Fagus GreCon

WEIGHT PER UNIT AREA MEASUREMENT

ENSURING QUALITY AND CONSERVING RESOURCES

OPTIMAL PRODUCTION CONTROL

WEIGHT PER UNIT AREA MEASUREMENT – THE BASIS FOR COST REDUCTION

Discovering quality deviations early on, effectively counteracting them, and optimising use of resources are just a few of the challenges we can help you overcome with our measurement technology systems.

Uniform material distribution is decisive not only for product quality but also for resource-saving use of raw materials. Systems for measuring weight per unit area and material distribution, therefore, make a considerable contribution to the economic efficiency of production. GreCon weight per unit area measuring systems deliver highly accurate and reliable values for the weight per unit area distribution, making them available to you for quality assurance and production optimisation.

Different transducers are used depending on the material and measuring task. They are optimised for the product to be measured and will cover both light and heavy basis weight ranges. It does not matter whether you want to measure the endless strand or finished plates. The GreCon range is just as accomplished in terms of covering the material web.

GreCon offers stationary and traversing transducers, as well as longitudinal and transverse full-area coverage. All transducers use a patented calibration procedure specially adapted to X-ray systems to ensure reliable values.

UTILISING SAVINGS POTENTIALS

CONSISTENT WEIGHT PER UNIT AREA IS A QUALITY FEATURE

In addition to the requirements for consistent product quality, material savings and the associated cost controls enjoy very high priority. Material fluctuations can be detected quickly and counteracted accordingly due to the continuous control of the weight per unit area distribution. The GreCon-FORMATOR may be a solution here. The systems can support monitoring of standard-compliance by integration into quality management.

Where product quality is concerned, quality costs can be reduced by avoiding complaints. They can be traced optimally by the measuring system's recording function. The GreCon range can also detect foreign objects, thereby preventing downstream damage. The GreCon weight per unit area measuring system will pay off quickly this way.

WHAT WE OFFER

- Visualisation of material distribution
- Material savings due to fast and targeted optimisation options
- Reduction of manual sampling
- Long-term analysis for continuous optimisation of the process incl. verification possibilities
- Reliable detection of foreign bodies

AT A GLANCE

QUICK REACTION TO DEVIATIONS IN MEASURED VALUES

The user interface can be adapted easily to the operators' needs, giving them all information relevant to their particular task quickly and clearly in a numerical and graphic display. Deviations from the regular production process are clearly indicated by the user-friendly visualisation software, permitting quick and effective operator intervention. Detailed records can be created for further analysis.

All Fagus-GreCon measurement systems have interfaces designed to the same principle. The simple menu structure, consistent across all measuring systems, permits intuitive and user-friendly operation and speeds up familiarisation with new systems.

Upstream or downstream process steps can be controlled by connecting the basis weight measuring system via relays or a programmable logic controller (PLC) to an automatic control loop. Strain on the operator is reduced while standardised interfaces permit data transfer to higher-level process control systems.

Digital interfaces

- ✔ OPC
- ✔ Ethernet
- ✔ Digital I/O

Analogue interfaces

- ✔ 4…20 mA
- ✔ 0…10 V

FLEXIBLE REACTION

A BROAD RANGE FOR OPTIMAL SOLUTIONS

GreCon weight per unit area measuring systems comprise a measuring transducer, a crosshead, a control centre, and a measuring data computer. The basic components are chosen to match the measuring task and installation situation.

Many aspects need to be considered when designing a weight per unit area measuring system suitable for your production process.

For example, production processes may require measurements in the direction of production, traversing, stationary, or across the entire area. Detection of foreign bodies requires the full-area measuring method.

ADVANCED TECHNOLOGY TO MEET NEW CHALLENGES

The “Dual-Energy” technology permits detection and display of product components with different absorption behaviour in the material flow.

The different materials can be separated or evaluated separately. Furthermore this technology enables another analysis of the product characteristics.

