

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 though 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 ± 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 ± 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 ± 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

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