

MOISTURE MEASUREMENT EQUIPMENT

Moisturemeter II

Continuous measurement in Biomass

With integrated beltweigher

Ideal for realtime calculation of the calorific value



Moisturemeter I

Moisture measurement by filling the measuring cylinder with samples taken out of a shoot

Fully automatic results



Mobile Moisturemeter

Determining moisture content by filling the measuring cylinder manually



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DEVELOPER OF MEASURING-EQUIPMENT



Manufacturer and developer of online and inline measuring equipment developed for measurement of inhomogeneous solids.

- Bulk density meter
- Moisture meter
- Belt weigher

Our markets are various industries/products like:

- Biomass (production and trade)
- Bricks (production)
- Potting Soil (production and trade)
- Drying (production)
- Food / Feed (production)

The importance of MEASURING the Energy Content of Biomass

For many applications it is very important to be able to know the Moisture Content of the processed Biomass. One of those applications is measuring in the feed to the Boiler of a Biomass fed Power Plant. Many of those Power Plants are fed with a variety of feedstock. And even if the feed is always the same type of (woody) biomass, there can be big variations in the size of the chips and their moisture content.

Changing Moisture percentages lead to a changing Calorific Values. And thus lead those changes to a change in the combustion properties of that Biomass. If the Moisture Percentage changes, the ratio between Solid mass - which attributes to the Energy content - and the water - which consumes the available energy for its heating and evaporation - will change.

As a result of the changing Fuel Value, you should adjust the controls of the combustion process in the boiler.

Nowadays, in almost all installations, the Fuel value is determined in an on-site laboratory. For doing that, samples are taken from the storage, and they are pre-processed and measured.

This time consuming procedure has several disadvantages: It takes man-hours to do it, but moreover the result will only be available too late and of course the result of that measurement does not necessarily represent the Calorific value of the product actual fed to the boiler.

The last two disadvantages make that the results of the measurements acquired through such an offline method are not suitable for Process Control.

The only remaining way to react to changes in combustion properties is by evaluating the exhaust gases. But in that way you only can react to changes which took place in the "past", and which probably already caused elevated levels of NO_x and CO in those exhaust gases.

Apart from that, once you measure those changed emission levels, that is the result of a less than optimal combustion. And hence **A LOWER EFFICIENCY**.

Our Moisturemeters can measure your Biomass while being fed to the boiler inline and directly.

The Moisturemeter II - the conveyor-belt version - even has a Belt Weigher included.

This equipment provides you with a lot of real-time data:

- The mass flow
- The flow of solids
- The flow of water
- The Moisture Percentage
- The temperature of the product
- The total mass, per batch and lifetime
- The Bulk Density

In combination with the fuel value of the dry matter, the system can calculate real time the calorific value of the product.

In the past 10 years INADCO has become market leader in Europe with their meter for peat based products. Because we are both developer and producer, we are able to adapt our measuring-equipment to your process needs.



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