

Moisture Analyzers

The background of the slide features a laboratory setting. In the upper right, there are several test tubes containing liquids of different colors: yellow, green, and blue. In the lower foreground, a petri dish holds a brown, fibrous, and granular sample, likely a biological or chemical specimen being analyzed.

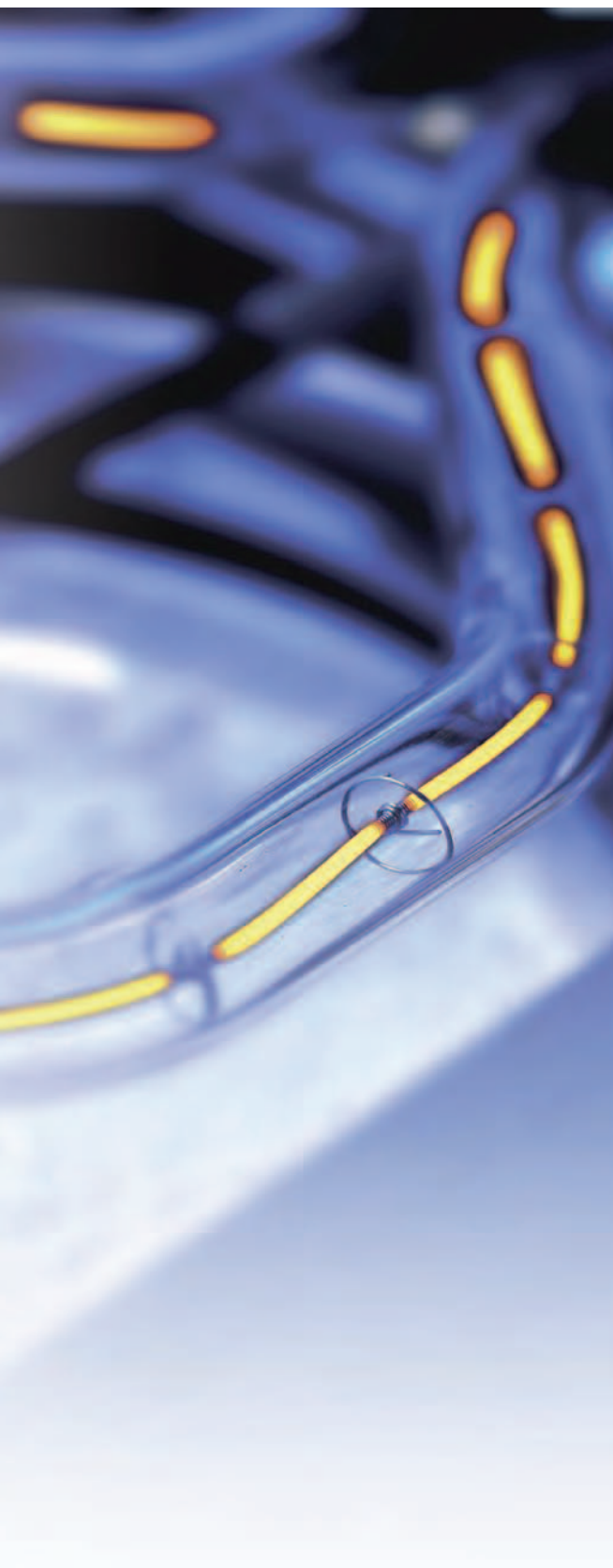
Whenever Moisture
Content Counts



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Accurate Moisture Determination

Whatever your Application



METTLER TOLEDO Moisture Analyzers provide fast, precise and reliable moisture determination in the laboratory and on the factory floor. The industry solutions offer full compliance with regulations for the pharmaceutical industry, highest resolution for plastics, and production-proven instruments for the food industry.

When correct moisture content has a decisive influence on production processes and product quality, a METTLER TOLEDO Moisture Analyzer will give you the results you need with unsurpassed accuracy, speed and reliability. They are robust, easy to use and are built for long, reliable operation.

Reference Substance for Moisture Analyzers

SmartCal™ verifies moisture analyzer performance with a simple 10 minute test. Proper verification and documentation assists you to fulfill the demands of industry regulations and company audits.



SmartCal / cSmartCal

Highest Resolution, Safety and Speed

The HX204 combines highest resolution and outstanding speed with powerful QC tools and strong graphics to meet the strict demands of research, quality control and production.



Excellence Plus HX204

Improved Productivity and Yield

The HS153 combines shortest measurement times with strong graphics and high accuracy to optimize your productivity and yield.



Excellence HS153

Reliable and Precise for Quality Control

The HB43-S ensures rapid and precise test results for reliable quality control even in harsh production environments.



Classic Plus HB43-S

Inspection Made Simple

The robust MJ33 offers basic functionality and simple operation for routine inspection.



Classic Light MJ33

Excellence Moisture Analyzers

Fast. Accurate. Robust.

