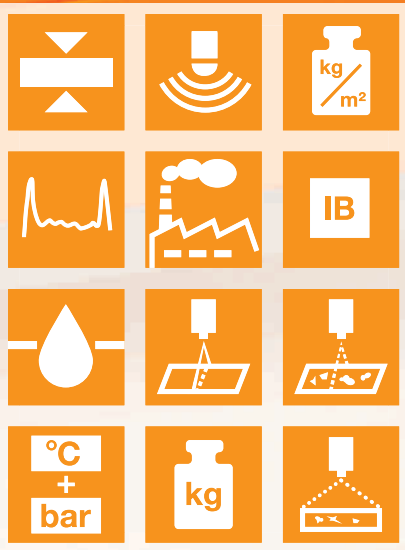


GreCon

WE MEASURE
BEFORE
IT COSTS



Measuring Systems

GreCon

QUALITY
INNOVATION
TRADITION



Innovation is our Tradition.

With this maxim, we refer to our innovative company founder and my great-great-grandfather who founded the FAGUS shoe last factory in 1911. Even then he had the courage to engage the visionary, but unnoticed Walter Gropius, who became an internationally renowned architect, to build his factory, which today is regarded as the origin of the modern age building. UNESCO designated it as a World Cultural Heritage Site in 2011. With an extensive restoration, it is in very good condition, still in operation and owned by the family.

In 1970, our company experienced further innovation. My uncles Gerd and Ernst took over FAGUS, the shoe last production that continues operations today, and founded GreCon. Today, we are suppliers of measuring systems especially for the wood based panel industry and fire protection systems worldwide.

In the course of automation that arrived in industrial particleboard production at the beginning of the seventies, my uncles recognised the need for including inline measuring technology. The first systems were a thickness gauge and a radiometric scale, followed by a good dozen of further inline and laboratory measuring systems. Today, they are not only used in wood based panel productions, but in all processes in which panel-shaped or endless products are produced. Besides measuring systems, systems for preventive fire protection are developed, especially spark detection and extinguishment systems.

We measure before it costs.

Today we serve customers in many industries with 10 product families. The goal to enable our customers to produce products of optimum quality, minimum consumption of resources and thus give them a competitive advantage by using our Quality Assurance Measuring Systems.



Kai Greten
Managing Director of GreCon

Your Benefit



- **Check your** production
- **Ensure** the quality of your production
- **Improve** your production processes
- **Optimise** your consumption of resources and raw materials

Why GreCon



- **Market and technological leader** holding many important patents
- Decades of **expert experience** in the wood based panel and other industries
- Thousands of systems installed **worldwide**
- Global **customer service team** with more than 80 service experts

GreCon

MEASURING SYSTEMS

GreCon
1971 1974



Thickness

DMR 6000
DML 6000



Delamination
Detection

UPU 6000
UPU 2500



Weight
Per Unit Area
Raw Density

DIEFFENSOR
BWQ 5000
BWS 5000



Raw Density
Profile

STENOGRAPH
DAX 5000



Formaldehyde
Emission

GA 5000



Internal Bond

BONDOMAT



Moisture

IR 5000
MM 6000



Surface Quality

SPM 5000
SPL 5000
SPR 5000



Particle
Measurement

SPF 5000



Pressure +
Temperature

CONTILOG
EASYLOG



Weight

HPS 5000
GS 5000
CS 5000



Object Detection

DIEFFENSOR



Thickness

Thickness is an extremely important parameter for the production of panel-shaped materials.

If the thickness is too high, valuable material will be wasted. If it is too low, there will be complaints, or downstream finishing processes cannot be conducted.

Benefit

Production-related thickness fluctuations can be detected by using inline thickness gauges, and the waste of material or loss of quality will be avoided. With ct-technology, the system can be calibrated or serviced at any time (even during production).

DMR 6000

DML 6000





Ultrasound

The intensity of the ultrasound signal that penetrates a wood based panel provides valuable information on the panel parameters.

Substandard ultrasound values point to faulty production quality (blisters). Values that are too good indicate valuable material or capacities are wasted.

Benefit

Material can be saved and capacities optimised by using intelligent evaluation of the ultrasound signal. With ct-technology, the system can be calibrated or serviced at any time (even during production).

