Moisture Analysis

Best Practice

01 SELECTING A PROPER LOCATION

Physical Location

As with any balance, a moisture analyzer should be placed on a solid, stable table or workbench that is free of vibration. Please note, the unit contains a fan to circulate ambient air through a chamber within the device which helps to ensure the constant temperature of the weighing cell during heating. To allow the fan to function properly, the moisture analyzer should be placed in an open area and not directly against a wall.

For extremely sensitive samples or for cases where sensitivity of the reading is critical, consider placing the analyzer in an environmental chamber where temperature and humidity are tightly controlled.

Temperature

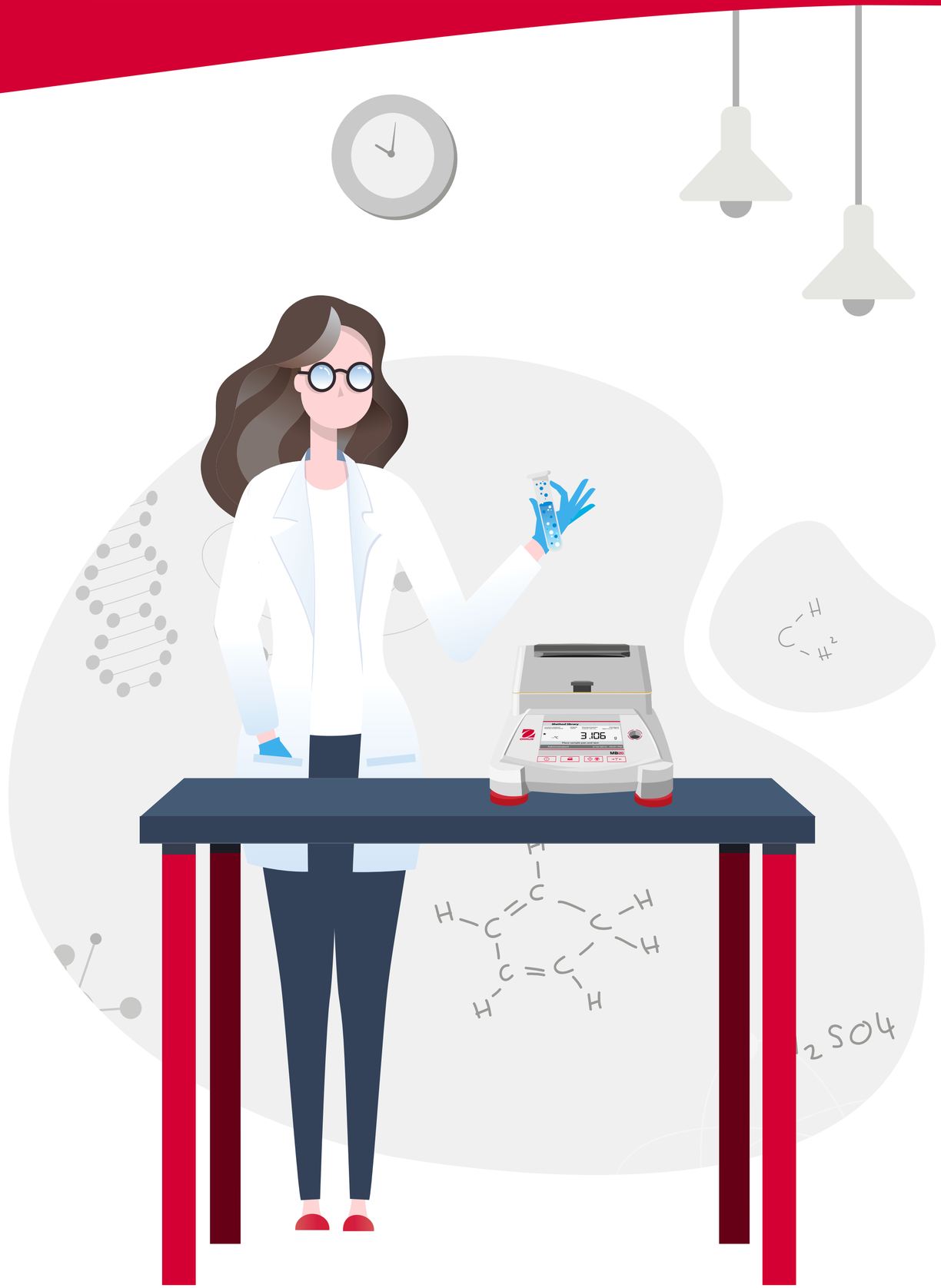
Changing temperatures and cold-start conditions (the starting state of the moisture analyzer after it has not been used for a period of time) may adversely affect your results. Ideally, an operating temperature of 20°C should be maintained. Once the device is installed, the temperature should remain constant and the device should not be placed in close proximity to other objects (including windows) that emit heat. The operating temperature should never exceed the limits specified in the operating manual or data sheet.

