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# GreCon

Inline Weight  
Measurement with  
the Continuous  
Board Scale



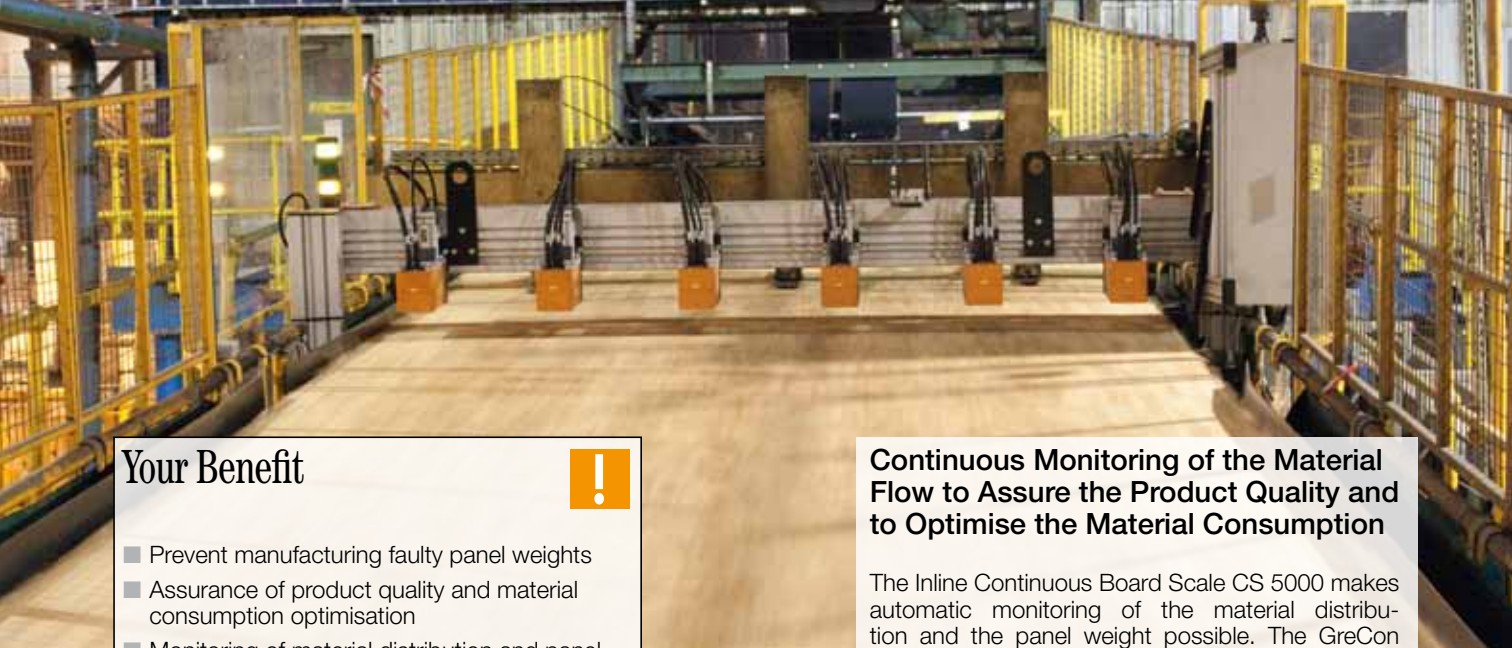
GreCon  
Measuring  
Technology

GreCon  
Fire  
Protection



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TEMSOL  
CS 5000



## Your Benefit



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

## Continuous Monitoring of the Material Flow to Assure the Product Quality and to Optimise 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 optimise the process.

## Why GreCon



- Quick and timely recognition of weight deviations
- Clear display of the effects of changes in the production
- Display of optimisation potentials
- High accuracy and reliable measured values
- Flexible use with various products
- Reduction and elimination of rejects
- Expandable and intergration of other systems possible (e.g. a thickness gauge to evaluate the raw density)



## 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 ( $\text{kg}/\text{m}^2$ ).

Visualisation of the CS 5000



## Software Functions

### ■ Software

The visualisation 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.

### ■ Visualisation

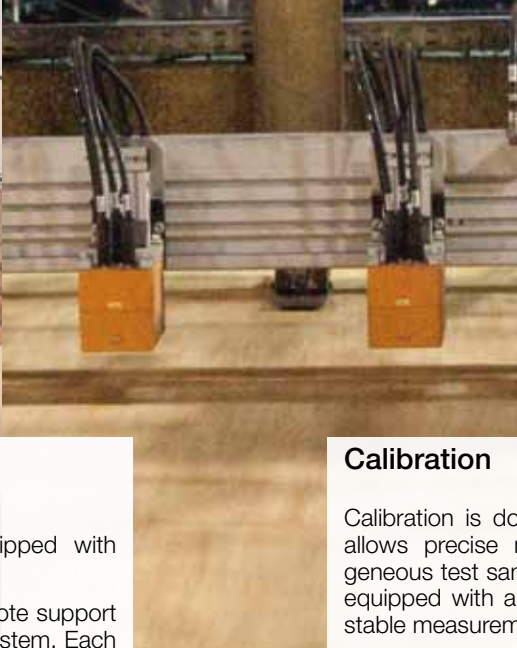
The core of the software package is the visualisation software. It records, stores and graphically represents all measured data. The simple menu structure, which is identical for all GreCon measuring systems, makes intuitive operation possible. Clear information and graphics enable the operator to quickly and effectively adjust the running production process.

### ■ Recipe Management

This is a product database in which different panel types and production parameters 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.



## 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

- Mains 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/m<sup>2</sup> (0.4 to 8 lbs/ft<sup>2</sup>)
- Transport speed ..... max 120 m/min
- Number of measuring tracks..... 1 to 10
- X-ray tube..... max. 50 kV at 1 mA
- Measuring accuracy ..... ± 3.5 % at 2 kg/m<sup>2</sup> (0.4 lbs/ft<sup>2</sup>)  
± 0.2 % at 40 kg/m<sup>2</sup> (8 lbs/ft<sup>2</sup>)

Deviations on demand

## 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