UPU 2500

UPU 6000





Weight Per Unit Area/Raw Density

The weight per unit area gives information on the amount of the material used.

If the weight per unit area is too high, valuable material will be wasted. If it is too low, severe quality defects can occur (internal bond and screw holding capacity).

Benefit

The material quantity can be optimised and fluctuations reduced by a precise determination of the weight per unit area. For that, a complete measurement is required. For the measurement of finished panels, the raw density or the weight of the panels can be calculated when the panel dimensions are known.

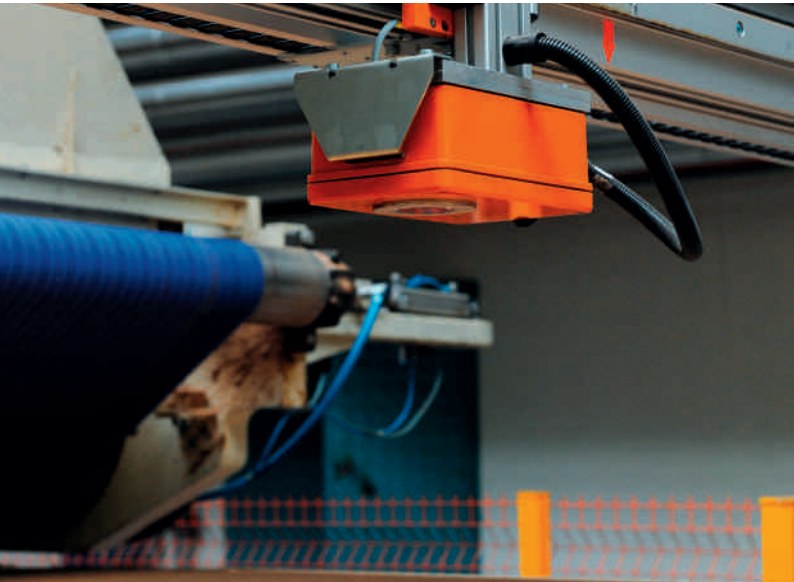
CS 5000

BWS 5000

BWQ 5000

DIEFFENSOR

HPS 5000





Raw Density Profile

The raw density profile is an extremely important parameter in the production of fibreboard.

If the profile does not correspond to the optimum shape, this will have serious effects on the panel qualities (e.g. internal bond).

Benefit

By continuously monitoring the raw density profile, the production parameters can be adjusted to the requirements at any time. Measurement can be accomplished inline (STENOGRAPH) or in the laboratory (DAX).

DAX 5000

STENOGRAPH





Formaldehyde Emission

The formaldehyde emission of wood based panels is subject to legal regulations.

High emissions are unacceptable and can cause serious quality defects. With the new stricter regulations, existing measuring methods are often unable to provide reliable information.

Benefit

The reliable and exact measurement of the formaldehyde emissions ensures maintenance of safe limiting values.

GA 5000





Internal Bond

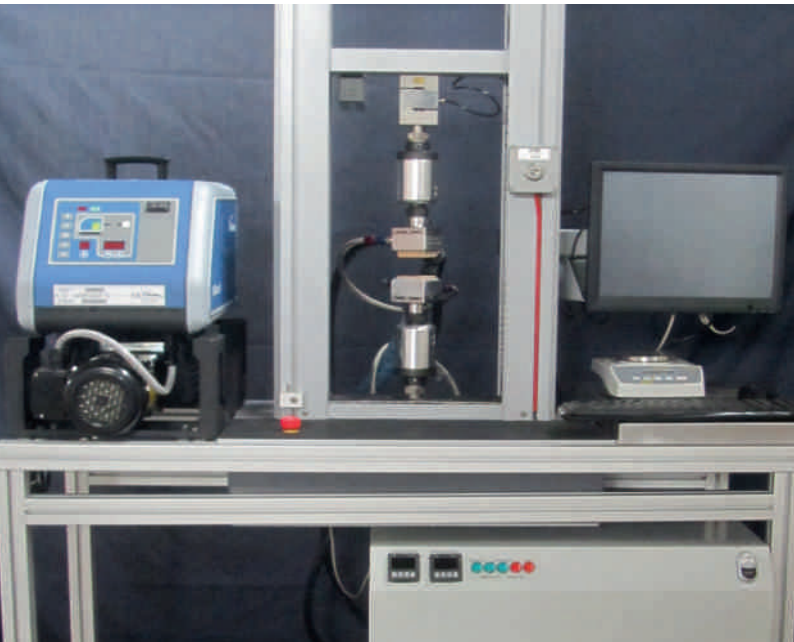
The measurement of the internal bond is an extremely important parameter for the quality control of wood based panels.

