

Döschel & Döschel

Moisture Measurement in Laboratory

MoistureLab



MoistureLab – for quick moisture measurement



The water content of a product plays a substantial role in determining its characteristics. It is crucial for establishing data about the shelf-life, processing and quality of a product.

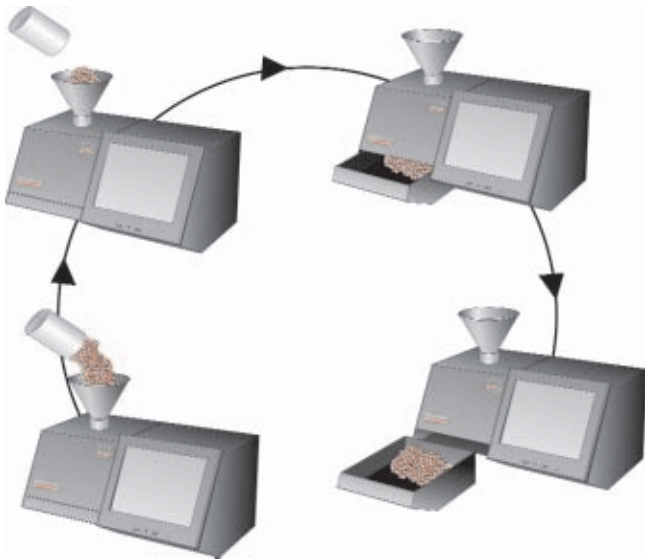
MoistureLab quickly measures the exact moisture of your product without expensive sample preparation. The product can be directly measured without grinding or initial weight. Linked microwaves penetrate the entire product and thus reach even the water molecules inside the product. The change of an electromagnetic field is measured without ever warming it up or changing its properties. The MoistureLab will allow you to optimise process parameters in order to operate production under consistent conditions while reducing costs and disturbances.

Solid construction and an integrated Touchscreen qualify the MoistureLab to operate in the laboratory with fast sample measurement.

It contains a multiplicity of measuring capabilities, as well as different calibration and evaluation functions. The measurement is started via the Touchscreen monitor. The measuring system guides the user with convenient and easy to learn operations. Within seconds, the exact measurement value will be available, which are operationally terminated.

MoistureLab detects the moisture content of the entire sample, both on the surface and in the core of the sample. Determining the water content of a product is made possible due to the assigned technology which operates independently of colour, surface or mineral material portion.

By measuring two physical dimensions; resonant frequency and amplitude, the procedure works density-independently. The energy used for measurement amounts to less than 10 mW. No warming of the product occurs during the process. MoistureLab measures thus without destruction.



Advantages on a view

Microwave based measuring technique

- independent of density and weight
- exact and fast measurement
- independent of color and structure
- measures the core and the surface moisture
- long-term-stability

Improvement of production

- quality safety device
- reduction of rejection
- reduction of complaint costs

Optimized process

- substantial saving of time
- shortened starting phase
- fast and punctual recognition of disturbances

User friendly handling

- no sample preparation
- simple calibration
- extensive evaluation and visualization possibilities [optional]
- long-term documentation by storage of the measured values

Use of the product

- Process parameter moisture is measured at face-value
- your product quality is reached faster
- your laboratory costs is reduced
- your personnel employment is optimized

Components



Technical data

Measuring range:	sub-ranges to select, depending on product and sensor type
Repeat accuracy:	1% of the final value of the selected measuring range [i.e. measuring range: 0 – 10%: ± 0,1% accuracy]
Measuring time:	4 measurements per minute
Power supply:	230 VAC, 50 Hz or 115 VAC, 60 Hz
Measuring volume:	ca. 250 ml
Different products:	ca. 200
Temperature	
- product:	0 – 70 °C
- ambient:	0 – 40 °C
Data storage:	hard disk drive
Interfaces:	1 x USB [for printer]; further interfaces are possible
Size:	400 mm x 400 mm x 400 mm
Weight:	20 kg

Technical data are subject to change.



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