

BWS 5000

Inline Weight Per Unit Area Scale
with X-Ray Technology



GreCon®

Continuous Monitoring of the Material Flow to Homogenize Production Processes and to Optimize the Material Consumption

Fluctuations in the material distribution cause increased production costs and reduced quality. The Inline Weight Per Unit Area Scale BWS 5000 allows automatic monitoring and regulation of material distribution. The system keeps the fixed weight per unit area in the measuring position, even with changing wood assortments and different chip sizes. A visualization computer shows the measured values and provides an easy parameterization of the system. The BWS 5000 is installed directly in the forming station or at the dosing or forming belt. Special features of this system are minimal space, high measuring accuracy and unaffected by surroundings, such as dust, vapour and high temperatures.

Compared with other measuring methods, the advantage of the BWS 5000 is that even minor fluctuations in the material distribution can be recognized and automatically compensated.

Measuring Principle

The weight per unit area scale works in a non-contact way. The measured material is penetrated by X-rays. Depending on the amount of material and the specific weight of the

material, the radiant intensity measured by the sensor is changed. This is the measure for the weight per unit area (kg/m^2 / lb/ft^2). Different measurement transducers are available, depending on material structure and installation place.

Interfaces

The weight per unit area can be automatically regulated by changing the speed of the forming or dosing belt. For this purpose, an analog output signal is provided. Alternatively, voltage-free relay outputs are available for the regulation of the material quantity with height-adjustable rakes.

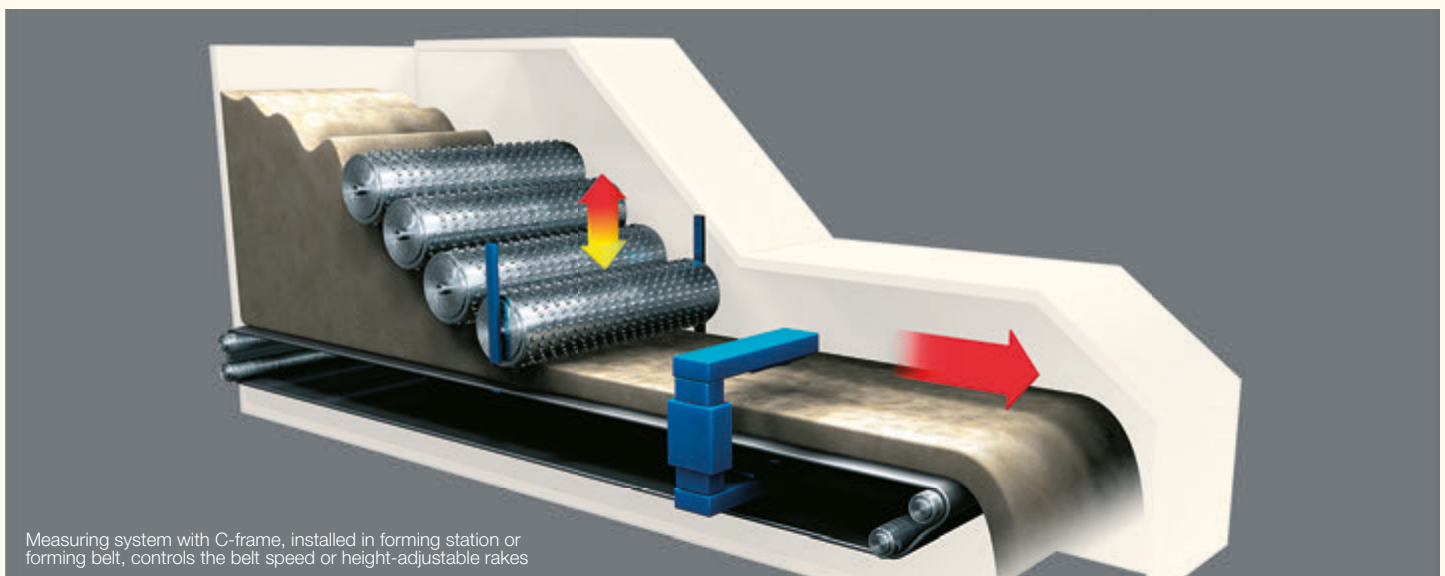
Software Functions

Software

The visualisation software of all GreCon measuring systems is based on Windows. The software of the BWS 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.



Your Benefit



- Stable and constant material flow of a variable wood mixture = material saving
- No additional forming belt scale required
- Non-contact measurement
- Monitoring of the material distribution
- Calibration with homogeneous test samples ensures precise measurements

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.

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 (90 psi)
- Measuring range 2 to 40 kg/m² (0.4 to 8 lbs/ft²)
- X-ray tube max. 50 kV at 1 mA
- Repeating accuracy ± 10 g/m² (± 1 σ)
- Measuring resolution better than ± 20 g/m²
at 40 kg/m²
..... better than ± 5 g/m²
at 2 kg/m²

Calibration

The BWS 5000 is equipped with a calibration function. Calibration is done outside the material flow and allows precise measurements due to homogeneous test samples.

Applications

The BWS 5000 is used in forming stations or at dosing or forming belts of wood based panel productions as well as for the production of insulating materials or machined car parts.

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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