The complete range of
Hardness Testers
From manual to fully automatic

ERWEKA

Parameter:	TBH 125			TBH 325			
Automatisation:	manual						
Memory:	-			Memory for 50 products			
Audit Trail:	-						
MC.NET Software:	-						

The ERWEKA hardness tester series

The versatile range of ERWEKA hardness testers comprises all types of test equipment, from manual and semi-automated up to our fully automatic devices EasyCheck and MultiCheck 6. Our compact entry-level device TBH 125 is ideally suited for testing of up to three parameters, whereas the manual TBH 325 and the semi-automated TBH 425 enable testing of up to four parameters. Besides, our fully automatic combination testers facilitate comfortable testing of up to five parameters!

The hardness testers of the series TBH 325 and 425 feature an internal product memory for easy storage of up to 50 products. With the EasyCheck and the MultiCheck 6 up to 100 methods can be easily stored.

For calibration all devices support the automatic AutoCal 2.0, devices from series TBH 325 can also be operated in combination with the MC.NET windows software (With audit trail and result memory).

Smaller quantities can be automatically tested with the EasyCheck. The MultiCheck 6 with large magazine is especially suited for automated testing of up to 12 batches.

ERWEKA Overview

TBH 425

EasyCheck

MultiCheck 6

semi-automated

20 samples   **fully automated**   12 batches

emory for 50 products

Memory for 100 products

Audit Trail light integrated

MC.NET support with full Audit Trail

The MC.NET Software controls all devices up from series TBH 325.

Easy testing of up to 3 parameters with the **TBH 125**

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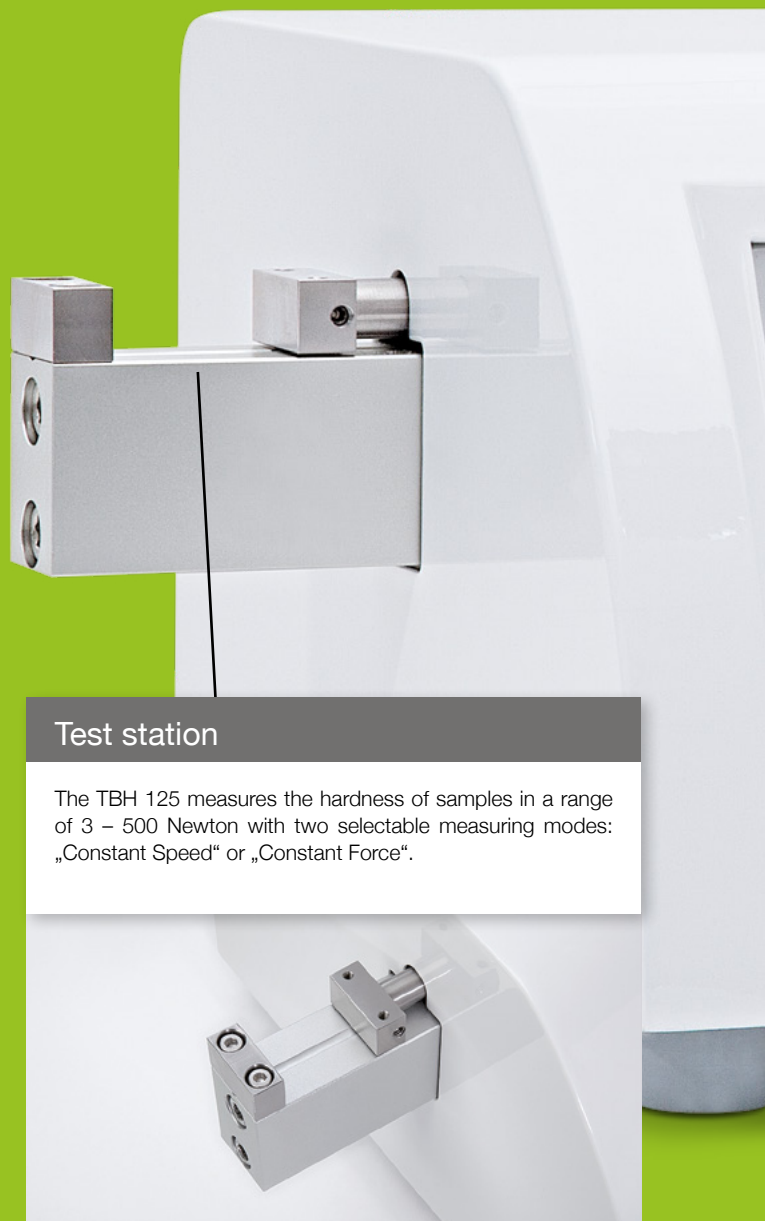
Setting of test speed (0.5 - 3.00 mm/sec.)

