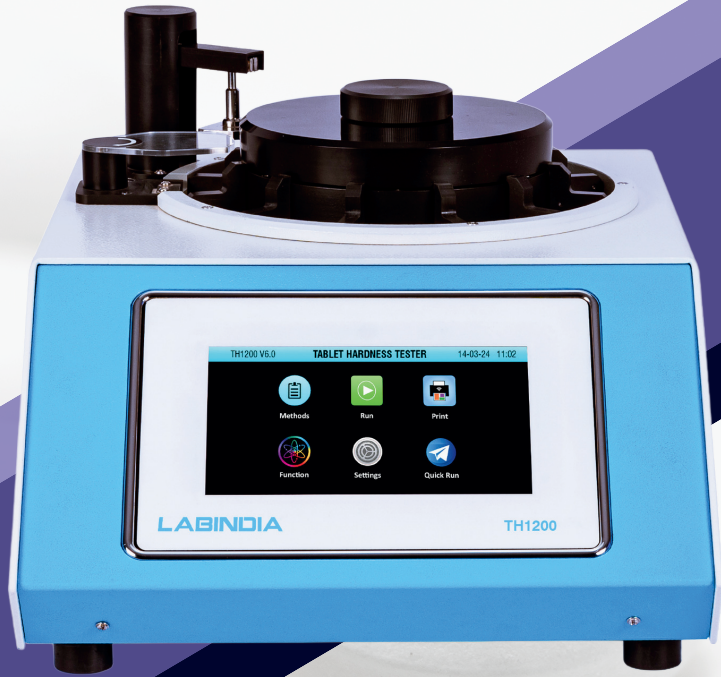


HARDNESS TESTER

TH1200



Introducing Labindia's latest innovation, the Tablet Hardness Tester TH1200. Designed for efficiency and accuracy, this advanced tester is engineered to measure up to 5 parameters with precision. Compact and compliant with all major pharmacopeias, it sets a new standard in tablet testing. With an integrated load cell, it automatically weighs samples, ensuring consistent results. The intuitive touch display allows for easy storage of up to 100 products/methods, streamlining testing procedures and enhancing productivity.

FEATURES



7" TOUCH SCREEN

7 inch high quality Capacitive Color Touch Screen Display



IN-BUILT COMPUTER

100 Test Methods with date and time



BASIC CFR COMPLIANT

4 Level Password is incorporated - Admin, Lab Manager, Supervisor, and User



HARDWARE VALIDATION

Validation of hardware with real time status information

KEY FEATURES:

- Advance Micro-controller based user-friendly state-of-the-art product design with **7" capacitive touch screen colour display**. User interactive software in dialogue mode for ease of operation with protection against invalid entries.
- **12 Position Carousel** for Automatic measurement of tablet parameters - **Thickness, Length/Diameter, Weight, Width & Hardness**. The built in Sweeping blades cleans the tablet path for removal of broken pieces, debris & dust.
- Non-Volatile memory storage of 100 methods with parameters with Alphanumeric entries of Sample Name and Identification Number for authentication.
- Automatic run can be performed continuously up to 1-100 tablets. Run can be restarted on power failure.
- Linear Displacement 0.4, 0.8, 1.2, 1.6, 2.0, 2.4, 2.8, 3.2 mm/sec with fast advance and return movement of breaking arm saves runtime.
- Daily Auto Incremented Run Number and Factory entered Customer name with Instrument Serial Number on report system foolproof and GLP compliant.
- **Two Tier - a) ADMIN and b) USER password protection** for method editing and Validation. 50 Users can be set with Name and password.
- Built-in Real Time Clock (RTC) for date and time display and on printout.
- **Result resolution - 0.1/IN, 0.01mm, 0.01cm, 0.001inch as per unit selected.**
- Process Stage and Compression Press no. entry and Percentage Limit for detected values of Hardness, Length & Thickness with Star mark for out of limit values.
- **Calibration & verification protocol for Hardness:**
 - 3 point calibration & verification with standard weights.
- **Calibration & verification protocol for Length:**
 - single point Calibration & 3 point verification with standard length gauges.
- **Calibration & verification protocol for Thickness:**
 - 3 point calibration & verification with standard thickness gauges.
- Quick RUN for Thickness, Length & Hardness or all parameter measurement in sequence up to 25 sample tablets with GLP information.
- Error indication on display helps user to trace the problem.
- Printer Compatibility for Deskjet, Inkjet & Dot-matrix printer.
- PC Based Data downloading facility using EDC 21 software
- Customizable Report File
- Preview Result data before printing
- Auto Resume facility to continue the run in case power failure
- Data backup to SD card & restore facility available
- User can easily adjust brightness of screen



REPORTS:

- Selectable Report Format, complying with GLP requirements:
 - Report giving Run No., Set parameters and Actual parameters during the test process.
 - Report of program parameters for 100 methods.
 - Calibration report for Thickness, Diameter / Length, Hardness and Width.
- Reports can be obtained even after resetting / power off / power failure conditions.



