

PTF 3DR

Semi-Automated Tablet Friability Test Instrument

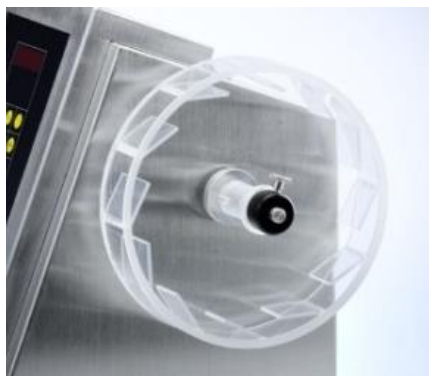
The PTF 3DR is a triple drum semi-automated Friabilator with automated sample discharging option at the end of a test run and an online Analytical Balance connecting port. It is equipped as standard with three Perspex (plexi glass) Friabilator Drums attached to a single drive axis.



PTF 3DR multiple drum Tablet Friability Test Instrument

General Information

A DC motor is used to rotate the drums, the rotation speed can be selected as well as the number of drum revolution or the total testing time. One of the testing criteria of mechanical strength according to the USP <1216>, EP <2.9.7> and other pharmacopoeia of Tablets and Cores is Friability and Abrasion testing. During the process of coating, transportation, packing etc. the tablet will lose some weight. To measure the weight loss the samples are counted and weighed. Thereafter the Friability test is performed following the individual monographs of the Pharmacopoeia. When finished the samples have to be de-dusted and weighed again. Actually the difference between the weight before and after the test is determined as Friability which usually should not exceed 1%. Tablets of a weight of more than 650mg or a diameter more than 13 mm are tested while the apparatus is lifted at one side for about 10°. We offer to the user a series of instruments to meet his requirements.

**Abrasion Drums**

Each of the instruments can be optionally equipped with an Abrasion Drum having a diameter of 20 cm and inside 12 Lamellas (not for automated discharging available). The standard Friability drum causes the samples to roll and fall during the test while the Abrasion drum continuously stresses the sample by abrasion of the lamellas.

PTF 3DR

Automated Tablet Friability Test using 3 drums. The standard instrument includes an RS232 Port for an online connection of a Mettler or Sartorius Analytical Balance (0.1mg accuracy). This does allow to weigh the cleaned tablet cores prior and after the test and to receive a printed report including statistical calculation of 3 runs at the same time due to the number of drums in use.

Adjustable Rotation Speed

A noiseless DC gear motor offering adjustable rotation speed in the range of 20-60rpm does drive the drum axis. The drums are made from Plexiglas (Perspex) and separated into two parts, the drum body and a removable cover, opened to clean the drum from inside when required. The samples are discharged after the test through corresponding holes inside the drum body into a stainless steel collector. The bottom of the stainless steel collectors is made from perforated metal to allow the removal of dust and particles which is again collected inside an inox tray. Test information, product description and other entries are done using the alpha numerical keyboard of the instrument. A dual line LCD screen informs the user of each of the data entry steps and the test results.

Principle of Operation

Use the on-line connection for a balance and a PCL printer. Clean the samples from any dust prior to the test. Weigh the samples using the attached Analytical Balance. As soon as the result has been transmitted to the PTF DR introduce the tablets into the drum(s) of the instrument via the filling hole. Program the test information, such as speed, time etc. and start the run. When the test is finished the drum revolution stops and the samples are automatically discharged into individual collectors. Dedust the samples using a brush, after weigh again. The result is immediately displayed and printed in form of a GLP like report including the instruments serial number, date, time, user name and product data. The maximum mean weight loss from 3 consequent tests should not exceed 1%.

