

# HARDNESS TESTERS

## MODELS HT-300S/HT-500S

*Most reliable and accurate tablet hardness tester on the market today*



### SIMPLE CALIBRATION TO NIST/AUTOMATIC VALIDATION

HT-300S/HT-500S can be calibrated wherever it is being used to NIST (National Institute Standards and Testing) Specifications, rather than having to be returned to the factory. A printout is automatically supplied as validation.

### LED DISPLAY

The LED readout displays each hardness test result in large, easy to read numerals. In addition, because the control panel and LED display are a flat surface, there are no corners or crevices to trap product dust or debris, as is the case with buttons or switches.

The HT-300S or HT-500S is recommended for in-line production and quality control to measure the comprehensive strength of tablets and to ensure that hardness falls within specifications. In after production, either unit is also ideal for quality assurance checks.

The principle of strain gauge linear force is used to ascertain degree of hardness. Both round and irregular shaped tablets can be accommodated. These hardness testers are also simple to calibrate in-house, with validation — and the operator can tell when the unit is not set up to operate correctly. Readout is in any one of the three standard units of measurement (Kp, Sc, N) commonly used by the pharmaceutical industry.

### INTEGRATED PRINTER

The automatic printer represents a simple way of producing a permanent test printout, which can be attached to each batch record.

### PRINTOUT TAPE INCLUDES ALL DATA AUTOMATICALLY

Total Number of tablets tested	NR	5
Average value	XM	8.7 KP
Relative standard deviation	SREL	16.6 %
Standard deviation	SD	1.4 KP
Low value	XMIN	7.4 KP
High value	XMAX	10.8 KP
Omit	5	7.4 KP
Separate test results	5 =	1.2 KP =
Incorrect operation	5	1.2 KP
No tablet tested	4	7.5 KP
Version identification	3	10.8 KP
	2	8.4 KP
	1	9.6 KP
	000000000000000000000000	
	STOP 234 D	
	NO SAMPLE	
	000000000000000000000000	
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	PTB 301 92.12/6	

# HARDNESS TESTERS

## MODELS HT-300S/HT-500S

*Offers more data, higher accuracy, easier operations and no downtime for standard procedures!*

### PERFORMANCE FEATURES

- Strain gauge to measure linear force (versus counterbalancing or pneumatic and type tester)
- Accuracy of  $\pm 1\%$  over entire readout measuring range
- Prints out in Strong Cobb (SC), Kilopond (KP) or Newton (N) units
- Changeover from one unit of measurement to another by keypad
- Touch activated control panel
- Automatic "test" circuit to verify accuracy
- Printout tape shows when unit is not set up to operate correctly
- Fully adjustable jaw travel
- Automatic cycling and adjustable time lapse between cycles to match operator speed
- Very fast measurement speed

### DESIGN FEATURES

- Incorporates RS232 interface output for computer hookup with 25 pin connector
- Leveling not required
- "On the spot" calibration in minutes—no skilled technician required
- Immediate printout validation
- LED display has diode validation
- Test range covers the complete tablet spectrum
- Totally self-contained incorporating printer and computer interface
- Sealed for internal integrity
- Lightweight, portable, easy to relocate and store
- Repositioning does not affect calibrating, accuracy or setup
- Test irregular shaped tablets on major or minor axis
- On or off printer operation

### TECHNICAL SUPPORT

A Key International technical engineering staff is available for on-site servicing when required. Unit can also be returned to Cranbury, New Jersey factory for prompt service.



### SPECIFICATIONS

PERFORMANCE		PHYSICAL	
Tablet Diameter	4-40mm	Width	19.8"
Printer Speed	48lpm	Depth	9.75"
Force Increase	2Kp/sec	Height	7.8"
Measuring Range	HT300: 0.5-30Kp HT500: 0.8-50kp (or equivalent Sc or N)	Weight	37lbs.
Resolution	0.1Kp	Electrical	
Accuracy	$\pm 1\%$ FS	Power Requirements	110-220V/ single phase / 60 cycle

### OPTIONS

- Calibration kit includes weights to calibrate and validate the operation
- "Break" point fixture for testing glass ampoules
- "Variflex" jaws for irregular shaped tablets (insures proper test position)

### LOOK TO KEY INTERNATIONAL FOR:

**PROCESSING EQUIPMENT:** Capsule Checkweighers - Capsule Fillers - Capsule Polishers - High Shear Mixers & Granulators - Homogenizers - Metal Detectors - Rotary Tablet Presses - Tablet & Capsule Inspection - Tablet Coaters - Tablet Dedusters - Tablet Friability Testers - Tablet Hardness Testers - CORA Butterfly Valves

**PACKAGING EQUIPMENT:** Blister Packaging - Bottle Cappers - Bottle Fillers - Bottle Inserters - Bottle Unscramblers - Cartoners - Form/Fill/Seal Pouch Fillers - Single Dose Pre-formed Plastic Shells - Stick Pack Packaging - Suppository Systems - Tablet & Capsule Counters - Tube Fillers - Key-Lon & Key-Lube

8/2015