

# Physical Tablet Testers



## Manual and Automated Systems

# PHYSICAL TABLET TESTERS

## TELEDYNE HANSON PLUS KRAEMER ELEKTRONIK

Tablet breaking force (commonly called hardness) is a crucial characteristic in the manufacturing of solid dose formulations, affecting bonding and integrity of the final form, and its ability to withstand the stresses of production, packaging, and transportation. An incorrect degree of hardness further affects the dissolution properties of the tablet, potentially causing it to release active pharmaceutical ingredients too quickly or too slowly. Accurate evaluation of hardness is essential to tablet product development, manufacturing, and quality control.

As part of Hanson’s dedication to precision release-rate testing instruments and related analytical services, we are proud to partner with Kraemer Elektronik to offer their line of manual and automated tablet testers. Kraemer is known for the ability to combine the testing of multiple parameters into one small footprint with high precision, ease of use, and degrees of automation suited to small, medium, and large research lab or production facilities. Kraemer’s starwheel

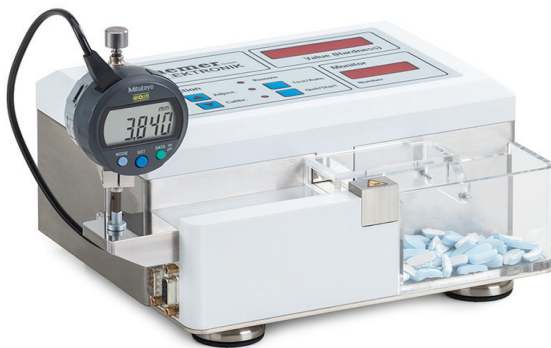
conveyor in the P-series tester, when integrated with the patented Vibralign system, delivers fully automated testing of length, width, thickness, weight, and breaking force in a compact footprint measuring only 320 mm x 320 mm.



*Automatic tablet positioning with integrated Vibralign*

## T-SERIES (HC6.2) MANUAL TESTER

T-Series (HC6.2) testers provide accurate measurement of tablet length, diameter and breaking force (hardness) in a compact space with an easy-to-use interface able to operate with or without gloves. EXT models allow an external Mitutoyo thickness gage. Up to 99 products



are managed through an external USB device or optional integrated memory. Test results can be sent to an external printer connected to a USB port.

- User-friendly 7-segment display with buttons
- Integrated LED status light
- EXT+ model accommodates external scale
- Units of measure: N/Kp/SC
- Range: 4 - 400 N accurate to  $\pm 1$  N
- Quick and simple calibration with reporting



T-Series Models	Hardness/Force	Diameter/Length	Thickness	Weight (external scale*)
HC6.2	•	•		
HC6.2 EXT	•	•	•	
HC6.2 EXT+	•	•	•	•

\* Ability to connect an external scale supplied separately

# MANUAL AND AUTOMATED SYSTEMS

## H-SERIES MANUAL TESTER WITH TOUCH SCREEN

H-Series testers measure length, hardness, and up to three additional parameters, depending on the model. The intuitive touch screen makes it very easy to select



products and view test results. Rounded corners and smooth surfaces provide easy cleanup. Calibration interval is automatically monitored. Higher models allow connection of external scale or thickness gage.

- Internal management of up to 10,000 products
- User access control
- Constant force and constant speed
- Breaking force: 4 - 400 N accurate to  $\pm 1$  N
- Sensor supported menu navigation
- Graph view during test
- LIMS interface (XML file)
- Validation documents IQ/OQ

H-Series Models	Hardness/Force	Diameter/Length	Width	Thickness	Weight (external scale*)	Thickness (external gauge*)
H2	•	•				
H3	•	•	•			
H4	•	•	•	•		
H5	•	•	•	•	•	
H5+	•	•	•	•	•	•

\* Indicates the ability to connect an external device supplied separately

## P-SERIES AUTOMATED TESTER

The P-Series models with Vibralign (P3+, P4+, and P5) provide the ability to measure 3, 4, or 5 parameters for up to 20 tablets automatically. The 7-inch touch screen



makes test setup fast and easy. Lab productivity is further enhanced by full network integration, no limit on user accounts, and the ability to configure user groups with different levels of access. Integrated 360 degree LED status display is visible from a distance.

