

Electronic Moisture Balance MOC-120H



Large sample pan (130mm dia.) and capacity allows optimum sample surface area.

Reliable UniBloc weighing mechanism and unique auto-taring function enable very accurate measurements.

SHIMADZU CORPORATION

MOC-120H

Accurate moisture measurement with new weight sensor



Features

- 1 Large sample pan allows even a large amount of sample to be placed evenly in a thin layer. The result is accurate and fast measurements.
- 2 Mid-wave infrared quartz heater provides effective drying without interference for a wide range of samples. Besides the excellent drying performance, it offers a long operational life of 20,000 to 30,000 hours.
- 3 The internal precision weighing balance is engineered with a Shimadzu UniBloc cell. The mechanism provides excellent stability and a long operational life against repeated temperature changes.
- 4 Digital control allows a selection of measurement modes. 10 sets of measurement settings can be stored for quick recall. Select one of the 9 combinations of drying and halting modes to optimize the measurement of your sample.
- 5 Weight loss rate in the previous thirty seconds is monitored and visually presented in the bar graph display. This feature is especially useful to show that the measurement is close to completion.
- 6 Shimadzu's unique WindowsDirect function is standard. Measurement data can be sent to an application such as Excel® without any software installation to the computer. All you need to add is an RS232C cable.
- 7 A larger sample pan contributes to accurate measurements, but the larger heat capacity normally produces larger zero drift due to temperature fluctuation. The MOC-120H is equipped with a unique auto-taring mechanism, which adjusts the zero drift automatically and ensures high accuracy, even with a larger sample pan.
- 8 Bias function allows adjustment to the data obtained by other measuring methods or other testers.
- 9 Large backlit LCD is easily read even under poor lighting conditions.

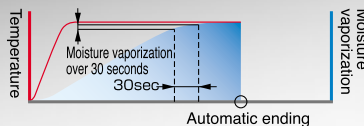


Choice of measuring modes meets your application.

Ending modes

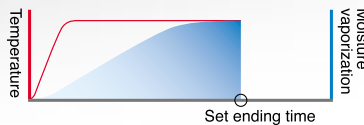
• Automatic ending mode

Automatically ends measurement when moisture loss over the previous 30 seconds becomes smaller than specified percentage.



• Timed ending mode

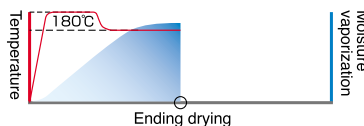
Automatically ends measurement when the specified amount of time has elapsed.



Alternate Drying modes

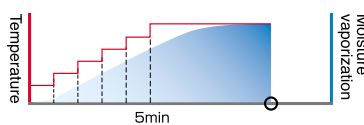
• Rapid drying mode

First dries with the highest temperature for the specified period, then shifts to the specified temperature shortening measurement time.



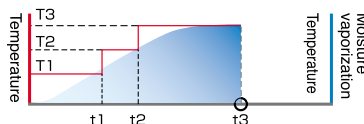
• Slow drying mode

Gently heats samples that might solidify at the surface or samples that reduce under high temperature.



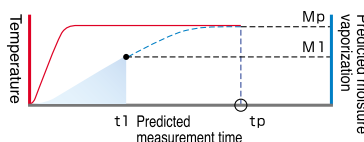
• Step drying mode

Allows step by step change of drying conditions. This feature is useful when measuring samples that contain a large amount of water.



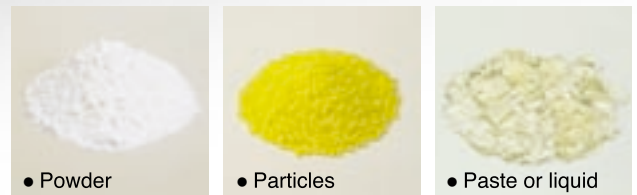
Predictive measuring mode

With preparatory measurements of the sample, the final result is predicted from the drying process, saving time in repeated measurements.



Different forms of samples can be measured.

Most samples which vaporize only moisture and cause no hazardous reaction under heating can be measured



Various materials can be measured.



Cereal, starch, flour, noodles, brewed products, sea foods, meat products, spices, sweets, dairy products, vegetable oil, soil, ore, cokes, glass, cement, chemicals fertilizer, paper, pulp, cotton, fibers.