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

Different measuring units: Newton, Strong Cobb and Kilopond

Collection container for broken samples

Test station

The TBH 125 measures the hardness of samples in a range of 3 – 500 Newton with two selectable measuring modes: „Constant Speed" or „Constant Force".

A ridge ensures the correct alignment of samples.

3 Parameters:

Thickness   **Diameter/Length**   **Hardness**

Easy operable LED display

The test results (including date/time) are displayed on two LED screens in the following units: Newton (N), Kilopond (KP) or in Strong Cobb (SC).

USB Printer Interface

The TBH 125 features a USB-A interface for connecting selected printers. Via a USB-B interface firmware updates can be performed.

Symbol Keypad

The device provides diverse setting options and can be easily operated via a symbol keypad.

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Manual testing of up to 4 parameters with the **TBH 325**

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 offers a robust design that can be used directly within the production environments and provides various documentation and evaluation possibilities. 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.

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*. Up to 100 tablets can be precisely tested in one run.

100% 100% USP/EP/JP compliant

Setting of test speed (0.1 - 3.00 mm/sec.)

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

Adjustable breaks between the test runs

Test station

The TBH 325 measures the hardness of samples in a range of 3 – 500 Newton (optionally up to 1000 Newton) with two selectable measuring modes: „Constant Speed" or „Constant Force". The test results (including date/time) are printed in the following units: Newton (N), Kilopond (KP) or Strong Cobb (SC).

Storage for up to 50 products

The alphanumeric membrane keypad allows the comfortable data input and storage of up to 50 products. Indvidual evaluations can be created easily, due to the adaptation of the tolerance limits.

TBH 325 WTD with the precise Sartorius balance for weight measurement*.

*= Option

ERWEKA
TBH 325
Manual testing of up to 4 parameters

4 Parameters:
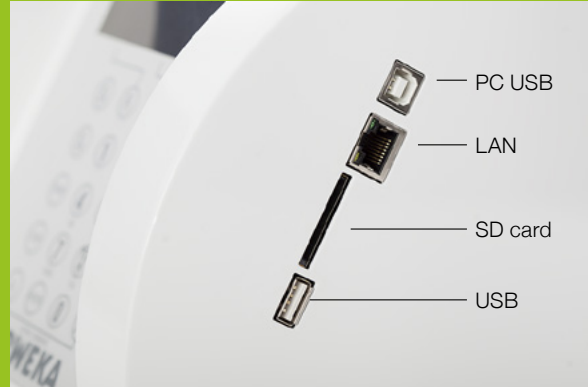
Thickness

Diameter/Length

Hardness

Weight (external)
SC kp N

Password protection of spezific menus

Some menus of the TBH 325, such as the administration, the calibration menu, the settings and the service menu, can be protected from unauthorized access via a password.

PC USB

LAN

SD card

USB

Versatile interface (USB, LAN and SD card).

Automatic calibration with AutoCal 2.0*

The calibration of the TBH 325 is completely menu-driven and may be carried out statically by weight stones or dynamically by the electronic ERWEKA AutoCal 2.0 System. In addition, the unit generates a calibration print-out outlining individual calibration data and further information (service date and time, serial number).

Multiple Interfaces - Several Documentation Options

Via the different interfaces of the TBH 325 the entered data can be stored conveniently on a USB stick or a SD memory card.

The acquired data can be documented and evaluated in a variety of ways. The USB printer interface can be connected to receive a hard-copy documentation with individual information on test run, results and statistics. Alternatively, the TBH 325 can be integrated into a computer network via the Ethernet LAN interface to receive the documentation print-out at virtually any network printer (Win.print software*).

