



Burning of Clinker

DURATION

5 days

CONTACT HOURS

30

LEVEL

Intermediate

FEE PER DELEGATE

R15,000

The kiln as a chemical reactor: controlling the burning zone to make clinker of the quality you intended.

Everything upstream of the kiln is preparation and everything downstream is handling. This week is about the kiln itself: the reaction sequence through the preheater, calciner and burning zone, flame shape and its effect on the clinker, coating and refractory behaviour, and the control strategy that keeps a line stable. Fuel and combustion are treated in detail because they determine the flame, and the flame determines the clinker.

Available as classroom, live online, in house.

Who it is for

Kiln operators and production supervisors, process engineers, burner and combustion specialists, and refractory engineers.

What you will be able to do

- Follow the reaction sequence and the temperature profile producing it.
- Control the burning zone through fuel, feed and draught together.
- Shape a flame and understand its effect on clinker and coating.
- Diagnose rings, build ups and coating loss.
- Keep a line stable rather than continuously correcting it.

The outline

DAY 1

The reaction sequence

Drying, calcination and clinkering · Liquid phase and nodule formation · Temperature profile and residence time

DAY 2

Fuel and flame

Fuels and their combustion characteristics · Burner design and primary air · Flame shape, momentum and its effect

DAY 3

Control

Feed, fuel and draught as one system · Free lime as the control target · Stability, and the cost of constant correction

DAY 4

Coating and refractory

Coating formation and why it is wanted · Rings, build ups and blockages · Refractory wear and shell temperature

DAY 5

Problems

Volatile cycles: alkalis, sulphur and chloride · Dusty clinker and its causes · Upset recovery

What you leave with

- A kiln control strategy for your own line.
- A flame assessment and burner setting review.
- A build up and ring diagnosis guide.

Published dates

DATES	WHERE	FEE
23 to 27 November 2026	Durban, South Africa	R15,000
30 November 2026 to 4 December 2026	Windhoek, Namibia	R15,000
7 to 11 December 2026	Lagos, Nigeria	US\$1,500
14 to 18 December 2026	Live online	US\$995

Fees are per delegate and cover all course materials. Registration fees are arranged by the delegate. Reg

Register or ask a question

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