



## Case Study:

# QUICKLIME SLAKING PLANT FOR WORLD'S LARGEST COPPER-COBALT MINE.

**Location:**  
Democratic Republic of the Congo (DRC), Africa

**Operation Type:**  
Copper, Cobalt Mine

**Equipment Solution:**  
Quicklime Slaking Plant

**Year:**  
2006

### Scope of Project:

Due to Transmin's broad base bulk bag knowledge, we were approached to design, engineer, fabricate and install a lime slaking system for the world's largest copper-cobalt resources located in southern Congo, Africa.

The client requested that Transmin would supply the whole lime slaking plant.

### The Solution:

Fabricated at Transmin's workshop in Malaga, it took 20 weeks for the Transmin team to build and factory test each piece of equipment before

it was shipped of to Durban and installed in the Congo.

The quicklime is delivered in 1 or 2t Bulk Bags and is lifted into any of the three bag breakers and then lowered onto their spike via the hoists.

The quicklime is transferred via a common screw feeder beneath each bag breaker to another screw conveyor which transfers the quicklime to a bucket elevator outside of the building. The bucket elevator lifts the quicklime into the 100m<sup>3</sup> silo for storage.

The quicklime is transferred out of the silo into the ball mill using bin activator, screw feeder, and vibrating conveyor.

Lime is then slaked via a ball mill (closed circuit) at a design rate of 11t/h.

A milk of lime (MOL) slurry of 20% w/w is produced and then stored in an agitated tank (by others) where it is then dosed into the plant.

The Lime Slaking System operates as required to ensure that the MOL tank remains sufficiently full.



### Benefits:

The benefits of using lime processing plants:

#### ► Processing

Slaking and grinding mills of the roller mounted or vertical type. Grind performance to suit client process requirements.

#### ► Receiving

Intake of lime via bulk bag or pressurised vehicle.

#### ► Storage

Single or multiple silos dependent upon site storage requirements.

#### ► Wetting

Pre-wetting prior to mill for control of dust.

#### ► Limestone

Separate limestone grinding facilities available.

#### ► Milk of Lime Storage

Tankage is either site built or supplied complete.

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