

## **PTG-M100**

### **Manual Powder Tester**

The PTG-M100 manual powder tester is used to measure the flow behavior of granules and powders in compliance with the EP <2.9.36>, EP <2.9.16>, USP <1174> Pharmacopoeia and ISO 4324 standards. This instrument is used to determine the powder flow time and the powder's angle of repose. By using a laboratory balance also weight, density and the volume of the powder cone can be calculated. Furthermore, the EP "flowability" result can be calculated by measuring the flow time of 100g of sample through a specified pouring nozzle according to the flow through an orifice with funnel method.



The instrument consists of a solid base plate with a stand and a conical funnel, which can be equipped with different pouring nozzles. The optional PTG-M manual stirrer may be used for powders which do not flow well. The height of the stirrer and funnel can be adjusted freely up and down and locked into place without a risk of twisting and without using any tools. The instrument includes a powder collecting tray, which can be easily removed for cleaning. The base plate with integrated spirit level can be adjusted via three points to ensure a level installation.

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To start the test insert the powder into the funnel and open it by using a slider. To measure the angle of repose, the product flows through the funnel and is collected on a 100mm diameter dish forming a cone. Once the powder flow stops, use the supplied digital height gauge to measure the height of the cone at its tip. Since the surface of the collecting dish is completely filled, the cone angle can easily be calculated.



To measure the flowability, a stopwatch and a laboratory balance are used to check the time it takes for 100g of sample to flow through the funnel and to be collected inside a plastic beaker. Changing between these modes of operation is easy and does not require the use of any tools.

### **Advantages**

- » An affordable alternative to automated solutions like the Pharma Test PTG-S5 instrument
- » Simple to use and yet produces reliable results
- » Sturdy design using sliding profiles that can be locked into position
- » Includes levelling screws and spirit gauge

### **Features**

- » Fully USP <1174>, EP <2.9.36>, EP <2.9.16 and ISO 4324 (12/83) compliant
- » Measure angle of repose, flow-time and flowability using the same instrument
- » Cone height measurement for angle of repose via included digital height marker
- » Flowability measurement using stopwatch and analytical balance (not included)
- » Optional (manual) stirrer for badly flowing powders available

## Standard Scope of Supply

PTG-M100 comes ready to use with the following standard scope of supply:

- » PTG-M100 instrument
- » Digital height gauge
- » 10, 15 and 25mm diameter stainless steel pouring nozzles
- » 600ml beaker
- » Comprehensive documentation folder including:
  - » User manual
  - » QC/DQ testing certificate
  - » IQ documentation
  - » OQ documentation
  - » Conformity Declaration
  - » CE/EMC Declaration
  - » Instrument logbook

## Options

- » PTG-M100 manual stirrer for badly flowing products
- » Calibration certificate for digital height marker
- » Stopwatch and analytical balance for flowability measurement
- » Additional pouring nozzles with different diameters available on request
- » Full range of certified validation tools available

## Technical Specifications

Parameter	Specification
<b>Digital height gauge resolution</b>	0.01mm
<b>Digital height gauge reproducibility</b>	0.01mm
<b>Digital height gauge max. measurement speed</b>	1m/s
<b>Digital height gauge power</b>	Button cell battery 1.5V, LR44/AG13
<b>Instrument dimensions<sup>1</sup></b>	Approx. 300 x 500 x 500mm (length x width x height)
<b>Packaging dimensions<sup>1</sup></b>	Approx. 780 x 380 x 500mm (length x width x height)
<b>Net / gross weight<sup>1</sup></b>	Approx. 14kg / approx. 16kg
<b>Certification</b>	All components certified to USP / EP requirements
<b>CE certification</b>	All CE certification provided
<b>Validation</b>	All IQ & OQ documents included

We reserve the right to make technical changes without any prior notice.

<sup>1</sup> Including digital height gauge