Meets demands of various industries and fields

Pharmaceuticals, agriculture, food processing, textiles, chemicals, fertilizer, paper, construction.

Bar graph display monitors moisture vaporization

• Bar graph display

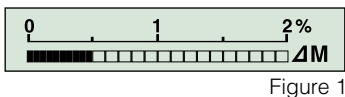


Figure 1

• Vaporized moisture and vaporization rate

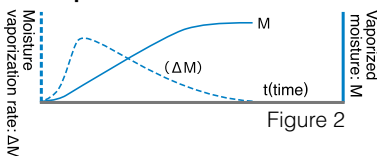


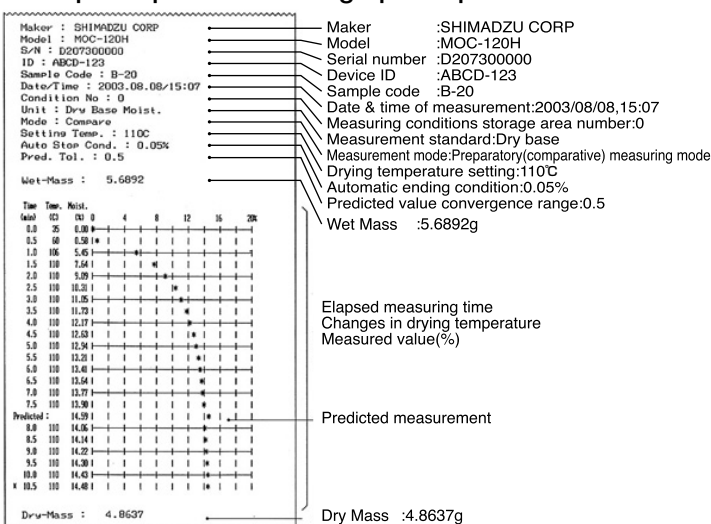
Figure 2

• What is moisture vaporization rate display

In drying by infrared heater, a large amount of moisture vaporizes in early stage and vaporization slows towards the end of measurement. The M curve in Figure 2 shows a typical vaporization of moisture. ΔM indicates the rate of vaporization. Monitoring ΔM makes it possible to gauge how close the measurement is to completion. The bar graph display makes it visible. (Figure 1)

Data out put with the optional printer

• Example of print out in the graph output mode





Specifications

Model(P/N)	MOC-120H(321-63300)
Measuring method	Heat drying and weight loss
Sample pan size	130 mm dia
Minimum display in weighing	0.001g
Measurement range of moisture content	0.01% to 100.00 %
Moisture content minimum display	0.01%
Sample capacity	120g
Measurement modes	Automatic or Timed ending modes, Standard, Rapid, Slow and Step drying modes, Predictive Measuring mode
Drying heater	Mid-wave infrared quartz heater
Setting temperature range	30 to 180°C (by 1°C increments)
Dimensions	220W X 415D X 190H (mm)
Weight	4.5kg
Operational temperature and humidity range	5 to 40°C, 85% RH or lower
Power requirements	AC100 to 127 / 220 to 240V, 640W maximum
Standard accessories	Sample pan 2pcs, Sample pan handler 2pcs, Aluminum sheet 20pcs, Spoon, Spatula
Stored procedures	10

Consumables, Supplies

Aluminum sheet 500pcs	321-63320
Printer paper for optional electronic printer 10 rolls	321-63306

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* The contents of this catalog are subject to change without notice.



URL <http://www.shimadzu.com/balance>

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Peripherals, Accessories

Electronic printer 321-63305-02 (220V ± 10%)

Intermediate status of measurement, final results of measurement can be printed out graphically.

(includes AC adapter, connection cable, printer paper 1roll)
321-63305-03 (120V ± 10%)



RS-232C cable 321-63308

Appropriate samples

Samples from which moisture or other components vaporize and cause no hazardous reaction under heating

Safety Precautions

Read Instruction manual and understand before use of this instrument.
Do not measure any samples which cause hazardous reaction under heating.
This instrument becomes very hot during measurements. Use proper care to avoid burns or fires.

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