## SMT 1

Robust and user-friendly manual tablet hardness tester with up to 5 parameters. From simple "hardness only" tests to complete measurement series in IPC, QC and R&D.



### Manual Tablet Hardness Tester



# SMT 1 — Compact. Robust. Easy to use.



Configurable test reports and various printer interfaces including export of test results to USB flash drive control with user administration

SMT 1

5 parameters

Simple operation

Robust and precise up to 800 N

Dr. Schleuniger® technology

Advanced reporting and test protocols

Recording of weight measurements from external analytical balance



movements for maximum precision

Thickness / Width / Length (Diameter) / Hardness station with optimized jaw

SmartProtect™

Exchangeable tongues for easy tablet orientation

Debris collection bin

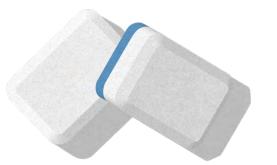
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## All sizes, shapes, and materials.









#### Your application?

The SMT 1 is designed for testing almost anything. From pharmaceutical dosage forms to catalysts, pellets, extruded materials, and more. Robust Dr. Schleuniger® technology paired with powerful state-of-the-art electronics provide for highly accurate and repeatable hardness results up to 800 N. Low breaking forces (<10 N) associated with small and brittle test samples are precisely measured using a special "sensitive mode".

#### 100% flexible.

The highly accessible test area accepts all types of shapes, sizes, and materials. Optimized jaw movements provide short cycle times, while quick-change tongues allow for simple tablet handling by the operator. Clip-on jaws further extend the SMT 1 testing capabilities for 3-point bending strength tests or other testing methods.



Quick-change tongue with groove for easy alignment of convex shapes



Quick-change tongue with flat surface



Clip-on jaws for 3-point bending strength test





#### EasyTouch™

The SMT 1 is all about easy operation. Operators simply select a product and press "START" – ensuring that tests are always performed according to predefined methods. Additionally, simple quick-tests can be performed anytime. Different access levels make sure that settings or product specifications can only be modified by authorized personnel.



#### Proven Reliability.

Based on proven Dr. Schleuniger® measuring technology, the SMT 1 is a true workhorse for your IPC and QC labs. Robust design paired with user-friendly operation and an extremely small footprint to occupy only a minimum of valuable bench space. Excellent accessibility provides for easy cleaning and ensures 100% visibility of the testing process at all times.



#### Reporting.

A test protocol is automatically generated and printed at the end of each test. Results for all tested parameters including statistical analysis are presented in a clearly structured format. If pre-programmed products have been used, the printout includes all specifications and indicates whether limit violations (T1/T2/PL) have occurred. Report templates can be easily configured to individual requirements – from comprehensive test protocols to very basic reporting needs.

