MW
100	4 x 70 m	1,600 mm	0,1 m/s	40 MW

*variations pending on raw material properties

PROVEN RELIABILITY & HIGH FLEXIBILITY



Based on AUMUND's robust pan conveyor technology, the eLCC benefits from decades of field-proven reliability. The modular design architecture allows production capacities to be expanded seamlessly by adding additional modules, providing exceptional flexibility for system expansion and long-term scalability as market demand for LC^3 cement grows. The system offers simplicity in operation while enabling fine-tuning through precise control of temperature and speed.

SUPERIOR ENERGY EFFICIENCY

The eLCC's specific energy requirement is significantly lower compared to alternative solutions due to its completely enclosed and insulated design. The compact heating chamber volume reduces heat losses substantially and enables rapid system startup, providing unprecedented operational flexibility for plant operators. This design philosophy aligns with the cement industry's need for responsive, efficient production systems.

SUSTAINBILITY IN FOCUS

CARBON-NEUTRAL OPERATION CAPABILITY

While the eLCC can accommodate various heating systems including ceramic gas burners, its elecric heating elements can be powered entirely by renewable energy sources such as wind or solar power.

This capability enables completely carbon-neutral calcination processes with zero direct CO_2 emissions, thus representing a fully sustainable cement production technology approach.

OUR SERVICE AND SUPPORT IS SPANNING THE GLOBE

A PARTNERSHIP YOU CAN RELY ON

The AUMUND Group operates Service Centres and Warehouses for spare parts in Germany, the USA, Brazil, Hong Kong, Saudi Arabia, and in Great Britain. Almost 60 dedicated Supervisors tend to clients' needs across the globe.

CONTACT: AUMUND FÖRDERTECHNIK sales@aumund.de

WE CONVEY THE **GREEN FUTURE**