In addition, the Ethernet LAN interface allows connecting a computer with the optional ERWEKA MC.NET software. In combination with this option the TBH 325 series is 100 % 21 CFR 11 compliant and can be controlled via a PC.

With the optional MC.NET software the TBH 325 can be controlled via a PC*.

Semi-automated testing with the 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 be documented and evaluated in a variety of ways. Therefore the TBH 425 can be connected to a printer via the USB printer interface or directly integrated into a computer network via the Ethernet LAN interface.

100% 100% USP/EP/JP compliant

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

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

Automatic cleaning of the magazine

Collection container for broken samples

Star-shaped rotary magazine

The star-shaped rotary magazine of the THB 425 enables semi-automatic testing of up to ten samples. All you have to do is to insert the tablets in the intended chambers of the magazine - the subsequent testing is completely performed by the TBH 425. Sample residues are automatically removed during sample transport.

*= Option

ERWEKA TBH 425
Semi-automated testing of up to 4 parameters

4 Parameters:

Weight	Thickness	Diameter/Length	Hardness

With the optional MC.NET software the test results can be easily stored in a database*.

Hardness software MC.NET

The Ethernet LAN interface allows connecting a computer with the ERWEKA MC.NET software. In combination with this option the TBH 425 series is 100 % 21 CFR 11 compliant and can be controlled via a PC. All test results are documented in a detailed audit trail.

Storage for up to 50 products

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.

Fully automatic hardness testing as easy as never before

EasyCheck is your entry-level device for easy, fully automatic and highly precise testing for up to 5 parameters!

The EasyCheck is the fully automated tablet combination tester that tests up to 5 parameters. The compact system is 100 % compliant with all common pharmacopeias and excels, above all, through innovative design features and a clear focus on essentials: Its integrated weighing 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.

Integrated spirit level

The integrated spirit level is used for accurate alignment of the EasyCheck system on the laboratory workbench.

Integrated weight measurement

An integrated weighing cell automatically determines the tablet weight with maximum accuracy and attributes it to individual samples.

Oblong Slider®

The slider technology perfectly aligns evenly shaped oblongs for easy determination of width, length and tablet hardness.

Width measurement   Length measurement

ERWEKA

EasyCheck
Fully automated testing of up to 5 parameters and 20 samples

5 Parameters:

Weight	Thickness	Width	Diameter/Length	Tablet hardness

Star-shaped rotary magazine

A star-shaped rotary magazine made of stainless steel and aluminium provides 20 test positions for samples and enables full visual inspection of the test processes at all times.

Acrylic cover

An acrylic cover protects the entire rotary magazine, excluding external effects on the test.

Touch display

The user-friendly colour touch display is highly intuitive to use, and provides storage capacity for up to 100 products/methods, along with powerful user management functionality.

Test memory, audit trail & data export

EasyCheck is fitted with a test memory to accommodate up to 1 million test results, audit trail light feature for paperless reporting and a data export function for CSV- and XML-export. It can also be controlled by MC.NET.

The quiet all-rounder
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: An intuitive touch display, the integrated functionality of the MC.net software, the capsule weight measurement system and the patented Oblong Navigator® are only some of the innovative new features. In addition the new MultiCheck 6 provides an unsurpassed low noise level and cleanest operation in its class.