#### **SMT 1 Technical Specifications**

Weight (Mass)	External balance	Mettler Toledo*/ Sartorius*
	Units of measure	mg/g
	Resolution	1.0 mg / 0.1 mg / 0.01 mg
Thickness	Units of measure	mm / inch
	Resolution	0.01 mm
	Measuring range	2 – 35 mm
	Repeatability	±0.03 mm
Width / Length (Diameter)	Units of measure	mm / inch
	Resolution	0.01 mm
	Measuring range	2 – 35 mm
	Repeatability	±0.03 mm
Hardness	Units of measure	N / Kp / Sc / UDF
	Measuring range	2-800 N
	Repeatability	±1 N
	Dr. Schleuniger* S-beam load cell	99.98 % linearity, over entire measuring range
	Calibration (Adjustment / Verification)	with reference weights
Measuring principle	Constant speed	0.05 – 5 mm/s, programmable
	Linear force increase	10 – 200 N/s, programmable
Printer	PostScript® 3 (PS3)	Ethernet, USB
		RS-232 serial
	Epson* 40col.	NO-202 Serial
nterfaces	Epson* 40col.	Ethernet, 2×USB, 3×RS-232 serial
Interfaces Power supply	Epson* 40col.	
Power supply		Ethernet, 2×USB, 3×RS-232 serial  100 - 240 V / 50 - 60 Hz  equipment guidelines relative to mechanical and
Power supply	The SMT 1 fully complies with all CE and EMC	Ethernet, 2×USB, 3×RS-232 serial  100 - 240 V / 50 - 60 Hz  equipment guidelines relative to mechanical and
Power supply CE Conformity	The SMT 1 fully complies with all CE and EMC	Ethernet, 2×USB, 3×RS-232 serial  100 - 240 V / 50 - 60 Hz equipment guidelines relative to mechanical and bility.
Power supply CE Conformity	The SMT 1 fully complies with all CE and EMC electrical safety and electromagnetic compati	Ethernet, 2 × USB, 3 × RS-232 serial  100 – 240 V / 50 – 60 Hz  equipment guidelines relative to mechanical and bility.  Standard
Power supply CE Conformity	The SMT 1 fully complies with all CE and EMC electrical safety and electromagnetic compati	Ethernet, 2 × USB, 3 × RS-232 serial  100 – 240 V / 50 – 60 Hz  equipment guidelines relative to mechanical and bility.  Standard  •
Power supply CE Conformity	The SMT 1 fully complies with all CE and EMC electrical safety and electromagnetic compation with the safety and electromagnetic compation with all CE and EMC electromagnetic compation with all CE and EMC electrical safety and electromagnetic compation with all CE and EMC electrical safety and electromagnetic compation with all CE and EMC electrical safety and electromagnetic compation with all CE and EMC electrical safety and electromagnetic compation with all CE and EMC electrical safety and electromagnetic compation with all CE and EMC electrical safety and electromagnetic compation with all CE and EMC electrical safety and electromagnetic compation with all CE and EMC electromagnetic compation with	Ethernet, 2×USB, 3×RS-232 serial  100 – 240 V / 50 – 60 Hz  equipment guidelines relative to mechanical and bility.  Standard  •
Power supply CE Conformity	The SMT1 fully complies with all CE and EMC electrical safety and electromagnetic compation with the compation of the compati	Ethernet, 2 × USB, 3 × RS-232 serial  100 – 240 V / 50 – 60 Hz  equipment guidelines relative to mechanical and bility.  Standard  •  •  •
Power supply CE Conformity  Configuration	The SMT1 fully complies with all CE and EMC electrical safety and electromagnetic compation.  Weight (Mass), with external balance.  Thickness.  Width  Length (Diameter)	Ethernet, 2×USB, 3×RS-232 serial  100 – 240 V / 50 – 60 Hz  equipment guidelines relative to mechanical and bility.  Standard  •  •  •  •
Power supply CE Conformity  Configuration	The SMT 1 fully complies with all CE and EMC electrical safety and electromagnetic compation with the compation of the compat	Ethernet, 2 × USB, 3 × RS-232 serial  100 – 240 V / 50 – 60 Hz  equipment guidelines relative to mechanical and bility.  Standard  •  •  •  •  •
Power supply CE Conformity  Configuration	The SMT 1 fully complies with all CE and EMC electrical safety and electromagnetic compation with electromagnetic compation with the safety and electromagnetic compation with the safety and electromagnetic compation with external balance.  Thickness Width Length (Diameter) Hardness Program capacity / Sample size	Ethernet, 2 × USB, 3 × RS-232 serial  100 – 240 V / 50 – 60 Hz  equipment guidelines relative to mechanical and bility.  Standard  •  •  •  100 / 200
Power supply CE Conformity  Configuration  EasyTouch™	The SMT 1 fully complies with all CE and EMC electrical safety and electromagnetic compation with all CE and EMC electrical safety and electromagnetic compation with the safety and electromagnetic compation with external balance.  Thickness Width Length (Diameter) Hardness Program capacity / Sample size User administration	Ethernet, 2 × USB, 3 × RS-232 serial  100 – 240 V / 50 – 60 Hz  equipment guidelines relative to mechanical and bility.  Standard  • • • • 100 / 200
Power supply CE Conformity  Configuration  EasyTouch™	The SMT1 fully complies with all CE and EMC electrical safety and electromagnetic compation of the safety and	Ethernet, 2 × USB, 3 × RS-232 serial  100 – 240 V / 50 – 60 Hz  equipment guidelines relative to mechanical and bility.  Standard  •  •  100 / 200  •
	The SMT 1 fully complies with all CE and EMC electrical safety and electromagnetic compation of the safety and	Ethernet, 2 × USB, 3 × RS-232 serial  100 - 240 V / 50 - 60 Hz  equipment guidelines relative to mechanical and bility.  Standard  •  •  •  100 / 200  •  10 kg (22 lbs)

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