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CEMENT MANUFACTURING

Equipment and Process Functions in the Cementing Industry: Part (2)

DURATION	CONTACT HOURS	LEVEL	FEE PER DELEGATE
5 days	30	Intermediate	US$1,500

Part two: the pyroprocessing line. Preheater, calciner, kiln, burner and cooler.

The second part takes the hottest and most expensive equipment in the plant. It covers preheater cyclone design and the separation efficiency that governs it, calciner types and their combustion behaviour, the rotary kiln as a mechanical machine with tyres, rollers and a drive, burner construction, and clinker coolers with their recuperation duty. Mechanical condition is given real attention here, because a kiln out of alignment is a problem that takes a shutdown to fix.

Available as classroom, live online, in house.

Who it is for

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

What you will be able to do

- Describe the function and design logic of each pyroprocessing component.
- Explain cyclone separation efficiency and pressure drop.
- Assess kiln mechanical condition and alignment.
- Compare cooler types on recuperation and reliability.
- Relate an equipment condition to a process symptom.

The outline

DAY 1

Preheater

Cyclone stages, separation efficiency and pressure drop · Riser ducts and build up · Gas and material flow through the tower

DAY 2

Calciner

Calciner types and configurations · Combustion and residence time · Degree of calcination and its control

DAY 3

Rotary kiln

Shell, tyres, rollers and thrust · Drive and girth gear · Alignment, ovality and shell condition

DAY 4

Burner

Burner construction and nozzle arrangement · Primary air and momentum · Multi fuel capability

DAY 5

Cooler

Grate and planetary coolers · Recuperation efficiency · Snowman, red river and other cooler faults

What you leave with

- A pyroprocessing equipment register with functions and limits.
- A kiln mechanical inspection checklist.
- A cooler performance assessment.

Published dates

DATES	WHERE	FEE
23 to 27 November 2026	Accra, Ghana	**US$1,500**
30 November 2026 to 4 December 2026	Dubai, United Arab Emirates	**US$1,500**
7 to 11 December 2026	Cape Town, South Africa	**R15,000**
14 to 18 December 2026	Kampala, Uganda	**US$1,500**

Fees are per delegate and co
arranged by the delegate. Reg

Register or ask a question

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