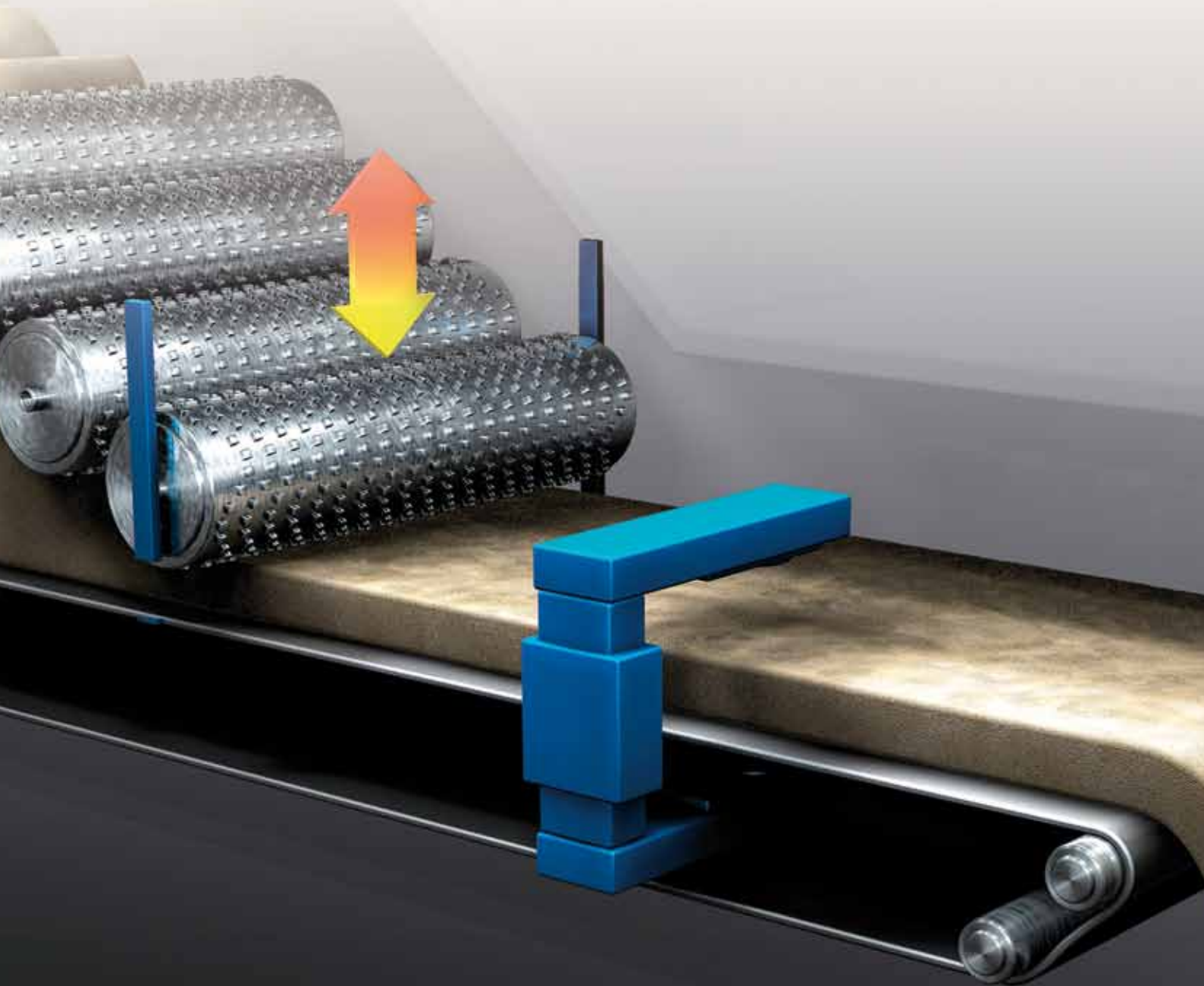


**BWS 5000**

Inline Weight Per Unit Area Scale  
with X-Ray Technology



GreCon®

# Production Control with the GreCon Weight Per Unit Area Scale

Exploit all reserves of your production, homogenise your process, increase the availability of your equipment and increase your profit.

