



PHYSICALS GUIDE

OUR BROAD RANGE OF PHYSICAL TESTERS

OUR PHYSICAL TESTERS PROGRAM

ERWEKA offers a broad range of physical testers for different .



TABLET HARDNESS TESTERS

We offer a wide range of tablet hardness testers - from the manual 5-in-1 TBH II up to the fully automated testers EasyCheck and MultiCheck 6.

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DISINTEGRATION TESTERS

To analyse disintegration time, we offer manual and automated disintegration testers.

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TAPPED DENSITY TESTERS

The SVM II and its accompanying noisebox are the perfect solution for tapped density testing.

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FRIABILITY/ABRASION TESTERS

The TAR II is our friability and abrasion tester.

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VACUUM LEAK TESTERS

The VDT/S is our vacuum leak tester.

VDT/S

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GRANULATE FLOW TESTERS

For testing of flow characteristics of granules and powders.

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GT & GTB
SMG

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SUPPOSITORY TESTERS

We offer a variety of suppository testers for testing of suppository disintegration, hardness, melting point and penetration testing.

SSP
PM 30
ST 35
SBT 2

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5-IN-1 MANUAL TABLET HARDNESS TESTING

TBH II OVERVIEW

The ERWEKA TBH II redefines manual tablet testing by combining precision, flexibility, and user-friendly operation in one compact device. Built for demanding pharmaceutical quality control and research laboratories, the TBH II delivers accurate, repeatable results across all key test parameters while streamlining your workflow.

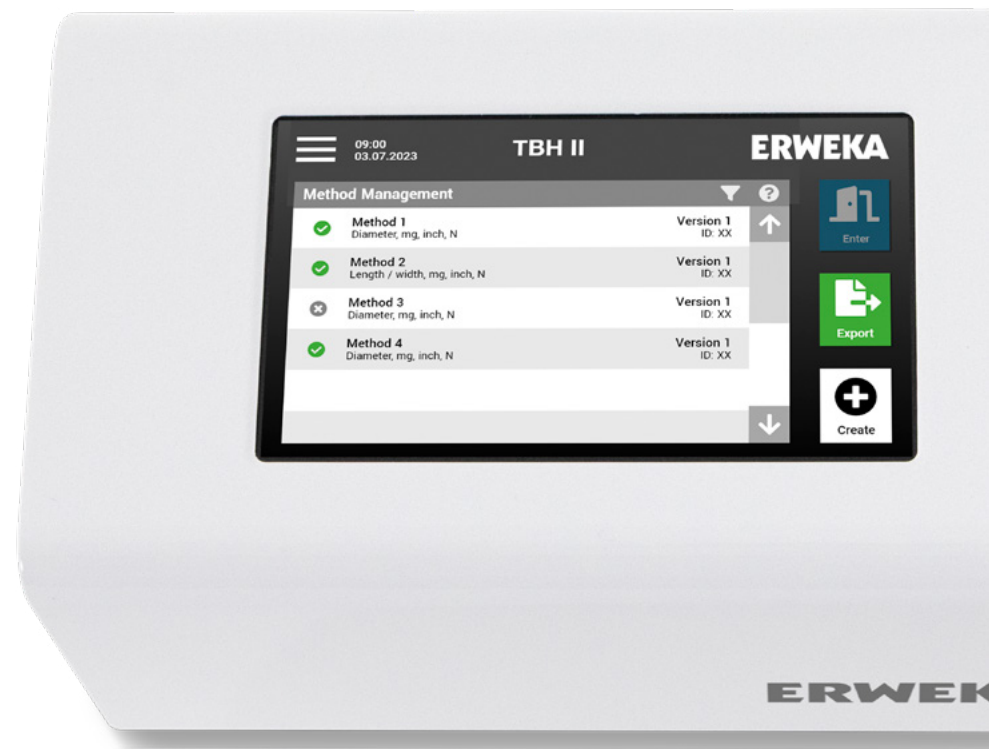
With manual measurement of five critical physical properties—hardness (up to 500 N), thickness, width (for oblongs), diameter (for round tablets) or length (for oblongs), and weight—the TBH II ensures comprehensive, pharmacopoeia-compliant tablet analysis. Its modern, top-mounted touchscreen interface offers intuitive guidance through every test step, supported by robust mechanics and an ergonomic, space-saving design.

