CroPharm

The ERWEKA

GT-Series

For testing the flow behavior
of powders and granules

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Three devices, all options
Our granulate flow tester series

The devices of the ERWEKA granulate flow tester family were developed to determine the flow behavior of powders and granules using various measurement methods.

As an entry-level device, the GTL is ideally suited for the USP/EP-compliant measurement of the flowability of powder and granules according to the measurement methods of weight and volume. Thanks to the simple numerical membrane keypad and the LC display, the device is easy to operate and all results can also be printed out.

The GT has a scale - this allows the stable weight to be measured during the flow process. In addition to the two measurement methods of the GTL (flowability by weight and volume), the GT can also measure the flowability over a specified time as well as the flow angle with graphic display on a printout.

The GTB complements the extensive capabilities of the GT with an advanced, automatic laser measurement of the angle of repose - this gives the user a comprehensive picture of the flow properties of the evaluated powder or granulate.

Both devices, the GT and the GTB have an LC display and a membrane keypad for easy operation, which also enables the results to be printed out. Various accessories also make it possible to carry out customer-specific measurements that are not EP-compliant. For example, outlet nozzles with different diameters or smaller receiving funnels can be selected. The GT and GTB can optionally be equipped with a stirring unit for samples with poor flowability. The speed can be regulated in four stages.

Measurement methods GTL

- Flowability measurement by weight. (EP method)
- Flowability measurement by volume.

Measurement methods GT

- Flowability measurement by weight. (EP method)
- Flowability measurement by volume.
- Flowability measurement over a specified time.
- Determination of the flow angle with graphic representation on the printout.

Measurement methods GTB

- Flowability measurement by weight. (EP method)
- Flowability measurement by volume.
- Flowability measurement over a specified time.
- Determination of the flow angle with graphic representation on the printout.
- Measurement of the angle of repose using a laser measuring device.

EP-compliant measurement methods possible

Powder and granulate flow measurement with up to 5 methods

Interface for immediate printing of results

Angle of repose Laser Measurement

Additional options for customer-specific measurement methods


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Standard configuration and options
Device comparison

	GTL	GT	GTB
			
Funnel 480 ml	✓	✓	✓
Outlet nozzle 10 / 15 / 25 mm	✓	✓	✓
Light barrier for time measurement	✓	✓	✓
Crystallizing dish	✓	✓	✓
Integrated scale (Mettler Toledo)	—	✓	✓
Laser measuring device	—	—	✓
Structure for angle of repose measurement and 45 ° adjustment cone	—	—	✓
Options			
IQ / OQ documents	✓	✓	✓
Funnel 100 ml / 200 ml with overflow bowl	✓	✓	✓
Outlet nozzle 6 / 8 / 11.3 mm	✓	✓	✓
Stirring unit	—	✓	✓
Adjustment / calibration kit (Stopwatch, weights)	✓	✓	✓
Calibration cone 30° / 40°	—	—	✓

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Base model for two measurement methods
GTL

The entry-level GTL enables the measurement of the flow time of a predefined amount of granulate or powder (according to EP) as well as the measurement of the flow time of a given sample volume. Thanks to the simple numerical membrane keypad, operation is extremely easy. Test results can be shown on the LC display and printed out with a connected printer.

In the standard version, the GTL is supplied with a stainless steel funnel (480 ml) and three stainless steel outlet nozzles (10/15/25 mm), which can be replaced by a quick coupling. Additional stainless steel funnels (100/200 ml) and outlet nozzles (6 / 8 / 11.3 mm) are optionally available.

Technical specifications

Width / Depth / Height	430 / 400 / 730 mm
Weight	25 kg
Power	100 - 240 V / 50 - 60 Hz
Operation	Membrane keypad with LC display
Outlet nozzle	10 / 15 / 25 mm (Optional: 6 / 8 / 11,3 mm)
Funnel	480 ml (Optional: 100 / 200 ml)
Interface	RS232C and USB

EP compliant measurement:
Flowability measurement by weight

- Weigh three different 100 g samples manually
- Use the 480 ml funnel
- Use the 10, 15 or 25 mm nozzle
- The average value is calculated from the flow rate at 100 g

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Granulate flow tester for four measurement methods
GT

The ERWEKA GT granulate flow tester has a special, integrated scale that can measure the weight of samples while testing their flow behavior. Users can measure the flow time of a sample weight, a given sample volume or the flow time of a weight in a given time.

With the large full-graphic LC display and the membrane keybpad, the device can be operated comfortably. For an easy comparison, a graph is calculated and can be printed out (quantity / time).

Technical specifications

Width / Depth / Height	430 / 400 / 700 mm
Weight	25 kg
Power	100 - 240 V / 50 - 60 Hz
Operation	Alphanumeric membrane keypad with LC display
Outlet nozzle	10 / 15 / 25 mm (Optional: 6 / 8 / 11,3 mm)
Receiving funnel	480 ml (Optional: 100 / 200 ml)
Interface	RS232C and USB
Precision scale	Mettler Toledo BBA 242
Maximum load	7000 g
Readability	0,1 g

Features

- Precisely integrated scale can also be used independently of the flowability measurement
- The results are shown on the LC full graphic display (320 digit 16-line)
- Quickly replaceable stainless steel nozzles (6 different different sizes) with quick release
- Easy operation via the Aphanumeric Membrane keypad
- RS232C interface for data output
- USB print interface for documentation of Results, graphs and statistics

EP compliant measurement:
Flowability measurement by weight

- Using three different samples, measuring the weight is carried out by the device
- Use the 480 ml funnel
- Use the 10, 15 or 25 mm nozzle
- The average value is calculated from the flow rate at 100 g

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Professional device for up to five measurement methods
GTB

The GTB is the fully equipped all-rounder in the GT family. In addition to the standard measurement of the flow properties, it has a method for fully automatic determination of the angle of repose.

For this purpose, a powder or granule cone is heaped up. The geometry of the cone is optically measured using a laser (class 2) and the angle of repose the sample is displayed as a result. The stirring unit with four speed levels is standard on the GTB.

The device is conveniently controlled via a large LC full graphic display and a membrane keypad. Two calibration cones (30° and 40°) can be optionally purchased for the calibration of the angle of repose measurement.

Technical specifications

Width / Depth / Height	430 / 400 / 700 mm
Weight	25 kg
Power	100 - 240 V / 50 - 60 Hz
Operation	Alphanumeric membrane keypad with LC display
Outlet nozzle	10 / 15 / 25 mm (Optional: 6 / 8 / 11,3 mm)
Receiving funnel	480 ml (Optional: 100 / 200 ml)
Interface	RS232C and USB
Precision scale	Mettler Toledo BBA 242
Maximum load	7000 g
Readability	0,1 g
Optical measurement	Laser Class 2 (EN 60825-1:1994)
Laser measurement	± 1°

Optional overflow protection for methods with 100 mm and 200 mm cylinders.

EP compliant measurement:
Flowability measurement by weight

- Using three different samples, measuring the weight is carried out by the device
- Use the 480 ml funnel
- Use the 10, 15 or 25 mm nozzle
- The average value is calculated from the flow rate at 100 g

Slope angle measurement:

- Use of the structure for the embankment angle measurement
- Stirrer must be used for the measurement
- Use the 480 ml funnel
- Use the 10 mm nozzle
- Use of the 100 mm collecting plate
- Select the amount of material so that the plate is completely covered with granulate

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LC display and membrane keypad

Stirring unit

Funnel

Closure unit of the outlet nozzle

Laser Measuring device

Plates and Overflow bowl

Precision scale

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