



TABLET HARDNESS TESTER

TBH 425

## TBH 425

Half-automatic measurement  
of up to 10 samples



[www.erweka.com](http://www.erweka.com)



**The ERWEKA TBH 425 is a tablet hardness and combination tester for semi-automatic measurement of up to 10 samples. The samples are inserted into a star-shaped feeder and then automatically transported to the test station. Depending on the device model, automatic measurement can be performed of tablet hardness and (optionally) tablet thickness, diameter, or length (for oblongs) of round or uneven samples.**

An alignment routine and an optional support groove in the hardness testing station help to align irregularly shaped samples during the breaking process. Using the numeric keypad with alphanumeric sub-function, the nominal hardness in combination with three individual plus / minus tolerances (T3 = pass / fail criteria) and other comments for up to 50 different products can be entered, saved and recalled for future tests. Information such as product names and batch numbers can also be easily entered. The stored product data can be transferred to other devices in the TBH 325 / 425 family via SD card or USB stick.

The calibration of the hardness testing station is fully menu-driven and can be carried out using either weight stones or the electronic ERWEKA AutoCal 2.0 system. Using the USB printer interface, a printer can be connected to create a documentation printout. The serial LAN / USB interface enables the connection of a computer with the optional MC.NET software for external control. In combination with this option, the TBH 425 series is 100% 21 CFR 11 compliant.

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**MULTIPLE POWERFUL VERSIONS AVAILABLE**

**HARDNESS & DIAMETER – TBH 425 D**

The ERWEKA TBH 425 D is based on the TBH 425, but in addition offers diameter/length measurement and documentation options of the samples. With this functions it can be ensured that the samples are placed in the correct alignment for the hardness testing process.

**HARDNESS / DIAMETER / THICKNESS – TBH 425 TD**

In addition to the standard TBH 425, the semi-automatic TBH 425 TD offers the automated measurement of the diameter / length and thickness of the sample using a motor-driven, calibratable electronic linear potentiometer.

**HARDNESS / DIAMETER / THICKNESS / WEIGHT – TBH 425 WTD**

The unit can either fulfill a three parameter hard-copy print-out by a connected printer (optional) or can transfer the data to a PC with the optional MC.NET software. The ERWEKA TBH 425 WTD, which is based on the TBH 425 TD, is additionally equipped with an external Sartorius or Mettler analytical balance with windshield (20 mg to 64 g; accuracy  $\pm 0.1$  mg; Sartorius balance with in-built calibration weight) for connection with the unit. Before testing the other parameters, the sample is manually placed onto the balance, the weight is determined, and the results are transferred to the unit's electronics.

Small Device, Big Features

## KEY FEATURES



### Star Feeder Magazine

10-chamber star feeder with brushes for cleaning the transport way



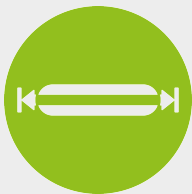
### Weight Measurement

External Sartorius balance, but with integrated data



### Diameter

Up to 28 mm



### Length Measurement Oblongs

Test samples up to 28 mm



### Hardness Testing

Measuring range from 3 to 500 Newton



### LAN / USB Interfaces

LAN / USB interfaces for connecting to printers or to the network for external control and storage of results using the optional MC.NET software

AUTOMATIC CALIBRATION TOOL

## AUTOCAL 2.0

**The ERWEKA AutoCal 2.0 system is a calibration tool for the automated calibration of the hardness tester station - without weights, external PC and software.**

Calibration has never been so easy: The AutoCal 2.0 USB stick is plugged into the USB port of the TBH x25 and the connected certified load cell is inserted into the hardness testing station.

The entire system (adjustment and calibration) is now carried out via the hardness tester's keypad and display. The device performs the adjustment automatically and the calibration can be checked for linearity by checking up to three points within the measuring range. In addition, a documentation report can be created via the standard printer interface.



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**TECHNICAL DATA**

<b>Weight</b>	15 kg
<b>Dimensions (H x W x D)</b>	240 x 350 x 375 mm
<b>Voltage</b>	100 - 240 V / 50 - 60 Hz
<b>Interfaces</b>	SD card, Ethernet (LAN), RS 232 C (option), 1x USB-A and 1x USB-B interface for printer / Autocal 2.0
<b>Hardness range</b>	3 - 500 N (extended (option): 3 - 1000 N $\pm$ 1 N)
<b>Diameter/length</b>	2 - 28 mm ( $\pm$ 0.05 mm)
<b>Thickness (option)</b>	2.0 - 10 mm ( $\pm$ 0.05 mm)
<b>Weight (option)</b>	20.0 mg - 64 g** ( $\pm$ 0.1 mg)
<b>Constant speed</b>	0.1 - 3 mm/sec.
<b>Constant force</b>	10 - 200 N/sec.
<b>Calibration</b>	Weights (statistic calibration) Optional: AutoCal 2.0 (dynamic calibration)