Four interchangeable, magnetic inserts (flat / 1 / 2 / 3 mm groove radius) provide secure positioning for a wide variety of tablet shapes and sizes. The TBH II accommodates tablets from 1 - 30 mm as standard, with optional tablet holder extending support up to 60 mm. The smart collection container, with automatic test continuation, maintains a clean and safe workspace, while intelligent balance connectivity enables seamless, automatic weight data transfer.

With features such as TestAssist for guided testing and test management, secure multi-user administration, network data export via Export Manager, qualification assistants, and AutoCal 2.0 support for electronic calibration, the TBH II stands out as a reliable, versatile, and future-ready solution for your laboratory.

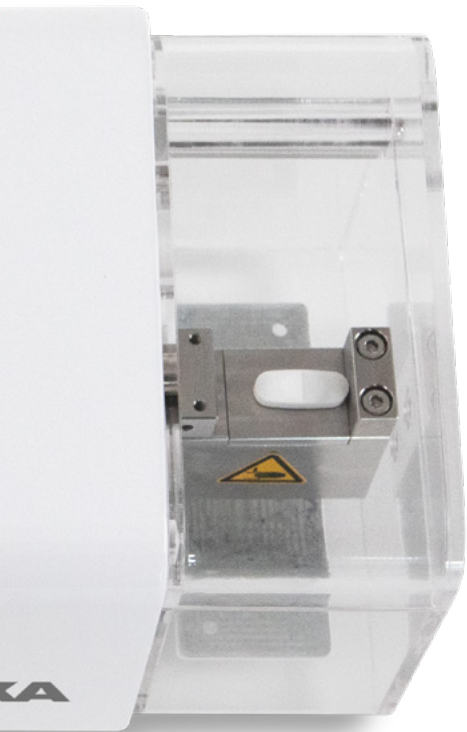
Comprehensive 5-parameter testing

Easily measure all essential physical properties - hardness (up to 500 N), thickness, width (for oblongs), diameter (for round tablets) or length (for oblongs), and weight - in one compact device. The TBH II provides accurate, repeatable results for all tablet shapes and ensures full compliance with international pharmacopoeial standards.



Art. No. TBH II Manual Hardness Tester

29953 TBH II hardness tester for up to 5 parameters (500 N)



Modern touch user interface

The intuitive, top-mounted touchscreen puts every function at your fingertips. Effortlessly set up tests, view live results, and navigate menus with a clear, user-friendly interface designed for efficient, error-free operation in busy laboratory environments.

Interchangeable, magnetic grooves

Four interchangeable, magnetic inserts (flat / 1 / 2 / 3 mm groove radius) allow secure positioning and precise alignment for various tablet sizes and shapes. The TBH II supports tablets from 1 - 30 mm as standard, with optional, user-changeable breaking jaws available for larger tablets up to 60 mm - ensuring high versatility.

TestAssist with test management

TestAssist guides you step by step through every testing procedure, reducing training time and minimizing user error. Create, save, and recall test methods with fixed parameters (Batch ID still changeable) for consistent workflows and reliable documentation - tailored to your lab's needs with test management.

Advanced user management

Multi-user functionality with configurable access levels and password protection keeps your data secure. The TBH II's user management allows user actions with complete transparency, supporting safe, controlled operation by different users in your laboratory.

5 PARAMETERS



Weight



Thickness



Width



Diameter / Length



Hardness

MANUAL TABLET HARDNESS TESTERS

TBH 125

Dual-mode tester with robust design and basic functions.

