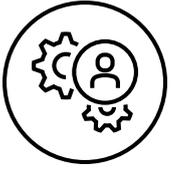


ALKON[®] FD INCREASES ALUMINUM PRODUCER'S EFFICIENCY

**CALDERYS' EXPERTISE, IN ADDITION TO THE
ALKON[®] FD TECHNOLOGY REDUCES DOWNTIME
AND ENHANCES SAFETY.**



BACKGROUND

Customers needs

The background situation

The conventional method for relining aluminum casthouse furnaces used to contain in-situ casting with gunning as back-up. This method took a lot of time to complete, and needed around 7 days of dry-out. This meant that the furnace was unavailable for a long period. The total scope for such a project used to take about 23 days.

The request from the customers

An aluminum customer in the UAE wanted to reduce both the refractory installation and the dry-out time, to optimize the operational workflow.



Calderys' global network of technical experts optimizes the operations of aluminum furnaces



CONCEPT

Calderys solution

Analysis of the customer request

The customer's goal to reduce installation and dry-out time pointed to the need for a faster, more efficient lining solution—one that minimizes downtime while maintaining quality and safety.

Description of the solution developed by Calderys

Calderys used a combination of materials to address the customers' concern:

- Precast, pre-fired (PCPF) blocks
- ALKON® FD
- Spraycasting products

This new approach helped reduce installation time and shorten the dry-out duration. This was not only time-saving, but also gave a commercial benefit to this customer. By reducing their downtime, the furnace could be back for production quickly.



Calderys has a full portfolio of products dedicated to aluminum contact, call the [ALKON® brand](#)



SUMMARY

Recap of the solution

Benefits brought by the solution

In general, the combination of PCPF blocks, spraycasting, and ALKON® FD products has reduced the total project time by 5 days, maximizing the furnace's availability for our customer and reducing safety risks through quick installation. In details, our solution brought the benefits in four aspects:

Safety:

- Reduced manpower needs lowered exposure to extreme conditions
- Precast hearth locks reduced on-site work by 25%

Sustainability:

- 40% less fuel required for dry-out, which represents a saving of 18 tons of CO₂
- Aluminum shuttering replacing plywood in casting panels for a more sustainable solution

Productivity:

- 25% overall reduction in relining time
- Increased furnace availability for production

Quality:

- PCPF blocks, manufactured in a controlled environment, ensuring consistent quality
- Modular design enabled easier repairs and long-term maintainability





RESULTS

Concrete benefits

Product presentation

ALKON® FD products are cement-bonded monolithics including the Fast Dry technology. They are specifically designed to line aluminum producers' furnaces. Fast Dry technology can also be applied to any industry using monolithics for their furnaces.

ALKON® FD products reduce customer furnace downtime and improve safety on their site. The products are engineered to remove free water efficiently from the lining without compromising product performance. They are suitable for installation in every part of the furnace.

Services - Expertise

With its deep technical expertise, Calderys team can provide tailored engineering and professional application support, ensuring smooth installation and dedicated monitoring and maintenance service. We are committed to provide hands-on service to deliver faster, safer, and more sustainable solutions to Aluminum customers.



THANK YOU FOR YOUR ATTENTION

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