When moisture matters, Excellence Moisture Analyzers deliver outstanding value. The new generation of instruments provide highly reliable results in the fastest possible time. Boost productivity with a powerful combination of real-time graphics and convenient data management via USB stick. Ruggedness and ease-of-use ensure disruption free operations, both in the lab and on the factory floor.

Robust. Clean. 360° Access

The weighing cell is located at the back of the instrument and is therefore protected against spilled samples. The fully sealed measurement chamber is robust and easy to clean. 360° access allows convenient sample handling.



Accuracy guaranteed



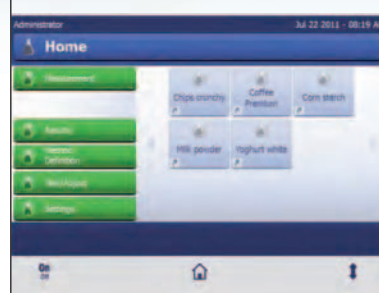
Automatic internal calibration and level control ensure accurate weighing results. The heating module is calibrated at operating temperature for precise drying.

Powerful real-time graphics



Real-time drying curves visualize the measurement on the display. Control charts indicate the moisture content trend. Control limits simplify pass/fail decisions.

One Click Analysis



Personalized shortcuts allow methods to be started with one single click. Individual user rights make sure quality guidelines are followed.

HX204

Best performance
for regulated industries



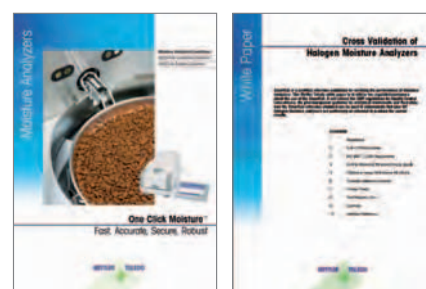
The HX204 Halogen Moisture Analyzer is designed to meet the strict demands of research, quality control and production. It combines outstanding measurement performance with rapid testing. The advanced safety functions make the HX204 the ideal instrument for use in highly regulated industries.

HS153 (stand optional)

Speed and real-time graphics boost
productivity



When moisture content determines productivity, the HS153 is the instrument of choice. Powerful real-time control charts and drying curves combined with ruggedness and ease-of-use answer the needs of companies thriving to optimize operations. Minimal bench space is required when using the optional stand. The width of the instrument is the same as A4 paper.



Please order the detailed product brochure and the White Papers on cross validation of the Drying Oven Method versus Moisture Analyzers

HX and HS Moisture Analyzers Excellence Line

► www.mt.com/moisture

Model	Capacity	Readability (%MC)	Repeatability (10 g sample)	Heating technology	Temperature range	Method storage	Part No.
HX204	200 g	0.01/0.001%	0.01%	Halogen	40 – 230 °C	999	30019875
HS153	150 g	0.01%	0.01%	Halogen	40 – 230 °C	99	30019876

Routine Inspection Made Easy

Proven Measurement Technology



HB43-S

Production-proven

The reliable measurement technology delivers accurate results in all environments. The robust design, flat surfaces and easily accessible components make cleaning simple and straightforward.



Ready-to-use method library

The integrated method library of the HB43-S offers ready-to-use methods for more than 100 substances. Method development becomes simple and fast. All methods are fully tested and comply with official regulations.

1560.03 Wheat Flour
1582.02 Tortilla Chips
1584.03 Chocolate po...
[Navigation icons: up, down, Edit, left arrow]

All information displayed

The large display is easy to read; icons guide the operator through the measurement procedure. Alphanumeric method names and the target-weight indication ensure error-free operation.

AMySubstance
[Icons: sun, clock, thermometer, asterisk]
1:27 105 °C
-7.34 %MC

HB and MJ Moisture Analyzers

Model	Capacity	Readability (%MC)	Repeatability (10 g sample)	Heating technology	Temperature range	Method storage	Part No.
HB43-S	54 g	0.01%	0.015%	Halogen	50 – 200 °C	2	11121800
MJ33	35 g	0.01%	0.05%	Infrared	50 – 160 °C	1	11121810
LabX direct moisture software for easy data transfer to PC							11120339

HB43-S

The Workhorse
on the Factory Floor



Wherever quality and shelf life depend on moisture content, it is vital to get fast and accurate moisture analyses. The HB43-S offers everything you need: direct method access, a fast drying program for shorter measurement times, and an integrated library with over 100 validated methods.

MJ33

Simple and Error-free
Operation



Easy handling and simple operations combined with robust components make the MJ33 the ideal instrument for routine measurements in production environments. No need for programming thanks to automatic end-point determination.