MEASURING SYSTEMS

SOLUTIONS FOR EVERY MEASURING TASK

Different production processes require different measuring systems and transducers to determine weight per unit area. We offer the solution to match every measuring task, be they point, stationary, traversing, or full-area measurements. Our designs are optimised for the application at hand.

1 Continuous measurement of the weight per unit area of web materials in the longitudinal or transverse direction uses the traversing weight per unit area measuring system GreCon MATCONTROL. The system is characterised by flexible programme-controlled operation and evaluation.

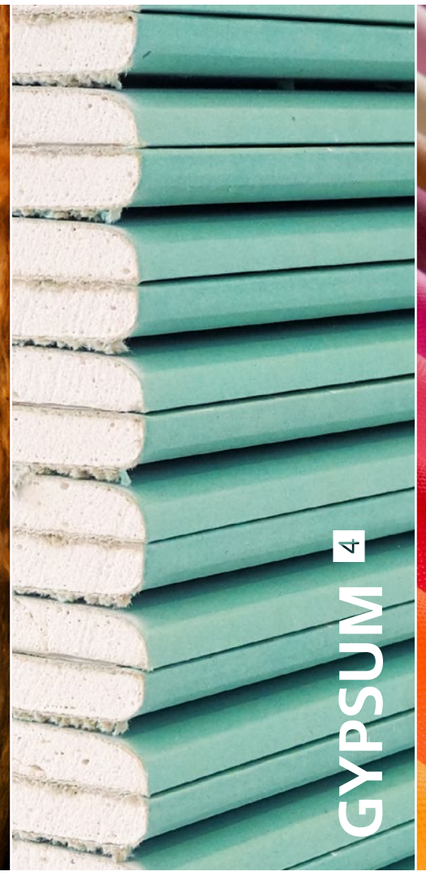
2 The stationary weight per unit area measuring system MATCONTROL T is the best system for controlling the dispersion of chips or granulate in order to achieve homogeneous shaping. Small installation sizes and the point sensor are this system's main advantages.

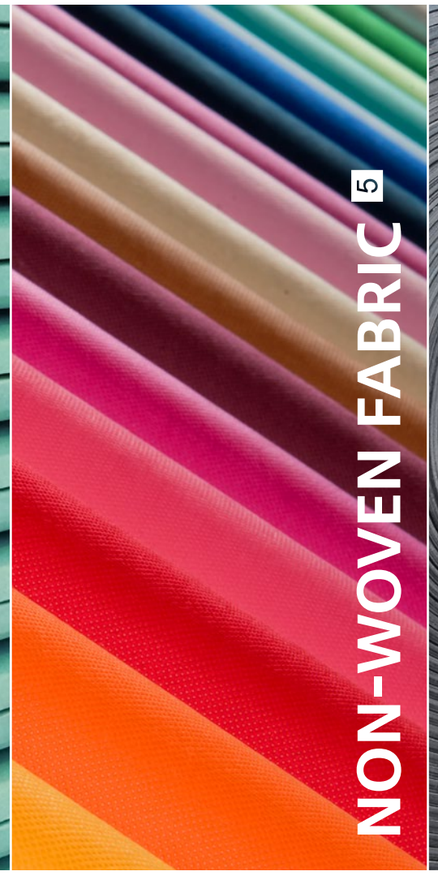
3 The in-line mat scanner MATCONTROL HF continuously records the weight per unit area of web materials. The high-resolution and full-area measurement safely detects foreign bodies or defects in the product.

4 The GreCon BOARDSCALE T in modular design can be optimally adapted to the requirements of measurement. The stationary system is designed for up to 10 transducers to record the weight per unit area across the entire product width without contact.

5 The contactless system BOARDSCALE HF completely records the weight per unit area of panel-shaped materials. The high-resolution and full-area measurement safely detects foreign bodies or defects in the product.