The ERWEKA TBH 125 tablet hardness tester is the ERWEKA entry-level tablet hardness and combination tester. The device is perfectly suited for quick and manual testing of up to 99 samples. Depending on the device model, automatic measurement can be taken for tablet hardness and thickness (optional), diameter (for round tablets) or length (for oblongs). The integrated electronic measurement cell ensures highest accuracy for precise measurement results. Due to the USB printer interface the results can be printed directly.



100%

100% USP/EP/JP compliant



Setting of test speed (0.5 - 3.00 mm/sec.)



Adjustment of force increase (10 - 200 N/sec.)



Collection container for broken samples

Art. No. TBH 125 Manual Hardness Tester

17910 TBH 125 TD (300 N), incl. thickness and diameter measurement

17913 TBH 125 TD (500 N), incl. thickness and diameter measurement

TBH 325

Manual tester with product memory.

The ERWEKA TBH 325, part of manual hardness and combination tester product range, features an integrated product memory for up to 50 products. The TBH 325 provides various documentation and evaluation possibilities. Depending on the device model, automatic measurement can be taken for tablet hardness and thickness (optional), diameter (for round tablets) or length (for oblongs) and weight (optional). Up to 100 tablets can be precisely tested in one run.



100%

100% USP/EP/JP compliant



Adjustable breaks between the test runs



Adjustment of force increase (10 - 200 N/sec.)



LAN/USB interface

Art. No. TBH 325 Manual Hardness & Combination Tester

17919 TBH 325 TD (500 N), incl. thickness and diameter measurement

SEMI-AUTOMATED TABLET HARDNESS TESTER

TBH 425

The ERWEKA TBH 425 is a semi-automatic tablet hardness and combination tester for measuring of up to ten samples. The samples are automatically transported to the test station by a star-shaped rotary magazine. Depending on the device model, automatic measurement can be taken for tablet hardness and thickness (optional), diameter (for round tablets) or length (for oblongs). In combination with the optional balance the weight can also be determined.

In addition, the rotary magazine enables full visual inspection of the test processes at all times. Up to 100 tablets can be precisely tested in one run and the acquired data can easily be documented and evaluated. Therefore the TBH 425 can be connected to a printer via the USB printer interface. Via a numeric keypad with alphanumeric subfunction the nominal hardness values in combination with three individual tolerances can be entered for up to 50 products and afterwards recalled for testing.

In addition, the unit generates a calibration print-out outlining individual calibration data and further information (service date and time, serial number).



Art. No.	TBH 425 Semi-automated Tablet Hardness Tester
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17928	TBH 425 D (500 N), incl. diameter measurement & magazine for 10 tablets
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17929	TBH 425 TD (500 N), incl. thickness and diameter measurement & magazine for 10 tablets
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AUTOCAL 2.0 - EASY AUTOMATIC CALIBRATION


The certified AutoCal 2.0 system is an electrical device for calibrating the integrated tablet hardness measuring system. Not requiring any measurement weights, AutoCal 2.0 is simply

connected to the USB port and ensures the adjustment/calibration either in conjunction with the MC.NET software or the calibration function integrated into the firmware.

Art. No.	AutoCal 2.0
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17963	AutoCal 2.0, dynamic calibration system
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KEY FACTS

-  100% USP/EP/JP compliant
-  Star feeder magazine
-  Setting of test speed (0.5 - 3.00 mm/sec.)
-  Adjustment of force increase (10 - 200 N/sec.)



