

FIBERVIEW

Fiberview – The System for Inline Fiber Quality Control
and Refiner Optimization



GreCon®

Automatic and Reliable Monitoring of the Fiber Quality

The Surface Inspection System FIBERVIEW inspects the fiber quality inline on the basis of the number and size of shives, thus ensuring a continuous, consistent monitoring of spread fibres in the MDF panel production. Monitoring of tolerance limits, reports and statistics allow detailed conclusions of the upstream production process.

The fiber mat is inspected by a camera system after the pre-press across a width of about 400 mm. Constant measuring conditions are created by automatic height adjustment of the camera and illumination unit including light regulation, independent of panel type and ambient conditions. The shives are automatically detected and classified by three image processing steps. This process is accomplished continuously - usually every 3 seconds - during the production so that representative information on the fiber quality is available in real time. And for the first time it is possible to evaluate the refining process objectively. The energy consumption of the refiner can be optimized depending on the required fiber quality. For example, the process can be directly influenced by changing the distance of the refiner discs, thus reducing energy needed to produce optimal sized shives.



Design and Construction of the System

The measuring system is a solid, closed frame construction.

The visual field of the camera is protected from dirt and dust by a tube.

The entire camera and illumination unit automatically adjusts to changing working levels depending on the mat height.

Changes in light intensity of the fiber mat due to different wood types, mixtures, changes in moisture or cooking conditions are automatically compensated.

Software Functions

■ Software

The visualization software of all GreCon measuring systems is based on Windows.

■ Visualization

The core of the software package is the visualization software. It records, stores and graphically represents all measured data. The simple menu structure, which is identical for all GreCon measuring systems, provides intuitive and user-friendly operation.

■ Database

The database stores the measured values, thus allowing the operator to call up all events from history for analysis at any time.

■ Reporting

Using special software, individual reports can be generated from the database. Available reporting types are time-related reports, such as shift or monthly reports, and order-related reports that can be selected according to requirements.

■ Network Connection

For the data transmission to higher-ranking process control systems, different network connections, such as OPC, are available.

Your Benefit



- Reliable, objective and representative evaluation of fiber quality
- Control and optimization of the refining process
- Quality assurance and reduced customer complaints
- Reduced energy consumption by the refiner

Service

GreCon measuring systems are equipped with GreCon online support SATELLITE.

This provides safe, simple and fast remote support when there is trouble or to check the system. Each online support is logged and stored in the system's history.

Technical Specifications

- Inspection width 400 mm (16 inch) with one line-scan camera
- Scanning directly after the pre-press
- Resolution 100 µm up to a speed of 84 m/min
- Automatic height tracking

- Automatic regulation of light intensity
- Scaling of the number of shives per size class on a reference surface of 1 m², for example

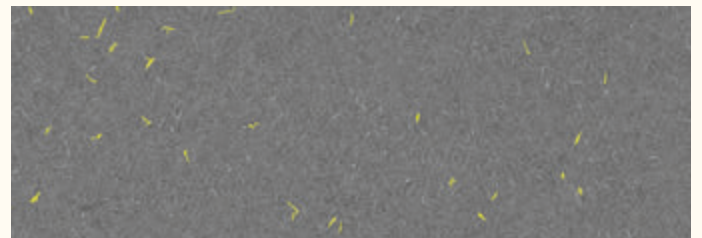
Applications

In the wood based panel industry, the FIBERVIEW is used for the production of fiberboards and installed directly after the pre-press.

Fiber mat



Fiber mat with identified shives



Why GreCon



- Customer-specific system design
- High innovative capacity: more than 10 % of the employees work in the R & D division
- Worldwide customer service network: more than 80 service technicians on duty worldwide
- Efficient sales network: represented in more than 35 countries
- High expertise: more than 40 years of experience in the measuring technology sector



OUR HEADQUARTERS AT ALFELD - BUILT BY WALTER GROPIUS IN 1911

GreCon

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