

CS 5000

Inline Weight Measurement with
the Continuous Board Scale



GreCon®

Continuous Monitoring of the Material Flow to Assure the Product Quality and to Optimize the Material Consumption

The Inline Continuous Board Scale CS 5000 makes automatic monitoring of the material distribution and the panel weight possible. The GreCon Continuous Board Scale CS 5000 is ideal for production lines with very high production speeds and in limited space conditions. Contrary to the usual board scales using weighing tables, the CS 5000 shows the weight distribution within the measured panel across production. The use of the Continuous Board Scale CS 5000 in endless production or in the measurement of single panels is possible.

Using the optional link to a GreCon thickness gauge, the average raw density and its distribution within the panels can also be calculated and used to optimize the process.

Measuring Principle

The continuous board scale operates in a non-contact way. For measurement, the material to be weighed is penetrated by X-rays. Depending on the material quantity and the specific weight of the material, the radiation intensity measured by the sensor changes. This is the measure for the weight per unit area (kg/m^2).

Software Functions

Software

The visualization software of all GreCon measuring systems is based on Windows. The software of the CS 5000 consists of the following program modules:

Network Connection

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

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, makes intuitive operation possible. Clear information and graphics enable the operator to quickly and effectively adjust the running production process.

Recipe Management

This is a product database in which different panel types and production parameters for the system can be stored.

Database

The database stores the measured values and provides a function to export them to other file formats for further processing and evaluation. A uniform data structure provides easily accessible data for process control systems.



Your Benefit



- Prevent manufacturing faulty panel weights
- Assurance of product quality and material consumption optimization
- Monitoring of material distribution and panel weight on a continuous basis
- Ideal for high production speeds
- Installation in limited space possible (e.g. press extensions)
- Calibration with homogeneous test samples allows precise measurements

Service

Online Support

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

- Supply voltage 230 V / 115 V
- Frequency 50 Hz / 60 Hz
- Power consumption 500 VA
- Compressed air supply 6 bar
- Measuring range 2 to 40 kg/m² (0.4 to 8 lbs/ft²)
- Transport speed max. 120 m/min
- Number of measuring tracks 1 to 10



- X-ray tube max. 50 kV at 1 mA
- Repeating accuracy $\pm 10 \text{ g/m}^2 (\pm 1 \sigma)$
- Measuring resolution better than $\pm 20 \text{ g/m}^2$
at 40 kg/m²
..... better than $\pm 5 \text{ g/m}^2$
at 2 kg/m²

Calibration

Calibration is done outside the material flow and allows precise measurements thanks to homogeneous test samples. Additionally, the CS 5000 is equipped with a calibration check, which ensures stable measurements.

References and Applications

- Wood based panels: before or after cross cut saw
- Insulating material: hot end or cold end
- Electrical insulation material (transformer board): after the press
- Wheat straw chips: after the press
- Plastic granules: after the press
- Machined car parts: after the press

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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