KEY FACTS

100%

100%
USP/EP/JP
compliant



Oblong Slider



Integrated weight
measurement



Test memory, Audit
Trail Light &
data export



Star feeder
magazine



AutoCal 2.0
calibration
possible



Art. No. EasyCheck Automated Tablet Hardness Tester

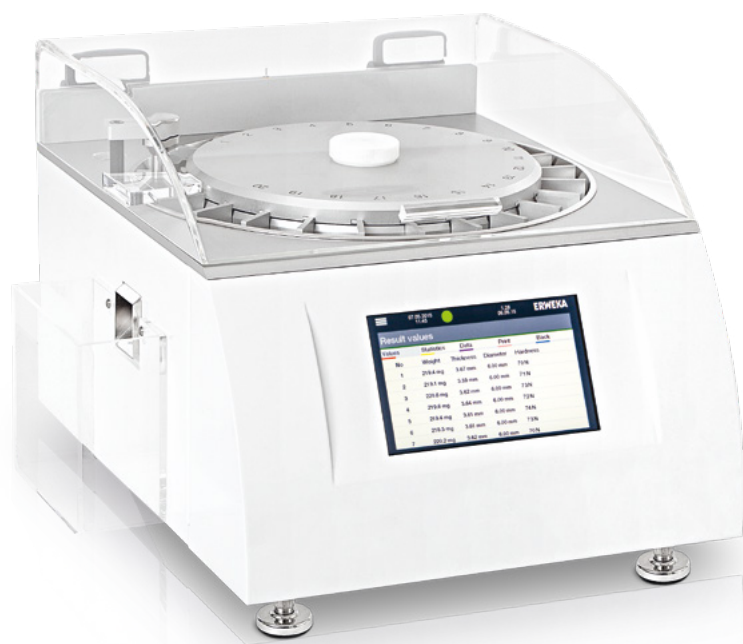
26340 EasyCheck Basic Rev1, hardness combination tester
for 4 test parameters (500 N)

26339 EasyCheck Pro Rev1, hardness combination tester for
5 test parameters

FULLY AUTOMATED TABLET HARDNESS TESTER

EASYCHECK

EasyCheck is the entry-level tablet combination tester that tests for up to 5 parameters. The compact system is 100 % compliant with all common pharmacopoeias, and excels, above all, through innovative design features and a clear focus on essentials: Its integrated load cell automatically weighs samples, the Oblong Slider automatically brings evenly shaped oblongs into perfect alignment and the intuitive touch display allows storage of up to 100 products/methods. EasyCheck offers a test memory for up to 1 million test results directly on the unit – enabling results from earlier tests to be re-called whenever required.



In addition, extensive integrated calibration functions and the Audit Trail Light feature (logging What, Who, When) ensures that you have access to precise test results and extensive documentation of all working steps - highest user convenience combined with powerful functionality. Optionally the Easy Check offers a data export function to CSV and XML format. EasyCheck is your entry-level device for easy, fully automatic and highly precise testing for up to 5 parameters!

	EasyCheck Basic	EasyCheck Pro
Main application	Round tablets, evenly shaped oblongs	Round tablets, evenly shaped oblongs
Measurement values	4 parameters Weight, thickness, diameter, hardness	5 parameters Weight, thickness, diameter/length, width, hardness
Touch display	✓	✓
Oblong Slider®	—	✓
Memory for up to 1 million test results	✓	✓
Audit trail light (21 CFR Part 11 compliant)	✓	✓
Data export in CSV and XML format	optional	optional

FULLY AUTOMATED TABLET HARDNESS TESTER

MULTICHECK 6

The MultiCheck 6 offers ease of operation, maximum efficiency and enhanced operator convenience. This fully automatic combination tester is packed with innovative technology: The intuitive touch display with integrated MC.NET software functionality, the capsule weight measurement system and the patented Oblong Navigator® are only some of the innovative features. In addition, the MultiCheck 6 provides an unsurpassed low noise level and cleanest operation in its class.

Extensive integrated calibration functions and the Audit Trail Light feature (logging What, Who, When) ensures access to precise test results and extensive documentation






of all working steps – highest user convenience combined with powerful functionality. Proven features have been retained: MultiCheck 6 can be equipped with the 12 batch magazine and test up to five tablet parameters, fully automated and 100 % compliant with all pharmacopoeias around the world: A true all-rounder.