TYPICAL SPECIFICATIONS

PARAMETERS

- Control: Micro-controller based (Advanced microprocessor)
- Display: 7" inch capacitive touch screen color display
- **Test Parameters: No of Tablets = 1 - 100**

1.Thickness:

- Measuring Sensor Linear Transducer
- Measuring Range 0.1mm to 15.0mm.
- Measuring Unit mm or inch.
- Measuring Accuracy better than $\pm 0.05\text{mm}$

2.Width (in separate mode):

- Measuring Sensor Stepper controlled Load Touch sensed
- Measuring Range 0.1mm to 15.0mm
- Measuring Unit mm or inch
- Measuring Accuracy better than $\pm 0.05\text{mm}$

3.Diameter/Length:

- Measuring Sensor Stepper controlled Load Touch sensed
- Measuring Range Diameter 0.5mm to 25.0mm
Length 0.5mm to 32.0mm
- Measuring Unit mm or inch.
- Measuring Accuracy better than $\pm 0.05\text{mm}$.

4.Hardness: Speed Control by Stepper motor

- Linear Displacement 0.4,0.8,1.2,1.6, 2.0, 2.4, 2.8, 3.2 mm/sec
with fast advance and return of breaking arm.
- Measuring Sensor Load Cell - Strain gauge
- Measuring Range 2N to 500 N (600N - Optional)
- Measuring Unit - N (Newton's) / Kp (Kilo Ponds)
/ kgf Sc (Strong Cobb) / lbs / Pound.
- Measuring Accuracy - $\pm 1\text{N}$

5.Weight: Manual Entry by User (for reporting purpose)

Automatic Balance Interface: Sartorius / Mettler when Automatic Wt. Transfer option is selected.

Number of Method: 100 method with Non-Volatile memory .

Report Storage: Practically unlimited Test Reports with Date and time stamp

Report Format:

- GLP & Pharmacopoeia compliant report with Statistics (Avg, Min, Max and RSD)
- Program parameter Report.
- Calibration Reports

Output:

- Printer connectivity : Centronics parallel port for Dot matrix / Desk jet Printer.
- Serial Interface : RS232 C-1 for Balance connectivity (Sartorius/Mettler) RS232 C-2 for PC Connectivity for Data Download.

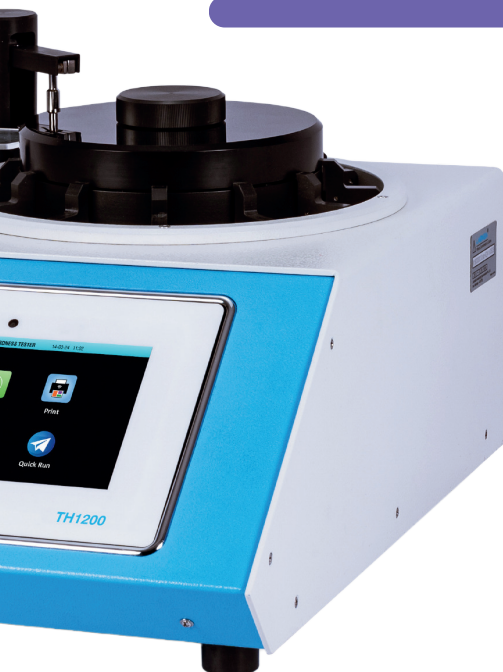
Instrument Weight: 20 kgs.

Dimensions: 345W x 270H x 425D mm.

Power: 110 / 230Vac, $\pm 10\%$, 60 / 50 Hz, 50W. option available.

Environmental Operating Conditions:

- Operation: Indoor.
- Temperature: Ambient to 45°C.
- Humidity: 5 to 90% non-condensing.
Altitude: upto 2000



5 PARAMETER



WEIGHT



THICKNESS



LENGTH



HARDNESS



WIDTH



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