

PTF 30ERA

Tablet Friability Test Instrument

The PTF 30ERA is a multiple drum Friabilator with automated sample discharging option at the end of a test run. They are equipped as standard with 3 Perspex (plexi glass) Friabilator drums attached to a single drive axis.



PTF 30ERA 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 of tablets and cores is friability and abrasion testing. During the process of coating, transportation and packing the tablet will lose some amount of weight. To measure the weight loss, the samples are counted and weighed. Then the friability test is performed following the individual monographs of the relevant Pharmacopoeia. The tablets are tumbled at each turn of the drum of the friability testing instrument by a curved projection that extends from the middle of the drum to the outer wall.

10° Feature

Once the friability test is finished, the samples have to be de-dusted and weighed again. The weight difference before and after the test is determined as friability; this usually should not exceed 1%. Tablets of a weight >650mg or a bigger diameter or odd shaped samples are tested while the instrument is raised on one side using collapsible feet to an angle of 10°. The PTF ERA instruments can be operated at a variable speed setting between 20 and 60 drum rotations per minute and are available with either three drums (PTF 30ERA) or six drums (PTF 60ERA). The standard supply scope includes the friability (also known as “Roche”) drums, but abrasion drums are available as options.

Additional Abrasion Drums

The standard friability drum causes the samples to roll and fall during the test while the abrasion drum continuously puts the sample under stress by contact with lamellas. A silent DC geared motor rotates the drums at a variable speed between 20 and 60 rpm. The actual drum is made from Plexiglas (Perspex) and is separated into two parts, the drum body and a removable cover. A hole inside the drum is used to fill samples and empty them at the end of a run into separate collectors.



Principle of Operation

Clean the samples from any dust prior to the test. Weigh the samples and introduce them into any drum of the instrument. 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 stainless steel collectors. The collector has a perforated bottom for easy de-dusting, while the dust is collected inside the collector tray. Weigh the cleaned samples again. The maximum mean weight loss from 3 consequent tests should not exceed 1%. The instrument itself is made from high quality stainless steel which fully meets the current GLP requirements. An anti-static coated friability drum is available as an option.

Advantages

Some of the highlights the PTF 30ERA friability testing instruments offer are:

- » LED display showing actual and target settings
- » GLP compliant stainless steel housing
- » Dual operation mode adjustment; number of revolutions or rotation time
- » Variable speed control
- » 3 testing drums with easy filling and discharging hole
- » Easy to operate and set-up

Features

The main features of the PTF ERA friability testing instruments are:

- » 3 friability drums made from Plexiglas (optional incl. anti-static coating), in compliance with the USP, EP and DAB pharmacopoeia
- » LED 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 30ERA friability testing instrument comes ready to use with the following standard scope of supply:

- » PTF 30ERA includes three 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	LED Display
Data Entry	Functional Keys
Setting number of revolutions	1 to 9999
Setting rotation timer	1 to 9999 seconds
Drum rotation speed	Adjustable speed between 20 - 70 rpm Accuracy at 20 - 30 rpm ± 1 rpm, >30 rpm ± 2 rpm
Bench Space Requirement	PTF 30ERA: W 49.0 x D 55.0 cm PTF 60ERA: W 49.0 x 75.0 cm
Certification	All components certified to USP / EP requirements
CE / EMC Certification	All CE / EMC Certification provided
Validation	All IQ & OQ documents included

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