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 the 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 visualisation computer shows the measured values and makes an easy parameterisation of the system possible. The BWS 5000 is installed directly in the forming station or at the dosing or forming belt. Special features of this system are minimal need of space, high measuring accuracy and indifference to interfering surroundings, such as dust, vapour and high material temperatures.

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

## Measuring Principle

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The weight per unit area scale is working in a non-contact way. The material to be measured is penetrated by x-rays or radioactive beams. 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 ( $\text{kg/m}^2 / \text{lb/ft}^2$ ). Different measurement transducers are available, depending on material structure and installation place. A high-precision x-ray system is used for applications in the wood based industry. For the penetration of mineral products, such as gypsum and cement board or mineral wool mats, a radioactive source is required.



## Interfaces

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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

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

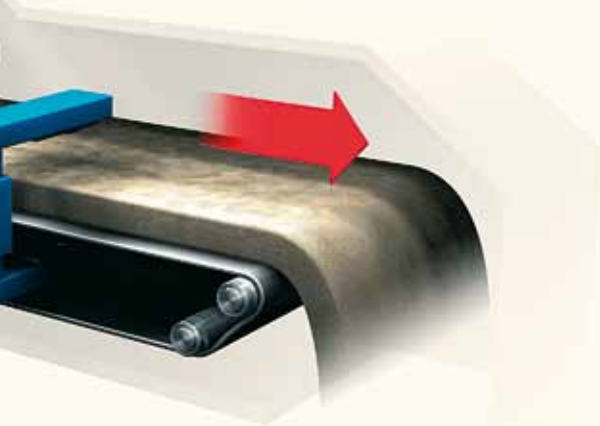
### ■ Recipe Management

This is a product data base in which different panel types and production parameters, which are relevant for the measuring system, can be stored.

### ■ 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 an intuitive operation possible. Clear information and graphics enable the operator to quickly and effectively adjust the running production process.

Measuring system with C-frame, installed in forming station or forming belt, controls the belt speed or height-adjustable rakes



■ SQL Data Base

This data base 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.

## Network Connections

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

## Online After-Sales Service

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GreCon measuring systems are equipped with a modem or VPN, which provides a direct connection to GreCon service when needed. Support, changes in parameters, software updates and trouble shooting are all possible online.

## Why GreCon



- Installation directly in the forming station to regulate the material flow
- Installation after the forming station to measure the whole mat resp. to adjust the scalper
- Reliable measured values thanks to new calibration method
- Flexible use with various product alternatives
- Low maintenance required

## Your Benefit



- Stable and constant material flow even in case of a variable wood mixture = material saving, homogenisation of the longitudinal profile
- No additional forming belt scale required
- Non-contact measurement without any impact on the measuring value quality caused by rough surroundings
- Run-in time optimisation
- Fast amortisation

## Technical Specifications

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- Mains voltage: ..... 230 V / 115 V
- Frequency: ..... 50 Hz / 60 Hz
- Power consumption: ..... 500 VA
- Compressed air supply: ..... 6 bar / 90 psi
- Compressed air consumption: ..... approx. 5 l/min  
0.18 cfm
- Measuring range: ..... 0 to 40 kg/m<sup>2</sup> / 8.19 lb/ft<sup>2</sup>
- Measuring accuracy with x-ray tube: ... ± 0.25 % of the end value of the measuring range .....(max. 30 g/m<sup>2</sup> / 6.1 lb/ft<sup>2</sup> attainable)
- X-ray tube: ..... 33 kV, max. 1 mA
- Measuring accuracy with radioactive source: ± 0.5 % of the end value of the measuring range (max. 50 g/m<sup>2</sup> / 10.24 lb/ft<sup>2</sup> attainable)
- Radiation source: .....Americium 241 (300 to 500 mCi)



OUR HEADQUARTERS AT ALFELD - BUILT BY WALTER GROPIUS IN 1911

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