Nidec
All for dreams

Case study
Conveyor automation and drive system
Russia

Project Summary

Application: Open-air conveyor for cement plant

Components

- Automation and drives
- 3 x 450 kW GT3000

Nidec's role

Nidec Industrial Solutions provided the automation system and drives for conveyors of a cement plant in Russia. As a trusted mining partner, Nidec helped the customer to meet targets of optimized productivity and minimized operating costs. The ARTICS automation suite supports the shortest possible project start-up and state-of-the-art performance for the entire lifecycle. The GT3000 drive, developed primarily for heavy duty applications, is one of the most reliable solutions for motion control.

The Challenge:

Nidec had to contend with 1 Long belt conveyor - Fixed Length: 5163 m - crossing a river with a 'monkey bridge' structure. The customer required rugged and reliable equipment to ensure optimal performance of the conveyor for the entire lifecycle. Nidec components and systems helped to provide significant energy savings without a reduction in delivered power and reduced both the cost and time required for maintenance operations.

The Solution:

The motors of the conveyors are controlled by Nidec GT3000 drive inverters. They are completely integrated with the ARTICS automation suite which gives the customer detailed diagnostics to reduce excessive electrical downtime, improve mechanical reliability, optimize operator productivity and improve plant production. The sophisticated ARTICS control characteristics help to meet these targets and obtain the maximum precision in conveyor speed control. The easy-to-use HMI provides a clear view of the installation and a fast visualization of defaults.
This allows simple product monitoring and motor sharing regulation according to the load on the conveyor