

# Relocation, relocation

by InterCem,  
Germany & Switzerland

*In mid-2013, the InterCem group was awarded the supply, engineering and supervision contract of an almost-new cement grinding plant with new clinker storage facilities by CIMFASO in Burkina Faso. The new project, due for completion at the end of 2014, will not only help serve the domestic market, but its strategic location in the capital Ouagadougou will allow CIMFASO to access bordering countries.*

InterCem had originally supplied the complete grinding unit to a UAE-based company in 2008, but due to the onset of the global financial crisis, the plant was never put into operation and thus considered to be as good as new.

CIMFASO subsequently purchased the grinding facility which then had to be relocated in the Burkina Faso capital of Ouagadougou. This fairly central location was the preferred option due to its good infrastructure and access roads to Niger, Benin, Ghana, Côte d'Ivoire and Mali. The nearest local source of limestone is 400km away and therefore a grinding-only unit was the best approach.

## InterCem's scope

In mid-2013, InterCem was awarded the contract by CIMFASO for the supply of engineering, mechanical and electrical equipment, plus supervision for erection and commissioning of the plant.

Transportation of the mill equipment

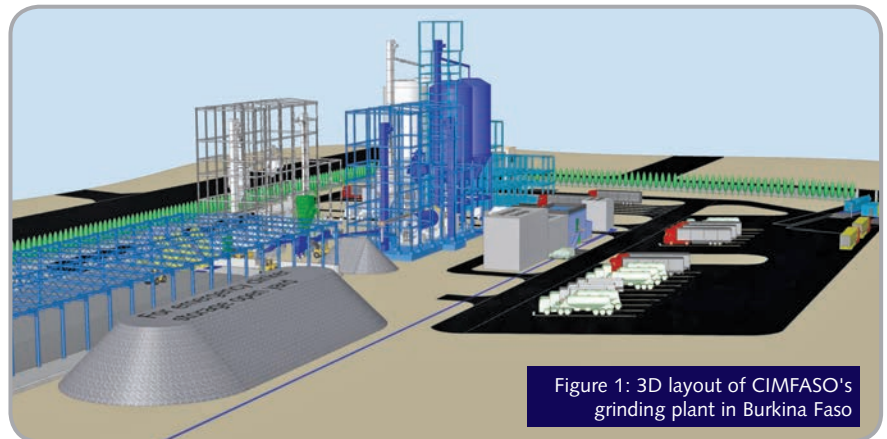


Figure 1: 3D layout of CIMFASO's grinding plant in Burkina Faso

from the UAE was undertaken in three months by InterCem.

The company is also carrying out new civil engineering work according to local site conditions based on the soil report, and is responsible for the automation and electrical systems.

The project involves the design of the complete steel structure for the

mill building and mild steel fabrication (including cyclones, the shaft for bucket elevator, chutes, ducts and flaps).

InterCem will further supply a new clinker silo storage shed (40m x 120m) with three discharge units, including the clinker transport system to the grinding unit as well as the steel structure and civil engineering.



Figure 2: loading of mill equipment in the UAE, September 2013

**Table 1: mill specifications and product expectations**

<i>Grinding system</i>	Closed-circuit ball mill with high-efficiency air separator
<i>Mill type</i>	Two-compartment ball mill $\phi 4.6\text{m} \times 13.5\text{m}$
<i>Mill internals</i>	First compartment is equipped with lifting liners to ensure powerful impact for coarse grinding. Second compartment is equipped with a three-step classifying liner system to ensure ball sorting with high fine grinding action.  The intermediate diaphragm allows material flow adjustment to optimise material level in both compartments. Intermediate and outlet diaphragm ensure maximum air ventilation.
<i>Installed mill power (kW)</i>	4500 central drive
<i>Separator type</i>	High-efficiency separator
<i>Product collection</i>	Direct separation by cyclones and air jet filter
<i>Product</i>	OPC
<i>Expected product fineness according to Blaine (<math>\text{cm}^2/\text{g}</math>)</i>	$3000 \pm 100$
<i>Expected output rate (tph)</i>	130



Figure 4: the new mill equipment arrives boxed up at Ouagadougou



Figure 5: mill foundation close to completion in April 2014

Meanwhile, gypsum will also be stored at the grinding facility for which, InterCem has supplied a small crusher unit.

**Project management**

InterCem is responsible for the project management which includes, upon the customer's request, helping to evaluate construction companies with a high-level of on-site management and experience in

French-speaking African countries.

"The main challenges of the project were to acquire the best erection equipment for the site, skilled staff and organisation of the teams," InterCem notes.

**Additional equipment**

A German packing plant manufacturer has been awarded the contract to supply a complete packaging plant as well as



Figure 3: mill equipment on site in Ouagadougou on 2 February 2014

the cement silos for the facility. Bucket elevators will serve the cement silos. These clinker silos range from 30,000t to a storage shed with dimensions 40m x 120m, including discharge systems.

**Completion target**

When fully operational the grinding unit will have an output of 130tph and a cement capacity of 0.7Mta. Clinker will be sourced globally and imported into the Abidjan port, Côte d'Ivoire, which is 1000km from Ouagadougou. Overland clinker deliveries will then be made by truck.

The plant will produce OPC under the CIMFASO brand to be sold mostly in 50kg bags. Commissioning is scheduled to take place in the final quarter of 2014.