

GRANUMIDITY™

RELATIVE HUMIDITY AIR CONTROLLER
MEASUREMENT AND CONDITIONING OF RELATIVE HUMIDITY

DESCRIPTION

Humidity is defined as a condition of moisture in the air that is usually invisible, but not always. Relative humidity is based on the ratio of water vapor actually present in the air to the amount of water the air could hold and it is usually defined as a percentage. For example 60% of relative humidity means the air can absorb 40% more water vapor in order to be fully saturated.

Relative humidity control is a big deal. The reason is the higher the temperatures are, the higher the capacity of the air to hold water. The two are directly related. As a rough rule of thumb we could say that for every 10-11 C° rise in temperature, the air's ability to hold water doubles. The amount of moisture needed to supplement the ambient moisture present in the chamber depends on the test temperature.

Controlling the **relative air humidity** during a measurement on a powder is important. Particularly, during electrostatic measurement with the **GranuCharge** instrument.

Therefore, **Granutools** developed an **air generator** with fixed relative humidity called the **GranuMidity**.

PRINCIPLE

GranuMidity controls the relative humidity of air before pulsing it outside. Dry compressed air is supplied; one part of this air goes through a bottle containing water to get moisture, while the other part goes directly to the mixing chamber. The ratio of wet air and dry air mixed in the device allow us to reach the required relative humidity.

KEY BENEFITS

- › High precision, high repeatability.
- › Wide range of humidity.
- › Handling is simple and fast.
- › Compact size.
- › This air conditioner can easily be coupled with the **GranuCharge** instrument, in order to perform the measurements always at the same hygrometric conditions or also, at different humidity levels.

DIFFERENTIATORS

- › Semi automatic.
- › Easy cleaning by design.
- › Relative humidity range: 0% RH to 95% RH*

**Note: Values at the output of the instrument. High humidity levels require well-controlled environment. Minimum humidity value depends on the air supply.*

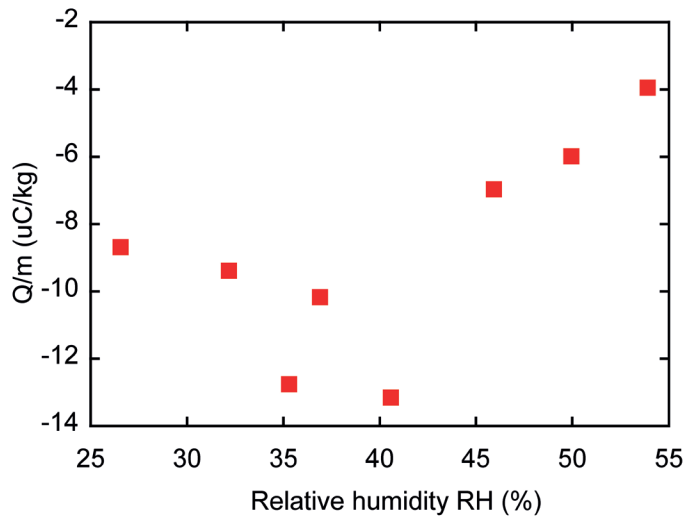
- › Smart design guarantees high robustness and long life.
- › Humidity control can be effectively established in conjunction with the air circulation system.

APPLICATIONS

- › Conditioning of air to maintain constant as required.
- › The air conditioner **can easily be coupled** with the **GranuCharge** instrument or any other instrument that requires controlled hygrometric conditions

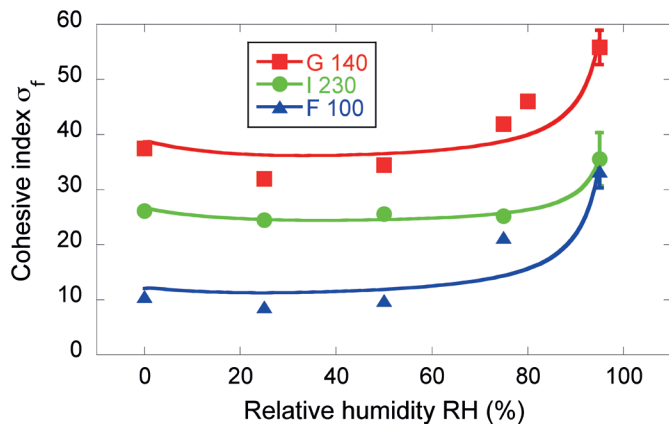
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GRANUMIDITY SPECIFICATIONS

DIMENSIONS LxWxH (mm)	500 x 300 x 350
WEIGHT (kg)	5
TANK VOLUME	500 ml
LIQUID	Osmosed Water
HUMIDITY RANGE	0 to 95 % (at 20°C)
TIME NEEDED TO INCREASE HUMIDITY (BY 10% STEP)	5 min (dependant of environmental conditions)
INLET PRESSURE	4 bars
INPUT	AC 100 - 240 V - 1.5 A (1,5 A) 50 - 60 Hz



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