	MultiCheck 6 Standard	MultiCheck 6 Allrounder
Main application	Round tablets, dragées, evenly shaped oblongs	Round tablets, dragées, evenly shaped oblongs, odd-shaped oblongs
Measurement values	4 parameters Weight, thickness, diameter, hardness	5 parameters Weight, thickness, diameter/length, width, hardness
Touch display	✓	✓
Separation drum	✓	✓
Capsule measurement	✓	✓
Alignment threshold (fixed)	—	—
Alignment threshold (electronic, adjustable)	✓	✓
Slot for oblongs	✓	not required
Positioning arm for oblongs	✓	✓
Oblong Navigator®	—	✓



KEY FACTS

-  100% USP/EP/JP compliant
-  Oblong Navigator®
-  Integrated weight measurement
-  Touch display
-  AutoCal 2.0 calibration possible

Art. No.	MultiCheck 6 Automated Tablet Hardness Tester
29956	MultiCheck 6 Rev.1.3.0 tablet combination tester configuration 2 (4 parameter, 500 N)
29957	MultiCheck 6 Rev. 1.3.0 tablet combination tester Allrounder configuration 3 (5 parameter, 500 N)

KEY FACTS

100%

100%
USP/EP/JP
compliant



1 or 2
test stations



Easy control via a
large LED display



Compact entry-level
device

COMPACT DISINTEGRATION TESTING

ZT 120 LIGHT SERIES

The ERWEKA ZT 120 light series is the perfect entry-level disintegration tester with one or two single-motor driven USP/EP/JP compliant test stations. The compact unit of our light series is equipped with an integrated flow-through heater and a moulded one-piece PET water bath (no leaking/breaking, easy to clean) with cover.

The ZT 120 light series can be easily operated via a membrane keypad. Defined test run parameters such as run time and water bath temperature are entered with symbol keys and the actual values are then shown on large and bright LED displays. The run-time counter automatically starts as soon as the basket rack assembly is lowered into the test media.

Art. No.	ZT 120 light Series
25041	ZT 121 Light disintegration tester with Quick Clean basket rack type "A" (230V)
25042	ZT 121 Light disintegration tester with Quick Clean basket rack type "A" (115V)
26243	ZT 122 Light disintegration tester with 2 Quick Clean basket rack type A (230V)
26262	ZT 122 Light disintegration tester with 2 Quick Clean basket rack type A (115V)



ASYNCHRONOUS DISINTEGRATION TESTER

ZT 320 SERIES

The test stations of our ZT 320 series are driven individually. Each test station is controlled by its own keypad. After programming the required test run-time, the basket rack assembly with its loaded samples is automatically lowered into the media. On completion of the preset run-time or when the stop button is pressed, the basket rack is raised from the media to prevent further disintegration of the samples (optional).

Art. No.	ZT 320 Series
25440	ZT 321 with automatic lift-in/out, 1 test station
25442	ZT 322 with automatic lift-in/out, 2 test stations
25444	ZT 323 with automatic lift-in/out, 3 test stations
25446	ZT 324 with automatic lift-in/out, 4 test stations



KEY FACTS

100%

100%
USP/EP/JP
compliant



Individually
driven basket
racks

KEY FACTS

100%

100%
USP/EP/JP
compliant



Intuitive touch
interface



Automated
detection of
disintegration



Cable-free AirBasket



LAN/USB
data export



AUTOMATED DISINTEGRATION TESTER WITH TOUCH DISPLAY

ZT 730 SERIES WITH AIRBASKET

The ERWEKA ZT 730 Series with cable-free AirBasket automatically determines the disintegration time of samples by using a unique system of magnets and sensors. The ZT 730 is available with one (ZT 731) or two (ZT 732) individually driven test stations and is equipped with an integrated flow-through heater.