Advantages

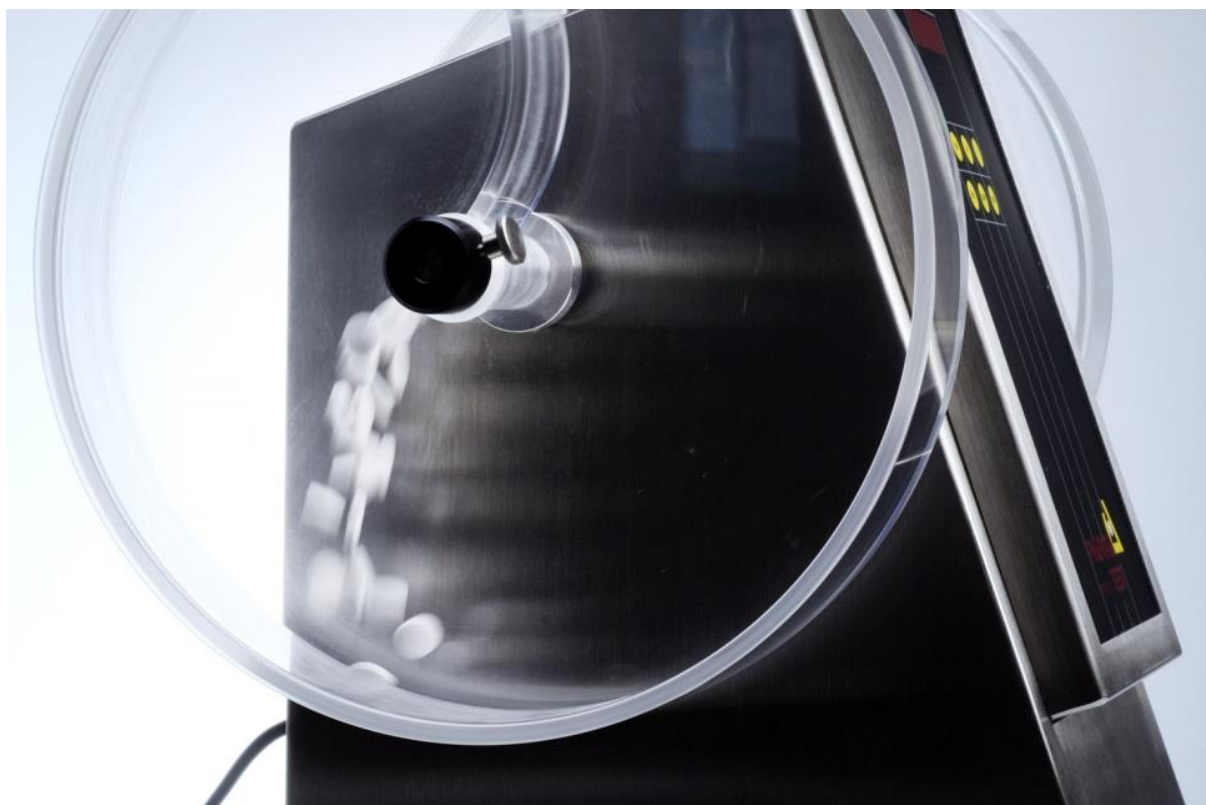
Some of the highlights the PTF 3DR semi-automated friability testing instruments offer are:

- » LC Display showing actual and target settings
- » GLP compliant stainless steel housing
- » Dual operation mode adjustment; number of revolutions or rotation time
- » Variable drum rotation speed
- » Automated sample discharge at the end of a test run
- » Single or multiple test mode including statistical calculation of abrasion loss
- » Alpha-numerical keyboard for data entry
- » Printer port for DOT-Matrix or PCL5 printer connection and result print-out
- » RS232 data transfer interface
- » RS232 balance connection port
- » Easy to operate and set-up

Features

The main features of the PTF DR semi-automated friability testing instruments are:

- » 3 friability drums made from Plexiglas (optional incl. anti-static coating), in compliance with the USP, EP and DAB pharmacopoeia
- » LC Display informing of adjusted rotation speed and operating time (or number of revolutions)
- » Programmable number of drum revolutions or rotating time
- » All IQ, OQ, DQ/QC documentation included in the standard supply scope



Standard Scope of Supply

The PTF DR friability testing instrument comes ready to use with the following standard scope of supply:

- » PTF 3DR includes one friability drum as per USP <1216> and EP <2.9.7> monograph
- » Comprehensive documentation folder including:
 - » User manual
 - » QC/DQ testing certificate
 - » IQ documentation
 - » OQ documentation
 - » Conformity declaration
 - » CE/EMC declaration
 - » Instrument logbook

Options

In addition to the standard scope of supply Pharma Test offers a broad range of accessories and options including:

- » 10° feet to test tablets > 650mg or odd shaped samples
- » Tablet abrasion drum with lamellas
- » Friability drums with anti-static coating
- » Certified equipment for instrument functional (operational) qualification

Technical Specifications

Parameter	Specification
Display	LC Display
Data Entry	Alpha-numerical & functional keys
Information entry	Product code - 12 digits
	Batch number - 12 digits
Setting number of revolutions	1 to 9999
Setting rotation timer	1 to 9999 seconds
Drum rotation speed	Adjustable speed between 20 - 70 rpm
Accuracy	±1 rpm

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