RIB

Use Case

Enhancing Quality Management and Efficiency in Precast Concrete Manufacturing

Enhancing Prefabrication Efficiency with RIB MES

1. Challenge

A precast concrete manufacturing plant is aiming to elevate the quality management of their production process, reduce waste, and minimize rework costs. In pursuit of these goals, they have opted to implement an innovative solution that combines the capabilities of RIB MES to enable both RIBs Quality Management solution and beamionics CHEKKER imaging technology—a comprehensive solution for prefabrication management.
The primary objective is to streamline quality management, ensure consistency in production quality, and drive efficiency gains across the entire manufacturing process, from planning to delivery.

2. Solution

The integrated solution the following components:

Digital Quality Management with RIB MES and CHEKKER:

The precast plant leverages CHEKKER's technology to implement a seamless-connected production software that employs pictures and videos to enable RIB MES quality management. This involves automated picture documentation, allowing for detailed visual records of critical tasks and quality checks.
Automated Picture Documentation (beamionic): The implementation of high-definition 4K cameras at various production stations enables the creation of detailed picture documentation. These cameras capture images automatically, comparing before-and-after states, and store the data in a secure cloud-based documentation repository.

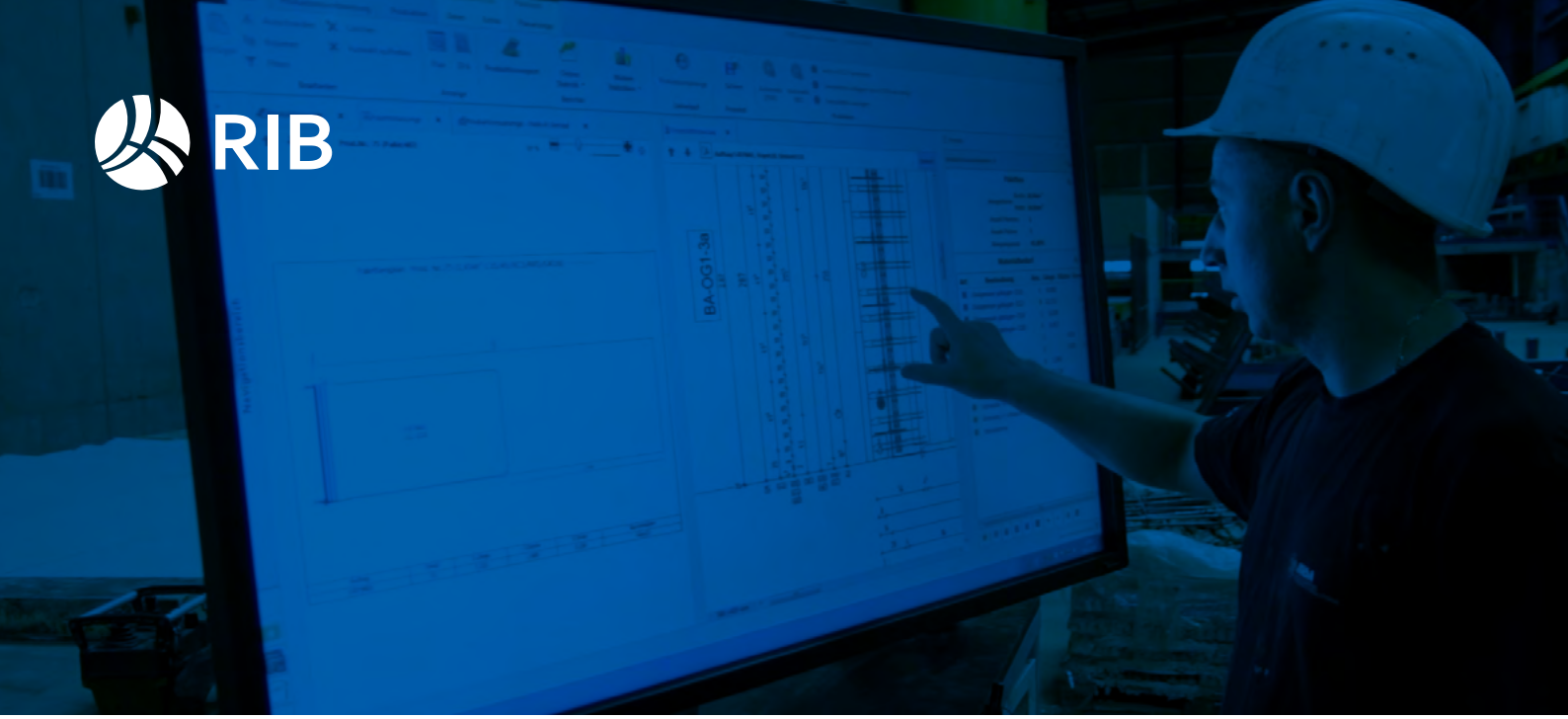
Flexible Quality Checks

RIB Quality Management provides multiple quality check options. Cameras stationed at key points inspect stationary single elements. Quality protocols enable sample testing of single elements and entire production stacks. A mobile system is available for quality checks using smartphones and tablets.

Quality Tracking

The software seamlessly integrates quality checks with the existing logistics system, facilitating tracking of elements and stacks. Workers across different stations can access the quality check history performed on individual components or stacks.

Quality checks become an integral part of the production process. Critical stations demand successful quality checks for production continuity. Production halts until corrective actions are taken if quality standards are not met.Benefits of a Smart Factory



3. Benefits

Enhanced Quality Assurance
The system ensures consistent quality levels throughout production, minimizing defects and rework.

Analysis & Reports
The quality management process feeds into the master computer system, generating holistic and tailored reports. These reports drive continuous improvement in both production and quality management.

Efficiency Gains
Automated picture documentation and quality checks expedite processes and reduce manual intervention.

Real-time Monitoring
Quality tracking and integration enable real-time monitoring and intervention when needed.

Cost Reduction
Reduced waste and rework costs due to improved quality management.

Data-Driven Insights
Analysis and reports offer insights for optimizing both production and quality management practices.

4. Conclusion
Through the strategic integration of RIB MES software to manage both CHEKKER as well as RIBs own solutions, the precast concrete manufacturing plant initiates a profound evolution towards amplified quality management, diminished waste, and heightened production efficiency. This comprehensive fusion of RIB technologies underscores the plant's unwavering dedication to advancing industry benchmarks, while simultaneously embracing avant-garde solutions that catalyze sustainable expansion and progress.