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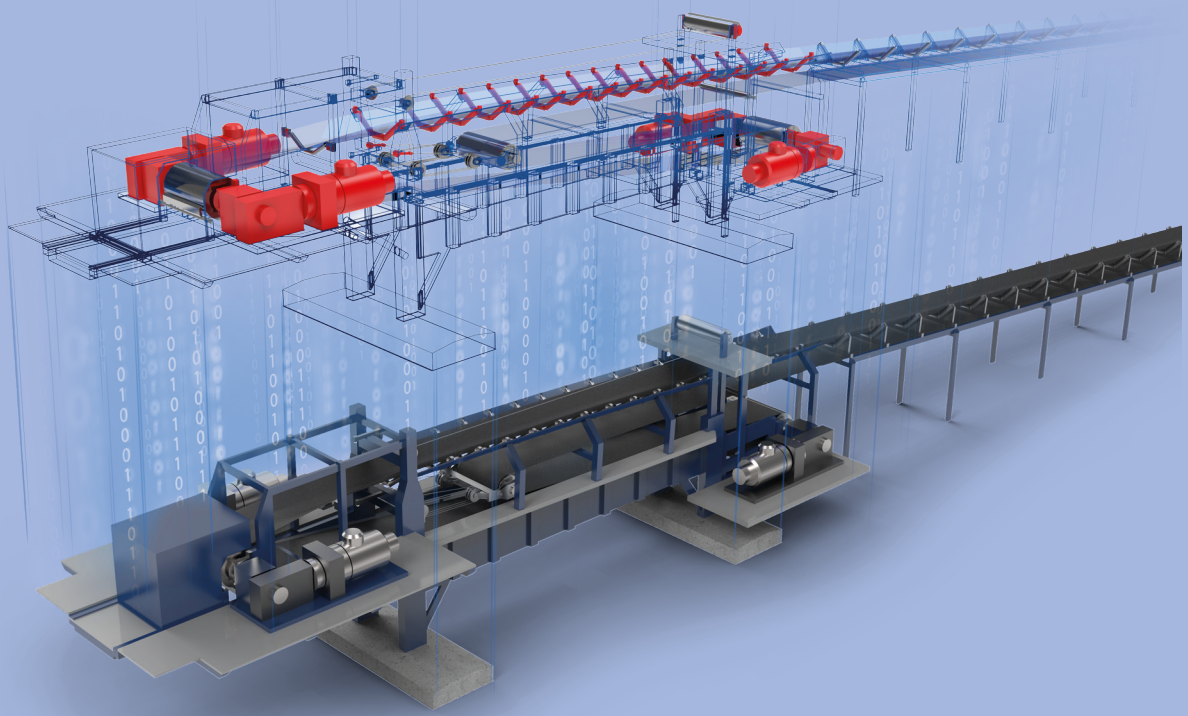

Product datasheet

Digital Twin for Belt Conveyor Systems

The foundation to futureproof conveyor operations

Our Digital Twin for Belt Conveyor Systems is a sophisticated mechanical simulation that models the entire conveyor, including every relevant system component, such as rollers, take up system, the belt itself and many more.

Benefits

- Increase efficiency and energy savings
- Reduce in unplanned downtime
- Extend component service life
- Maintenance assistance

Optimise belt conveyor operations with a digital perspective

You can't play 'trial and error' with your conveying system. But with a digital representation of that system, you can test ideas, work out bottlenecks and optimise operations and maintenance procedures. Our digital twin technology takes live data measurements and provides real-time feedback on the compatibility of the operating conditions of every major belt conveyor component, so you'll know exactly what works before you put it into practice.

FLS

How we set up a digital twin for your belt conveyor

1. **Installation** of required hardware, such as additional sensors, LAI, PLC and setup of customer specific cloud environment	→	**Technical readiness**
2. **Collection** of all technical design features of the real conveyor system to be included in the model.	→	**Conveyor design information and documentation**
3. Mechanical **modelling** of each component by our conveyor experts in our digital twin software	→	**Design based Digital Twin model**
4. Initial simulation and **calibration** of digital twin model to ensure design and reality (PLC data) are in scope	→	**Fully calibrated Digital Twin model**

Features

1. Continuous data logging for trend and root cause analysis
2. Compares live machine data like power demand with simulated data based on the conveyor's design
3. Real-time monitoring and warnings of problematic operating conditions that may reduce the service life of specific conveyor components like belt splices, rollers and many more
4. Online conveyor performance dashboard and customised component specific dashboards
5. 'Remaining useful life' estimation for relevant components

Based on these valuable insights, the right measures can be defined and implemented to optimise operations and leverage unused reliability, performance or energy saving potentials.

Example of a dashboard summary

FLSmidth A/S
2500 Valby
Denmark
Tel. +45 3618 1000
info@flsmidth.com

www.flsmidth.com

FLSmidth Inc.
Salt Lake City Operations
Midvale, UT 84047-5559
USA
Tel. +1 801 871 7000
info.slc@flsmidth.com