Its cable-free AirBasket makes disintegration testing with automatic determination of the disintegration time as easy and fast as possible. The AirBasket is sealed and dishwasher-proof. It is also durable and can be used in acidic media. The baskets are available as type A baskets with 6 test tubes for standard tablets, or type B baskets with 3 test tubes for bigger tablets (according to USP/EP/JP standards). The reliable waterbath technology utilizes the thermal inertia of water to create a steady temperature for testing according to USP/EP/JP standards. Its temperature sensor PT 100 allows constant control of the water bath temperature. The ZT 730 series is controlled through an intuitive 7" touch-screen and is capable of storing and retrieving up to 200 products/methods with results and parameters.

Art. No.	ZT 730 Automatic Disintegration Tester
29851	ZT 731 (REV.3.0.0) automated disintegration tester with 1 test station (230 V)
29852	ZT 731 (REV.3.0.0) automated disintegration tester with 1 test station (115V)
29853	ZT 732 (REV.3.0.0) automated disintegration tester with 2 test stations (230 V)
29854	ZT 732 (REV.3.0.0) automated disintegration tester with 2 test stations (115V)



Type A and Type B AirBaskets available.

5-IN-1 TAPPED DENSITY TESTER

SVM II

The SVM II is our latest generation of tapped density tester. With unprecedented flexibility and intelligent features, it makes tapped density testing as easy and reliable as never before.

The 7" high resolution touch display with a modern user interface focuses the user on the most important task the SVM II has to fulfil - 100% USP/EP compliant tapped density testing. With the automatic calculation features of the TestAssist, the user is guided step-by-step through the testing process as quickly as possible. It also automatically calculates the Hausner Ratio and compressibility index and prints the reports after every test.

In addition to its ease of use, the SVM II is the most flexible tapped density tester we ever built. The SwitchPlate system enables 5 different versions of the SVM II with USP 1 and USP 2 method in either one or two test station configurations or a combination for USP 1/2. USP 3 accessory can be installed at any test station. And the best part - everything can also be upgraded at a later time point!

SVM II supports a variety of methods and norms: From USP 1, USP 2 and USP 3 to ASTM B527-15 and DIN EN ISO 787-11:1995 - with the SVM II, users are on the safe side of valid and conform tapped density testing.

Art. No. SVM II Tapped Density Tester

27904 SVM II base device. Ready for USP method cover plates







Different SwitchPlates available





KEY FACTS

-  100% USP methods 1, 2, 3, ASTM B527-15 and DIN ISO 787-11:1995
-  Upgradeable at any time
-  Intuitive touch interface
-  One or two test stations
-  One base SVM II - 5 versions possible



Noise box for 25 db(a) noise reduction available

FRIABILITY & ABRASION TESTING

TAR II

The TAR II is the next step in intelligent, upgradeable friability & abrasion testing according to USP/EP/JP. Its unprecedented flexibility and intelligent features such as TestAssist and direct balance data transfer make TAR II the most advanced friability tester on the market.

The 7" high resolution touch display with a modern user interface focuses the user on the most important task the TAR II has to fulfil - 100% USP/EP compliant friability testing. With the automatic calculation features of the TestAssist, the user is guided step-by-step through the testing process as quickly as possible and with its advanced balance connection feature, data is directly transmitted and calculated.

In addition to its ease of use, the TAR II represents our highest level of flexibility and performance in friability testing. TAR II can be configured with one or two test stations and the optional intelligent balance feature - and the best part - all can also be upgraded at a later time point! A stand for the 10° position required by USP/EP is also included.

Art. No. TAR II Friability & Abrasion Tester

29036 TAR II incl. 1 test station (left)



KEY FACTS



One or two test stations



Intuitive touch interface



TestAssist with automatic calculation



Intelligent balance connection with data transfer



Upgradeable at any time

VACUUM LEAK TESTER FOR BLISTERS AND OTHER PACKAGING FORMS

VDT/S

The VDT/S is a vacuum leak tester for blisters and other packaging forms. The maximum vacuum (absolute pressure range up to 100 mbar) and the vacuum hold time before release can be easily set via the symbol keypad. The actual vacuum is continuously displayed on the LED display. Test run parameters such as actual/set vacuum value and hold time can be simply documented via a USB interface or a connected printer.