- Manage up to 10,000 products internally
- Constant force and constant speed; breaking force 4 - 400 N accurate to  $\pm 1$  N
- Sensor-supported menu navigation
- Graph view during test; automatic PDF export to USB stick; LIMS interface (XML file)
- Smooth surfaces easy to clean
- Validation documents IQ/OQ

P-Series Models	Hardness/Force	Diameter/Length	Width	Thickness	Weight
P2				•	•
P3	•	•		•	
P3+*	•	•		•	
P4	•	•		•	•
P4+*	•	•		•	•
P5*	•	•	•	•	•

\*P3+, P4+, and P5 models include Vibralign automated tablet positioning

# PHYSICAL TABLET TESTERS



## ORDERING INFORMATION

For further information, please contact your local Teledyne Hanson Research representative or email us at: [hansonsales@teledyne.com](mailto:hansonsales@teledyne.com)

### TABLET HARDNESS/FORCE TESTERS (H, P SERIES)

- 45-590-711** H2 Tester: Force, Diameter/Length
- 45-590-712** H3 Tester: Force, Diameter/Length, Width
- 45-590-713** H4 Tester: Force, Diameter/Length, Width, Thickness
- 45-590-714** H5 Tester: Force, Dia/Len, Width, Thk, Ext Weight
- 45-590-715** H5+ Tester: Force, Dia/Len, Width, Thk, Ext Wt/Thk
- 45-590-701** P2 Tester: Thickness, Weight
- 45-590-702** P3 Tester: Force, Dia/Len, Thickness
- 45-590-703** P3+ Tester: Force, Dia/Len, Thickness, Vibralign
- 45-590-704** P4 Tester: Force, Dia/Len, Thickness, Weight
- 45-590-705** P4+ Tester: Force, Dia/Len, Thk, Weight, Vibralign
- 45-590-706** P5 Tester: Force, Dia/Len, Width, Thk, Wt, Vibralign

### T-SERIES (HC6.2) HARDNESS/FORCE TESTERS

- 45-590-721** HC6.2 Tester: Force, Diameter/Length
- 45-590-723** HC6.2 EXT Tester: Force, Dia/Len, Thickness
- 45-590-722** HC6.2 EXT+ Tester: Force, Dia/Len, Thk, Ext Scale

### POWER CORDS

- 91-211-037** Power cord (USA)
- 91-211-053** Power cord (China)
- 91-211-061** Power cord (India)

### ACCESSORIES

- 45-590-732** Cover with Hood (P-Series)
- 45-590-733** Dynamic Calibration Package (T, H, P-Series)
- 45-590-752** Calibration Kit (T, H, P-Series)
- 45-590-736** Mitutoyo Digimatic Micrometer(T, H Series)
- 45-590-737** Analytical Balance, Sartorius Entris (T, H Series)
- 45-590-744** Analytical Balance, Mettler ME204 (T, H Series)
- 45-590-753** External Thickness Gauge with Base Plate (H Series)

### SOFTWARE LICENSES

- 45-590-738** License: Unlock Thickness (T, H Series)
- 45-590-739** License: Unlock Balance (T, H Series)
- 45-590-740** HC6.2 License: Softgel Capsules (T Series)
- 45-590-749** License: LIMS Export (H, P Series)
- 45-590-750** License: CSV Export (H, P Series)

### QUALIFICATION DOCUMENTS

- 45-590-745** P-Series IQ/OQ Documents, English
- 45-590-746** H-Series IQ/OQ Documents, English
- 45-590-747** T-Series IQ/OQ Documents, English