



White Paper

Belt Conveyor Drive Control: How to ensure Sustainability and Energy Efficiency

Edited by on 8. Feb. 2024

[Published in bulk solids handling, Vol. 31 \(2011\) No. 2](#)

Wherever energy savings, availability, reliability, reduced equipment wear and difficult terrain are an issue, speed controlled belt conveyor drive systems are among the most economical drive options for large belt conveyors.

Belt conveyors have proven to be the most efficient and cost-effective method of moving bulk solids in mining operations. For decades the AC wound rotor motor system with starting resistors was the drive solution for large scale fixed speed conveyor systems. These robust and high performances drives have been implemented successfully in numerous conveyor applications world wide and were state of the art during those days.

Today, innovative and efficient AC drives are the basis for advanced conveyor drive systems.

But to achieve an advanced conveyor drive system it is not sufficient to just pick an AC drive system and connect it to the mechanical components – it is rather more than that. It is the selection of the right AC drive system based on the requirement of the conveyor application and the technology control system which forces the AC Drive System to behave in a way which suits all the requirements of belt conveyors most. This article describes the advantage of innovatively designed conveyor control systems in combination with an innovative AC drive

system. The Simine CON Solution from Siemens, as part of the product family Simine, is the completely integrated solution for conveyor applications and takes care regarding energy savings, availability, and reduced equipment wear and tear.