6 The contactless system BOARDSCALE HT provides high-resolution measurement results of the material distribution in panels. The compact sensor design permits installation of the system even in places that are difficult to access.





APPLICATIONS

COMPETENCE FOR ANY INDUSTRY

Different materials require different measurement methods to determine their weight per unit area distribution. We are able to live up to these different requirements with the available transducers in connection with the modular design of the systems.

1 Weight per unit area measuring systems are used as traversing, stationary, or full-area systems in the wood materials industry, depending on the installation situation. They are typically installed in front of the hot press and behind the dia saw. Full-area systems are also able to detect foreign objects and thus protect the steel strip.

2 Continually extruded material is usually measured across the entire area or in a traversing movement immediately downstream of the calender and after vulcanisation. Stationary or full-area systems are used predominantly for applications with isolated panels.

3 Stationary traversing or full-area weight per unit area measuring systems are used for mineral wool, depending on the production. They help optimise energy-intensive production processes to reduce energy consumption and costs. The foreign-object detection in the full-area system will also discover hot spots and wet spots.

4 All of our systems can determine the grammage in both the dry and wet areas in plaster production. Traversing, stationary, or full-area measuring systems are available..

5 Nonwovens pose a particular challenge to the recording of measured values. Traversing weight per unit area measuring systems are deployed in the continuous production process. They have the main task of final quality control.

6 Weight per unit area measuring systems are used for production optimisation and quality control in rubber production right downstream of the calender and following vulcanisation.

BEST AVAILABILITY OF YOUR MEASURING SYSTEM

INDIVIDUAL SERVICE THAT YOU NEED

We stand for maintaining maximum availability and reliability of your GreCon systems! Our global service network will support you in implementation and maintenance of your GreCon systems.

Customisable service modules from our customer service programme will always give you just the service you need - no matter when and where you need it.

We will put together a service package tailored to your needs, from on-site project planning and installation support to commissioning, inspection, or maintenance, always giving you the best solution to avoid downtimes and minimise malfunctions. We support you where you need us. Of course, we also offer an online service.

SATELLITE - SAFE, SIMPLE AND FAST

GreCon experts are at your disposal around the world to answer urgent questions or help with possible malfunctions of your GreCon system with the SATELLITE remote support. We help you make your GreCon system available again safely, easily, and quickly by remote diagnosis. Access to the data history permits targeted and quick analysis of the error cause.

On-site operations can be better prepared and potentially avoided entirely with GreCon-SATELLITE.

PIONEERING SPIRIT, PASSION AND INNOVATION

We are more than just a company, we are a community where pioneering spirit and passion for excellence are our driving forces. Our employees are the key to our success, and our customers are our partners on the path to outstanding solutions.

In 1911, Carl Benscheidt founded Fagus GmbH for the production of shoe lasts and punching tools. His great-grandsons Ernst and Gerd Greten integrated the companies GreCon-Anlagenbau and GreCon-Elektronik. Numerous inventions originate from this merger, including shoe lasts for the right and left foot; measuring technology to record thickness, surface characteristics or the weight by X-ray; the industrial spark extinguishing system.

Today's Fagus-GreCon Greten GmbH & Co. KG is a family business in its fifth generation. Fagus has stood for precision and fit for over 100 years and is an established partner for the international shoe industry. GreCon has been supplying sophisticated solutions for a wide range of applications in various industries in the "fire protection" and "measurement technology" sectors for 50 years. Thanks to numerous innovations and the commitment of our more than 700 employees worldwide, we have been able to establish ourselves as a leading international partner for our customers in each of these areas.

The UNESCO World Heritage Fagus Factory is a special fourth business unit as a cultural enterprise within an industrial setting. In 2011, the building complex at the Alfeld site was listed as the "UNESCO World Heritage Fagus Factory". The Fagus factory built in 1911 as the first building of the architect and founder of the Bauhaus, Walter Gropius, is considered the origin of the modern era of architecture.

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