Proven features have been retained: With the integrated turntable technology all types of oblongs and tablets can be tested regardless of their shape. MultiCheck 6 can test up to five tablet parameters - fully automated and 100% compliant with all pharmacopoeias around the world: A true all-rounder.
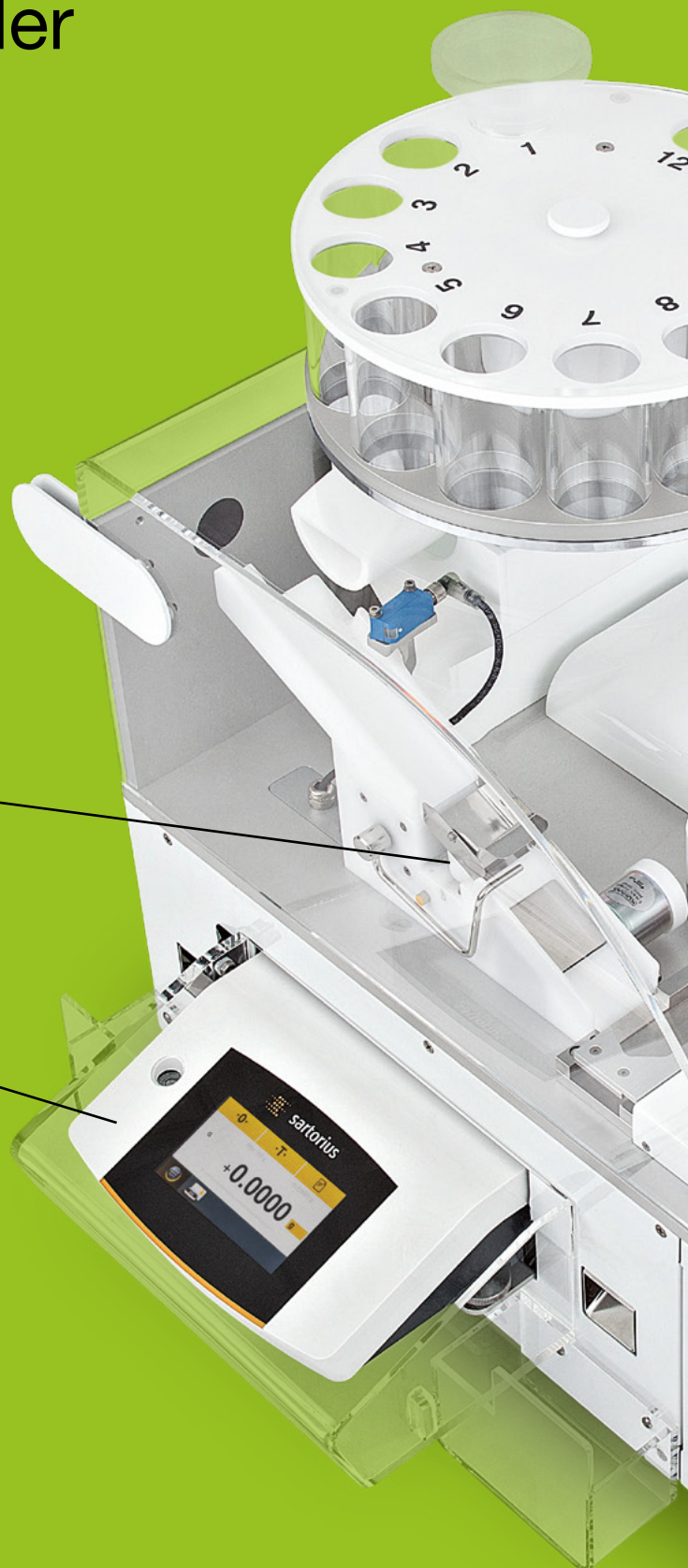
Capsule weight measurement

With its new empty capsule weight measurement system MultiCheck 6 is able to determine capsule weight and automatically deduct the weight of the empty capsule from the weight of filled capsules. Direct ejection immediately after weight measurement speeds up the measuring process.

Integrated balance

The integrated balance enables high-precision weight measurements and the results are displayed either in mg or g.