Leak testing

For checking the density the ERWEKA VDT/S performs a methylene blue dye test, which is divided into several phases. During the pressure maintenance phase the blisters are exposed to a vacuum, which is generated in the vacuum container. Afterwards the container is ventilated. In the subsequent penetration process the blister is resting in the methylene blue solution, so that the solution can suck into any imperfectly sealed packaging. The integrated vacuum pump can be recalibrated using the optional validation kit which includes a vacuummeter, type DVR.

Art. No. **VDT/S Vacuum Leak Tester**

18035 VDT/S vacuum leak tester



KEY FACTS

100%

100% USP compliant



Easy to use



LED display



USB interface

GRANULATE FLOW TESTER

GTL

The GTL is the basic ERWEKA unit for testing flow characteristics of powders and granulates, to ensure that accurate dosing is maintained.

It supports the determination of the flow time of a pre-weight sample (DAB 10) and the determination of the flow time of a pre-defined sample volume.

The GTL is handled by numeric membrane keys and the results are displayed by the illuminated LC display. As standard, the unit is delivered with a stainless steel hopper (200 ml) and three stainless steel outlet nozzles (10/15/25 mm) which can be exchanged by a quick coupling. Additional stainless steel hoppers (100/480 ml) and outlet nozzles (6/8/11.3 mm) are available as options.



Granulate flow testing

Art. No.	GTL Granulate Flow Tester
17977	GTL powder & granulate tester
Art. No.	GT II Granulate Flow Tester
28366	GT II powder and granulate tester with stirrer
Art. No.	GTB II Granulate Flow Tester
27052	GTB II powder & granulate tester
27053	GTB II powder & granulate tester with stirrer

GT & GTB II

The GT II features a special integrated scale that measures the weight of samples while simultaneously assessing their flow behavior. Users can measure the flow time of a specific sample weight, the flow of a defined sample volume, or the weight passed within a given time. Operation is convenient thanks to the large full-graphic LC display and membrane keypad, and for easy comparison of results, the device generates a flow graph (quantity/time) that can be printed.

The GTB II, as the fully equipped all-rounder of the GT family, offers all standard flow property measurements as well as a fully automatic method for determining the angle of repose. To do this, the device forms a powder or granule cone and measures its geometry optically via a class 2 laser, displaying the resulting angle of repose. A stirring unit with four speed levels is included as standard. Like the GT II, the GTB II is operated via a large full-graphic LC display and membrane keypad. For calibration of the angle-of-repose measurement, optional 30° and 40° cones are available, while a 45° cone is included as standard.



MANUAL POWDER AND GRANULATE DENSITY TESTING

SMG 697

The manual ERWEKA SMG 697 is the unit for the reproducible determination of apparent bulk density, which can be used with all free flowing powders or granulates. According to DIN ISO 697, the apparent bulk density is determined by measuring the mass of powder in a receiver of known dimension after filling from a funnel of a specified shape under specified conditions.

Included in the delivery is the apparatus SMG 697, operating instructions and a calibration certificate.



Granulate flow testing

Art. No.	SMG 697 Bulk Density Tester
23200	SMG 697 bulk density tester with calibration certificate



SUPPOSITORY MELTING POINT TESTER

SSP

The ERWEKA SSP measures the melting point of suppository samples. It consists of a graduated tube with an integrated test chamber made of glass. The sample to be tested is placed in the spiral shaped glass test basket inside the test chamber, which is surrounded by a water jacket.

The water inside the jacket can be simply heated by the optional circulation heater EST 2 and the melting point is determined by a stop watch.

