

Precise measuring of hardness, diameter, thickness and weight Reliable testing of virtually all tablet shapes Proven Dr. Schleuniger® hardness measuring Professional reporting including statistics









### **Swiss Quality**

High quality components paired with Swiss precision engineering provide for a long product life and minimize costly machine downtime. In order to ensure maximum reliability of your 8M, all instruments are tested according to strict internal quality standards before they leave our factory.

### Hardness Testing

With more than 35 years of experience and more than 15'000 testers in the market, Dr. Schleuniger® hardness measuring technology is a safe investment. Like all our hardness testers, the 8M offers consistently accurate test results and fully complies with current USP (chapter 1217, tablet breaking force) and EP (2.9.8, resistance to crushing of tablets) requirements.

## 8M - Proven Reliability

The 8M tablet hardness tester reliably measures hardness and diameter of virtually all tablet shapes. With a proven track record of thousands of machines in the field, the 8M is a favorite at leading pharmaceutical and nutraceutical companies all over the world.

- Accurate and highly reliable test results
- Test menus, test parameters and results show on an LCD display
- Automatic or manual mode
- Up to 100 measurements per test (for each parameter)
- Program up to 19 products, incl. nominal value and T1/T2/PL limits for each parameter
- Accumulate hardness, diameter, thickness and weight measurements in one single report
- Automatic printing of reports including statistics
- PC software for 21 CFR, Part 11 compliant data management
- Wide range of accessories and special jaws
- Ergonomically optimized FastTest<sup>TM</sup> configuration for larger sample sizes



# Flexibility and Precision

Tablets are placed in the machine individually and by hand. Practically any imaginable design, including oblong, diamond, hexagon and other special shapes can be reliably positioned to measure hardness, diameter, thickness and weight. Interchangeable jaws allow testing of even the most unconventional shaped test objects.

Standard jaw

Ideal for testing most tablet shapes



Special jaw, Type II 3-point-measurement for



**Grooved tongue** 

To assist with tablet orientation of convex shaped tablets



Special jaw, Type III To test the breaking force of large and small ampoules



Special jaw, Type I

Specifically designed to test elliptically shaped tablets



Special jaw, Type IV Flexible adapter for large test objects (32 – 65mm diameter)



## Fast, Faster, FastTest™

The 8M is a manual multi-purpose instrument that optionally combines additional measurements from an external balance and thickness gauge in a single report. In FastTest™ configuration, operators can test tablets as quickly as with any automatic instrument.

Testing larger sample sizes can be time-consuming and requires strict sequential testing by the user. In FastTest™ configuration, the operator transfers tablets after weighing to a carousel mounted on top of the 8M. Once weight measurements have been acquired for a sequence of tablets, thickness is measured using the integrated precision gauge. With one hand turning the carousel and the other controlling the thickness

gauge, accurate measurements for the entire sequence are taken in very short time without compromising the order of test samples. Diameter and hardness testing is executed last by placing single tablets inside the test area. In automatic mode, individual tests are started at programmable intervals without requiring the operator to initiate testing for each tablet.



→ 8M with external thickness gauge and balance



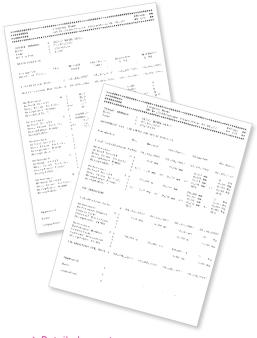
→ 8M in «FastTest™» configuration with integrated carousel and thickness gauge

## Professional Reporting

Upon completion of a test run, a report is automatically printed. In addition to individual measurements and statistical analysis, the report shows all product and test parameters including the last calibration date of the machine.

### Paperless Reporting with PC software

The 8M can be operated using TabStat<sup>™</sup> Light PC software for 21 CFR, Part 11 compliant electronic data acquisition and reporting. Data export as a PDF file or in Excel® compatible format is possible anytime.



