



Product News

Voith's BeltGenius ERIC Digital Twin System Prototype passes first Milestone with Mining Customer

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With BeltGenius ERIC from Voith, plant downtimes are significantly reduced by running digital simulations of entire conveyor systems. (Picture: @Voith GmbH & Co. KGaA)

The project has now reached a relevant milestone, with all the key figures announced at the beginning of the prototype run having been realized for the customer since the start of the project. BeltGenius ERIC analyzes and compares on the basis of standardized values how respective belt conveyor systems of a

mine perform. By means of these key figures, Voith is able to identify physical deviations of the belt system, which serve as an early indicator of failures. In addition, the mine operator is given a starting point for determining how efficiently the respective system transports material. With the help of this key figure, conveyors can be compared with each other.

In this case, the newly defined data made it possible to take measures that led to improved uptime and reduced energy consumption. The prototype is used in a belt conveyor system with a capacity of 37,500 tons per hour and a speed of 7.5 meters per second. The belt of the system is 2.2 kilometers long and 2.7 meters wide and is completely digitally mapped by the system.

"BeltGenius ERIC has achieved all planned key figures at the customer's site," says Dr. Manfred Ziegler, Business Development Manager of Belt Conveyor Systems at Voith. "The exact image of the belt conveyor system generated by the digital twin enables us to create further added value for our customers and thus maximize productivity."

Next Level of Condition and Efficiency Monitoring

Voith BeltGenius is the product family used for monitoring, benchmarking and optimizing belt conveyors and conveyor systems. BeltGenius ERIC is a digital twin of the conveyor belt. It processes sensor data in real time to calculate the Performance Indicator of the respective conveyor belt and to point out possibilities for performance improvement.