

PRESS RELEASE

Contacts:

Mitch Cosani, Business Development & Corporate Communications Manager, mitch.cosani@takraf.com

Marion Stölzner, Marketing Manager, marion.stoelzner@takraf.com

Innovative greenfields infrastructure and brownfields upgrades optimize material handling at CBG

TAKRAF's proud heritage in conveyor design showcased in bauxite expansion project.



An aerial view of the overall plant in Guinea with the wagon unloading station building from Phase 1 in the foreground.

Leipzig (Germany), May 2023: With a track record in designing and installing bulk material handling systems that spans more than 100 years, TAKRAF boasts a number of conveying ‘firsts’, from designing the longest single flight overland conveyor in Indian territory to the world’s most powerful (58 MW) conveyor system at Chuquicamata in Chile.

A commitment to innovation has also meant that TAKRAF’s product range is distinguished by the use of advanced technology. For example, TAKRAF is one of the few global conveyor system manufacturers with references in the use of advanced gearless drive technology. This technology represents a major step forward,

as it significantly reduces both the number of main wear parts, which results in increased efficiency and reliability, as well as the drive system's footprint and emissions.

Supplying belt-conveying technologies for applications from mining through to ship loading and unloading, TAKRAF leverages its extensive experience as a bulk materials handling specialist to seamlessly integrate its conveying systems into complex mining operations and downstream materials handling solutions. In addition, with its depth of expertise in selecting and designing conveying technologies specifically tailored to the client's site requirements, TAKRAF provides safe, efficient and reliable systems that both lower the Total Cost of Ownership (TCO) and reduce environmental impact.

CBG Expansion – safe project delivery in a complex environment

TAKRAF's standing as a complete bulk material handling solutions provider and its commitment to providing innovative technological solutions to meet client needs is demonstrated in a major contract for Phase 1 of the Compagnie des Bauxites de Guinée (CBG) bauxite expansion project in Guinea.

The EPC project for Phase 1 aimed to increase bauxite exports from 13.5 mtpa to 18.5 mtpa and included the delivery of a greenfield wagon unloading and primary crushing station, as well as a secondary crushing station and a complex brownfield conveyor system within existing facilities.

Successful delivery and operation of the unloading station was particularly noteworthy as this structure is entirely constructed from steel (and not concrete, as is usually the case). This presented a major challenge engineering wise, considering the high dynamic loads and forces resulting from the continual passage of trains that TAKRAF's specialized team of engineers had to overcome.

Further to the original EPC contract for Phase 1, TAKRAF was awarded an important conveyor system contract that was brought forward from the planned Phase 2 of CBG's bauxite expansion project. This fast-track EPC conveyor project, which is nearing completion, covers engineering, design, supply, construction and commissioning, including civil works, of two replacement conveyors to cater for the planned Phase 2 expansion, which aims to increase bauxite production capacity to 26.5 mtpa.

Both conveyors, with capacities of 7,000 t/h and 3,600 t/h respectively, have been supplied by TAKRAF as complete new installations from head to tail end, complete with:

- New take-up towers and counterweights
- New Variable Frequency Drives (VFDs) located in new E-houses at 2 m elevation
- Interfaced control systems
- Dust suppression systems at loading points and head chutes

Product range

TAKRAF's product range offers conveying capacities from 100 t/h for small material handling applications up to 50,000 t/h for the handling of overburden in massive mining applications, and conveying distances that range from short distances up to approximately 20 km, for a single flight, in length.

Typical belt conveyors applications include:

- Belt conveyors for within the pit or "mining" applications
- Belt feeders/feeder conveyors for hopper discharge
- Boom or intermediate conveyors in stockyard machines and/or within ship loading and/or unloading facilities
- In-plant conveyors
- Tube conveyors
- Overland conveyors (stationary and shiftable) with or without horizontal curves

Innovation out of tradition – It pays to talk to a specialist!

About TAKRAF Group

TAKRAF Group, through its established and well-known brands, TAKRAF and DELKOR, provides innovative technological solutions to the mining and associated industries. With experience acquired over more than a century, the Group is well positioned to provide equipment, systems and services that best satisfy its clients' mining, comminution, material handling, liquid/solid separation and beneficiation requirements. Servicing owners and operators around the world, TAKRAF Group's engineered solutions are customized to the unique project requirements and are aimed at lowering the total cost of ownership and reducing environmental impact by improving efficiency with safe and reliable equipment. For further information, visit www.takraf.com or, e-mail info@takraf.com.



Caption: A very undulating terrain typified the path of the 19 km overland conveyor moving bauxite ore from the mine to the Utkal alumina plant in India



Caption: Advanced gearless drive technology was applied in the design of the world's most powerful conveyor system at Chuquicamata in Chile.



Caption: First ore conveying on the 7 km long TAKRAF gearless underground conveyor system at Chuquicamata in Chile.