Humidity

It is also important to avoid rapid changes in humidity as this can affect the weighing cell and cause it to drift, potentially leading to an inaccurate measurement result. The relative humidity should be approximately 50% and the ambient relative humidity should never exceed the limits specified in the operating manual or data sheet. Once the device is installed, the ambient relative humidity should remain constant.

Air Currents

The moisture analyzer should be placed in a location free of air currents. This includes drafts caused by open windows or HVAC (heating, ventilation, and air conditioning) systems.



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02 INITIAL SETUP

Turning On

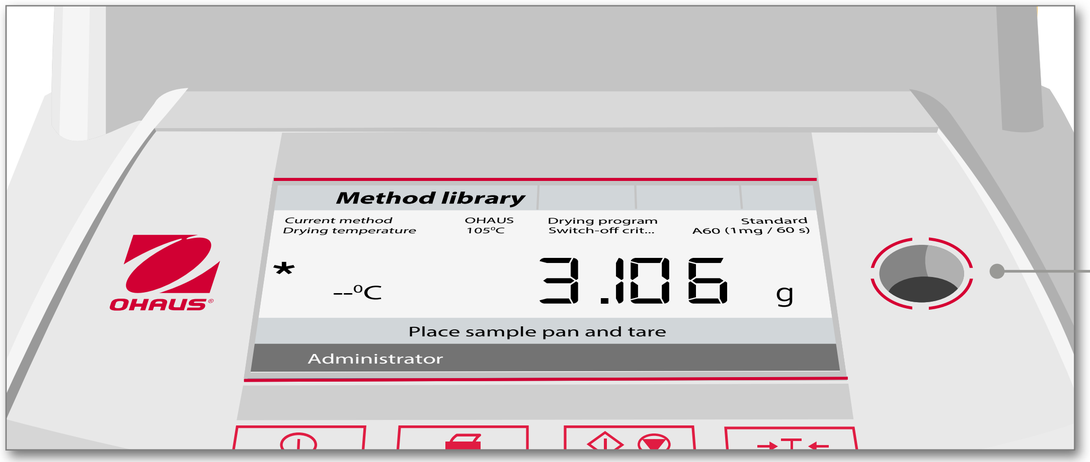
Once the moisture analyzer has been set up for use, it is best practice to keep the device plugged in. While the display may be turned off to conserve power, the weighing cell should be powered constantly to ensure that it is always ready for measurement. When the analyzer has been plugged in for the first time, allow it to warm up for 3 hours before initial use.

Leveling

It is important to level the moisture analyzer to ensure best weighing accuracy.
To level the analyzer, rotate the leveling feet until the level bubble is in the correct position. Consult your device's operating manual for additional information about how to level your moisture analyzer properly.

Adjustment

The OHAUS MB Series of moisture analyzers arrive adjusted and ready to use in optimum environments. It is recommended to re-adjust the analyzer by performing a weight and temperature adjustment before it is first used and if any changes are made to the ambient conditions (including moving it to a new location) in order to compensate for changes that may affect how much energy is delivered to the sample surface.



03 WHEN IN USE

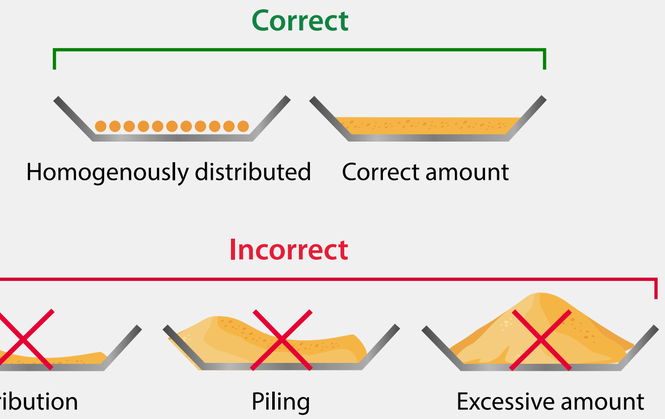
Adjustment / Calibration

As with a laboratory balance, it is recommended to perform periodical weight and temperature adjustments of the moisture analyzer. Both procedures are explained step by step in the operating manual.

Sample Preparation and Handling

Sample collection and sample preparation have a great influence on moisture readings and reproducibility. Sample collection may mean obtaining samples from the processing line at given time intervals or on a batch-to-batch basis for any given day.

Learn more:
OHAUS Moisture Analysis - Sample Preparation and Handling Tips



Limit the access

Another aspect to consider is restricting access to the moisture analyzer to ensure that unauthorized users don't use the device and change any settings. The OHAUS MB120 has a user management function with the possibility to set a password and create different user profiles with different access rights.

Learn more on www.ohaus.com