For testing, fastening elements (yokes) need to be glued exactly the same each time. If the gluing quality varies, it will have a direct influence on the test results.

Benefit

With automatic gluing of the test samples, the testing conditions are optimised, and the meaning of the testing results is improved. The necessary testing time is minimised.

BONDOMAT





Moisture

Drying material is expensive, but essential.

If the moisture of the raw material is too high, there will be problems in downstream processes. If it is too low, valuable resources will be wasted.

Benefit

A precise, continuous measurement of the moisture saves resources and optimises production processes.

IR 5000

MM 6000





Surface Quality

A high surface quality of panel-shaped materials is pre-condition for a high-quality product. This also applies to materials that are coated.

Surface defects have to be detected as early and accurately as possible to avoid expensive faulty production and customer complaints. Manual inspection is expensive and inaccurate.

Benefit

An early detection of surface defects avoids consequential losses and assures quality.

SPM 5000
SPL 5000
SPR 5000





Particle Measurement

In fibreboard production, most of the energy is used for the production of fibres. The quality of the refiner discs is crucial.

The amount of energy required for the defibration process is high, and the evaluation of the quality of the refiner discs is difficult.

Benefit

The analysis of the proportion of big shives on the surface of the fibre mat allows conclusions of the required amount of energy. Even the point of time to change the refiner discs can be determined much better. Thus, quality problems can be avoided.

SPF 5000





Pressure and Temperature

The correct adjustment of pressure and temperature within continuous presses is very important.

The information at which position of continuous presses, both along and across the production direction, which pressure or temperature exists is of utmost importance for the process, but only assumed.

Benefit

The pressure and temperature values can be measured by inserting a measuring board in the chip mat and pass it through the pressing process. As a result, an optimum adjustment can be found quickly.

CONTILOG

EASYLOG





Weight

The weight is an important parameter for the production of panel-shaped materials.

Without the panel weight, the amount of material used cannot be monitored. The raw density is also one of the most important parameters of a panel production.

Benefit

The amount of raw material used can be monitored by measuring the panel weight. This can be achieved most accurately using x-ray systems, which are also able to measure the weight distribution and also to regulate the weight along and across the production direction by using adjusting elements.

HPS 5000

GS 5000

CS 5000





Object Detection

Foreign objects and particles of high density, such as metal pieces, hot spots or fibre lumps, can cause severe damage to production equipment.

With high-resolution evaluation, the DIEFFENSOR is able to detect such foreign objects. Even areas that are too light, such as air voids or missing material, can be detected.

Benefit

Systems for the detection of foreign objects and material distribution can protect your production and steel belts plus substantially improve quality.

DIEFFENSOR



GreCon

Global
Service Team
with more than
80 Experts

Our Network



Innumerable production plants of different industries worldwide are equipped with thousands of GreCon measuring systems.

To meet this extensive use of our systems and the customers behind them, we are represented by our own companies and reliable partners worldwide.



Personal customer service, combined with competence and experience, is our strength

Customer service is one of our strengths. Beginning with the installation and start-up of your system, its daily use, maintenance work and troubleshooting, your personal GreCon technician accompanies your spark extinguishing system and/or your inline measuring systems through its whole operational sequence. This is done in close co-operation with your people.



GreCon

PEOPLE
PRODUCTS
PLACES

**Fagus-GreCon
Greten GmbH & Co. KG**

P.O. Box 1243
D-31042 Alfeld-Hanover

Phone +49 (0) 5181-79-0
Fax +49 (0) 5181-79-229
E-Mail sales@grecon.com

www.grecon.com

GreCon

Measuring
Technology

GreCon

Fire
Protection