→ Detailed reports

### **Technical Specifications**

#### 8M, Tablet hardness tester

| Weight                          | Measuring range            | 0.1 mg –100 g   |  |  |
|---------------------------------|----------------------------|---|--|--|
|                                 | Resolution                 | 0.1 mg  |  |  |
|                                 | Units of measure           | mg/g  |  |  |
|                                 | Type of external balance   | Mettler Toledo, Sartorius   |  |  |
| Thickness                       | Measuring range            | 0 – 13 mm (0 – 0.51 inch)   |  |  |
|                                 | Resolution                 | 0.01 mm   |  |  |
|                                 | Units of measure           | mm / inch   |  |  |
| Diameter / Length               | Measuring range            | 0-35 mm (0-1.37 inch); optional 65 mm (2.55 inch)   |  |  |
|                                 | Resolution                 | 0.01 mm (0.00039 inch)  |  |  |
|                                 | Units of measure           | mm / inch   |  |  |
| Hardness                        | Measuring range            | Standard: up to 400 N<br>Optional: 50 N / 500 N / 800 N   |  |  |
|                                 | Accuracy                   | +/- 1 N   |  |  |
|                                 | Units of measure           | N, Sc, Kp, programmable user-defined factor (based on N)  |  |  |
| Hardness measuring<br>principle | Constant speed             | 0.1 – 5 mm/sec, programmable  |  |  |
|                                 | Constant force (load rate) | 20 – 200 N/sec, programmable  |  |  |
|                                 | Constant power increase    | Standard "6D" mode  |  |  |
| User languages                  |                            | English, Spanish, German, French, Italian   |  |  |
| Interfaces                      |                            | RS232   |  |  |
| Power supply                    |                            | 90 – 264 VAC, 47–63 Hz  |  |  |
| CE Conformity                   |                            | All 8M models fully comply with all CE and EMC equipment guidelines relative to mechanical and electrical safety and electromagnetic compatibility. |  |  |
|                                 |                            |   |  |  |

|                  |                           | DH                          | TDH                         | WDH                         | WTDH                        | FastTest™                     |
|------------------|---------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------------------------------|
| Configuration    | Hardness                  | •                           | •                           | •                           | •                           | •                             |
|                  | Diameter / Length         | •                           | •                           | •                           | •                           | •                             |
|                  | Thickness (internal)      | _                           | •                           | _                           | •                           | •                             |
|                  | Thickness (external)      | _                           | •                           | _                           | •                           | •                             |
|                  | Weight (external)         | _                           | _                           | •                           | •                           | •                             |
|                  | FastTest™ configuration   | _                           | 0                           | _                           | 0                           | •                             |
| Weight           | (without packaging)       | approx. 12 kg<br>(26.5 lbs) | approx. 12.5 kg<br>(27.5 lbs) |
| Dimensions       | Width                     | 420 mm<br>(16.5 inch)       | 420 mm<br>(16.5 inch)       | 420 mm<br>(16.5 inch)       | 420 mm<br>(16.5 inch)       | 448 mm<br>(17.6 inch)         |
|                  | -<br>Height               | 185 mm<br>(7.2 inch)        | 185 mm<br>(7.2 inch)        | 185 mm<br>(7.2 inch)        | 185 mm<br>(7.2 inch)        | 300 mm<br>(11.8 inch)         |
|                  | Depth                     | 155 mm<br>(6.2 inch)        | 155 mm<br>(6.2 inch)        | 155 mm<br>(6.2 inch)        | 155 mm<br>(6.2 inch)        | 195 mm<br>(7.6 inch)          |
| Software         | TabStat™ Light            | 0                           | 0                           | 0                           | 0                           | 0                             |
| Options          | Function checking devices | 0                           | 0                           | 0                           | 0                           | 0                             |
|                  | Calibration tools         | 0                           | 0                           | 0                           | 0                           | 0                             |
|                  | Custom tongues            | 0                           | 0                           | 0                           | 0                           | 0                             |
|                  | Special jaws              | 0                           | 0                           | 0                           | 0                           | 0                             |
|                  | Keyboard                  | 0                           | 0                           | 0                           | 0                           | 0                             |
| ainaludad Cantie | and not available         |                             |                             |                             |                             |                               |

 $Technical\ specifications\ are\ subject\ to\ change\ without\ prior\ notice.\ Products\ illustrated\ in\ this\ brochure\ may\ include\ options\ or\ modifications\ not\ fitted\ as\ standard.\ No\ liability\ for\ errors\ and\ omissions.$ 



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