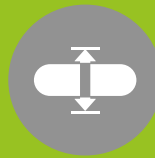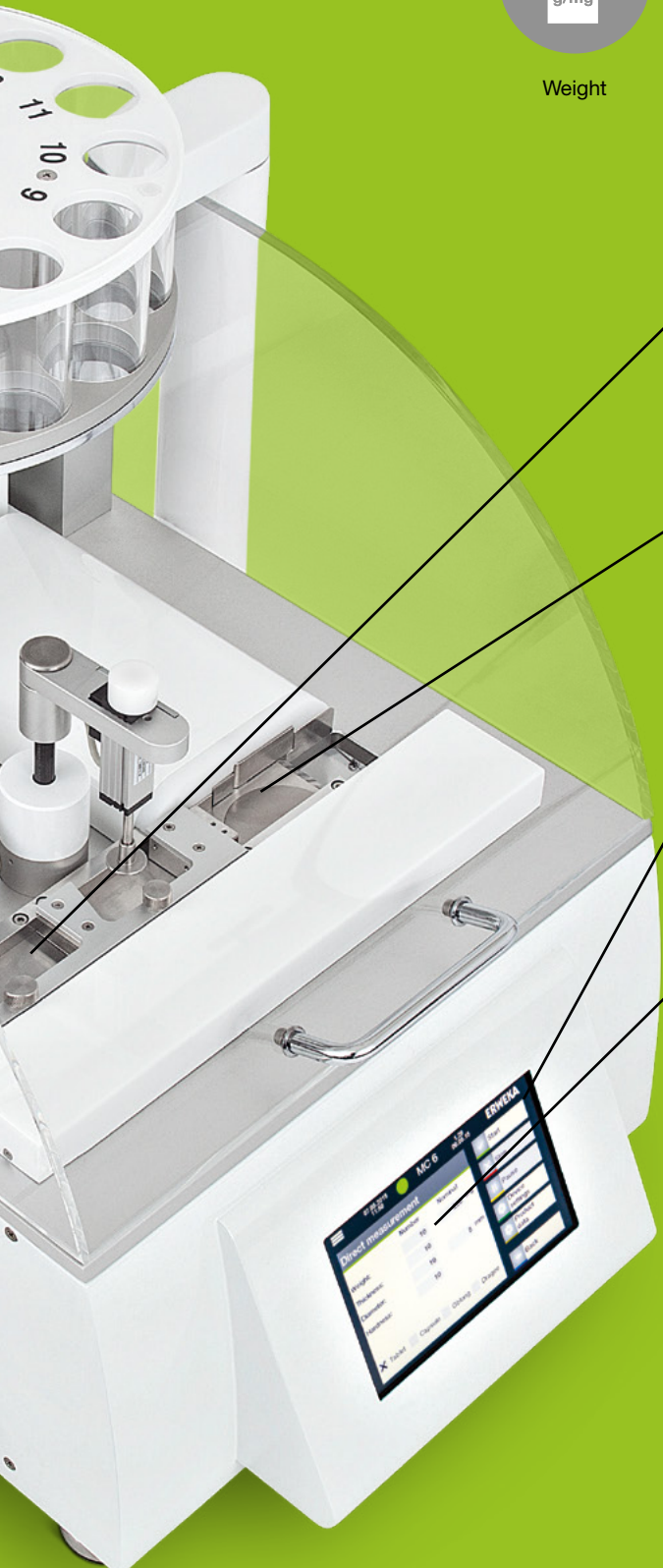With the optional MC.NET software the MultiCheck 6 can be controlled via a PC*.

ERWEKA
MultiCheck 6
The quiet all-rounder

5 Parameters:

Weight	Thickness	Width	Diameter/Length	Hardness

Electrical alignment threshold

The alignment threshold ensures that tablets are correctly positioned and prevents tablets from being transported in an awkward position, for example on-edge.

Oblong Navigator®

This patented turntable technology enables odd-shaped tablets to be aligned correctly and easily checked for weight, thickness, diameter, width and length.

Touchdisplay

An intuitive touch display allows for easy operation of the unit.

Direct measurement

Via the direct measurement menu, tests can be started quickly with results immediately stored.

MultiCheck 6
The quiet all-rounder

ERWEKA

The comfortable software solution for our hardness testers
MC.NET

The ERWEKA MC.NET hardness software takes over full control of selected hardness testers. In addtion to the optional connection to our hardness testers of the series TBH 325 and TBH 425, our fully automatic combination testers EasyCheck and MultiCheck 6 are controlled via a connected PC by the intuitive windows software MC.NET.

The ERWEKA software features a user-friendly menu navigation allowing the comfortable operation of the connected devices.
All data (incl. products, batches, methods) are stored in an extensive master data management system and can be adapted at any time. Besides, the MC.NET offers a clear user management. User accounts can be easily created, processed and specific authorizations can be assigned individually. This way, you make sure that only authorized users have access to the connected devices.