Art. No. SSP Suppository Melting Point Tester

18018 SSP suppository melting point tester



Suppository melting
point testing



SUPPOSITORY PENETRATION TESTER

PM 30

The ERWEKA PM 30 measures the softening time of suppositories. Suppositories must disintegrate, dissolve or melt at body temperature in order to release their active ingredients to the body. ERWEKA offers a version for USP method A and method B.

The PM 30 penetration tester (compliant to EP, Apparatus A) and the PM 3 (acc. to EP, App. B) have been designed to carry out reproducible measurements regarding the softening time of suppositories at predetermined temperatures. The construction of the tester makes visual observation of the melting characteristics extremely simple. In total, the unit comprises of three test stations.

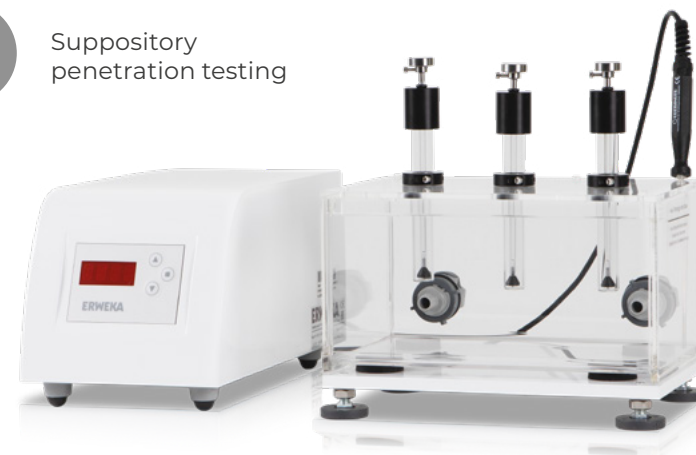
Art. No. PM 30 Suppository Penetration Tester

26973 PM 30 Rev. 2 App. A suppository penetration tester

27252 PM 30 Rev. 2 App. B suppository penetration tester



Suppository
penetration testing



SUPPOSITORY DISINTEGRATION TESTER

ST 35

The ERWEKA suppository disintegration tester ST 35 comes with three turning test stations, each located inside a four liter glass vessel with an optional magnetic stirrer. Additionally, the unit contains a thermostatically heated water bath, in which the test stations are placed. The test stations are automatically turned 180° in adjustable intervals. The ST 35 features an integrated flow-through heating system (accuracy $\pm 0.2^\circ\text{C}$) and an internal temperature sensor for temperature display. Test time and nominal bath temperature are easily entered via the membrane keys. Current test time as well as actual water temperature are shown on a LED display. On request, an alarm may be selected to sound upon completion of the preset test time. Due to the width of the ST 35, the test stations can be easily separated to facilitate the cleaning process.

Art. No.	ST 35 Suppository Disintegration Tester
25400	ST 35 suppository disintegration tester without stirrer
25401	ST 35 suppository disintegration tester with stirrer



Suppository disintegration testing



SUPPOSITORY HARDNESS TESTER

SBT 2

The suppository hardness tester (type SBT 2) consists of an electrically heated chamber with an integrated sample holder and a number of interchangeable plastic inserts to accept various sized suppositories. Once up to the desired temperature, the hardness is checked by weights (included in the standard delivery range) which are gradually placed on the device until the suppository collapses under the load of the added weights.

The results are expressed in terms of total weight required to bring about the collapse of the suppository.

Art. No.	SBT 2 Suppository Hardness Tester
26976	SBT 2 Rev. 2.0.0 suppository hardness tester



Suppository hardness testing by weight



ERWEKA GmbH

Pittlerstraße 45
63225 Langen
Germany

Phone: +49 6103 92426-200

sales@erweka.com www.erweka.com

VERDER

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Under the roof of VERDER SCIENTIFIC we support thousands of customers worldwide in realizing the ambition we share.

As their technology partner behind the scenes, we deliver the solutions they need to make progress and to improve the everyday lives of countless people. Together, we make the world a healthier, safer and more sustainable place.