Please order the brochure
Halogen Moisture Analyzer

► www.mt.com/moisture

Accessories for Moisture Analyzers HX204, HS153, HB43-S, MJ33

Sample Handling	Description	Part No.	Quantity
	Aluminum sample pan	00013865	80
	Glasfibre filters	00214464	100
	Professional aluminum sample pan (extra strong)	11113863	80
	Steel sample pan (reusable), height 6 mm	00214462	3
	HX/HS sample pan handler	11148130	1
	HB/MJ sample pan handler	00214464	3
Quality Management	SmartCal Reference Substance: see page 111		
	HX/HS certified temperature adjustment set	30020851	1
	HB/MJ certified temperature adjustment set	00214528	1
	HX/HS adjustment weight, 100g certified	11119531	1
	HB adjustment weight, 50g certified	11119530	1
	MJ adjustment weight, 20g certified	11119529	1
	HX/HS Thermo/hygrometer	30020850	1
Printers	RS-P42 printer with RS232 interface	00229265	1
	RS-P25 compact printer with RS232 interface	11124300	1
	BT-P42 printer with wireless BlueTooth interface	11132540	1
	Printer paper	00072456	5
	Printer paper, self adhesive	11600388	3
	Printer ribbon, black	00065975	2
Accessories	HX/HS stand for terminal	30018474	1
	HX/HS dust filter	30020838	50
	HX/HS protective cover for terminal	30003957	1
	HX/HS anti-theft device	11600361	1
	HX/HS transportation case	30020836	1
	HB/MJ protective keypad cover	11113363	2
	HB/MJ dust filter	11113883	50
	HB/MJ dust filter housing	11113882	1
	HB/MJ transportation case	11113555	1



Sample pans

Thanks to its optimal surface finish the aluminium sample pans ensure optimal testing conditions.



Glass fibre filters

The adsorbent glass fibre filters simplify testing of liquid and pasty substances and prevent the build-up of a surface film.



Certified temperature adjustment kit

Ensure full traceability and perform temperature calibration at point of use (HR83).

SmartCal. Trust your Results.

Reference Substance for Moisture Analyzer Testing

Whether producing food, chemical or pharmaceutical products, no one can risk inaccurate results. In today's industries with strict regulations and ongoing audits, efficient verification and documentation of the performance of your Moisture Analyzers is key.

SmartCal ensures accurate results and provides seamless QC documentation with a simple, quick 10 minute test. Your Moisture Analyzer is under control at all times.

Verified instruments

Test in only 10 minutes



Innovative test substance

SmartCal is a granular test substance. Its high sensitivity reliably detects adverse influences from ambient conditions and inaccurate heating or weighing devices.

SmartCal checks moisture analyzer performance in three steps



Simple and fast test

The test is as easy to perform as a regular measurement. Simply pour SmartCal into the sample pan and start. The results are available in 10 minutes.

PASS



FAIL



Verified instrument

The moisture analyzer is ready for use, if the result lies within the SmartCal control limits.



No issues with auditors

The proper verification and seamless documentation guarantee correct performance.

Certified cSmartCal

for highly regulated industries



The certified cSmartCal is recommended for use in all highly regulated industries. A Certificate of Analysis is provided for every production batch. This certificate is issued by the independent German Federal Institute for Materials Research and Testing in Berlin (BAM, www.bam.de).





SmartCal checks the performance of your Moisture Analyzer in the QC lab or directly on the factory floor in just 10 minutes. For results you can trust.

Routine Testing

Test Frequency Recommendation
Halogen Moisture Analyzer

Company: Mettler Toledo AG
Contact: Peter Walter, Sales Director
Email: peter.walter@mettler.com
Telephone: +41 800 20 20 20
Mettler Toledo, 8005 Greifensee, Switzerland

Department / Division: Analytical Instruments / 1st Division
Instrument Type: Moisture Analyzer
Instrument Model: 30005791

Regular verification of the Halogen Moisture Analyzer is essential to ensure valid results and maintain quality. Based on your profile we recommend the following routine testing schedule.

Usage Profile

Parameter	Value
Quantity	1000 g
Frequency	1000 g
Material	1000 g
Batch	1000 g

Recommended Frequency of Testing

Material Type	Frequency
Granules, Solids	1000 g
Granules, Liquids	1000 g
Granules, Gases	1000 g

For the evaluation of this table used to determine the Test Frequency Recommendation, please refer to the attached background information on routine testing of Moisture Analyzers.

METTLER TOLEDO

Are you testing enough? Or maybe too much?

The optimal frequency for verifying the performance of your Moisture Analyzer is dependent on your specific process needs and working environment. Get your free personalized, risk based testing recommendation at www.mt.com/smartcal-frequency-recommendation

► www.mt.com/smartcal



For more information please order the SmartCal product brochure.

SmartCal Reference Substance

Description	Part No.
cSmartCal (certified, set of 24)	30005791
cSmartCal (certified, set of 12)	30005793
SmartCal (set of 24)	30005790
SmartCal (set of 12)	30005792
StarterPac cSmartCal (all accessories, protocols and 12 tests)	30005918