All steps from the device qualification and preparation of test parameters up to the analysis of the test results are controlled by the MC.NET. The 21 CFR Part 11 compliant audit trail generates detailed protocols of all results and corresponding times. After finishing the tests, MC.NET creates comprehensive reports and can export all results in all common formats.
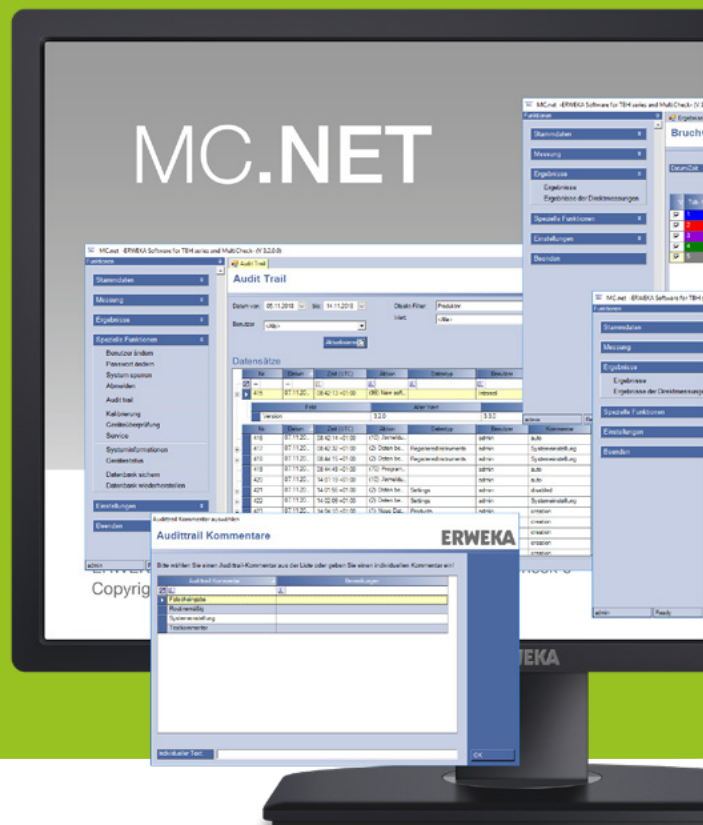
Highlights

100% **100% USP/EP/ JP compliant**

User-friendly menu navigation

Audit Trail

Automatic calibration with the AutoCal 2.0

The ERWEKA AutoCal 2.0 System is a calibration tool for automated calibration of the hardness test station, without the need for weights, an external PC and software.

With the AutoCal 2.0 the calibration of hardness testers has become easier than ever before. The AutoCal 2.0 USB stick is plugged into the USB interface of the device and the connected certified load cell is inserted into the hardness test station. The complete system (adjustment and calibration) is now performed via the keypad and the display of the hardness tester.

The unit will automatically conduct adjustments and calibration can be controlled on linearity by checking of up to three points within the measuring range. In addition, the unit generates a calibration printout outlining individual calibration data and further information (service date and time, serial number).
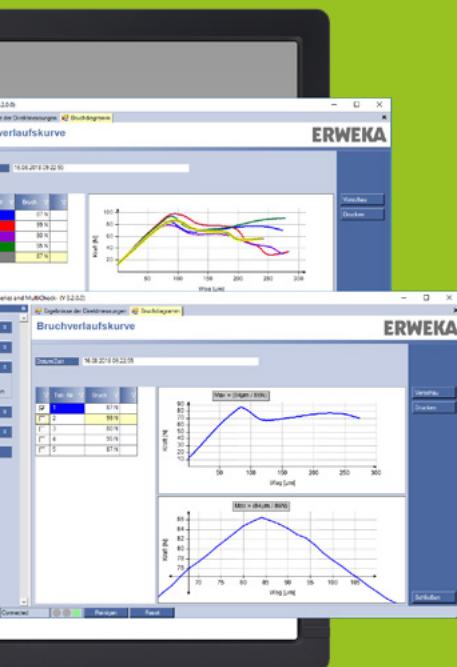
Highlights

100% 100% USP/EP/JP compliant

Comfortable and precise calibration

No need for weights or a PC

Comprehensive calibration printout

Technical specifications of products described are stated without
warranty and subject to change at any time without further notice.
v.1.1.3.22

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