MT 50

Robust and easy to use, the MT50 is the ideal choice for manual testing – from multi-parameter analysis to "hardness only" tests of all types of shapes, sizes, and materials.

sotax

Manual Tablet Hardness Tester

MT50 —
It doesn't get
any easier.

sotax.com/MT50

5 parameters

Simple operation

Robust and precise
up to 800 N

Dr. Schleuniger® technology

Electronic data
management

FastTest™ thickness station for
efficient multi-parameter measuring

Intuitive icon-based EasyTouch™
control with user administration

SmartWay™ networking and data
management with q-doc®

Configurable test reports and various
printer interfaces including export of
test results to USB flash drive

Width / Length (Diameter) / Hardness
station with optimized jaw movements for
highest precision and short cycle times

Recording of weight
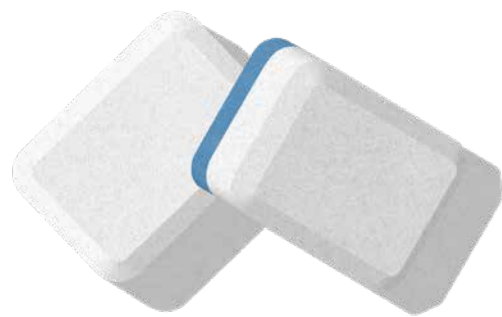measurements from external
analytical balance

SmartProtect™

Exchangeable tongues for
easy tablet orientation

Debris collection bin

All sizes, shapes, and materials.

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 MT50 testing capabilities for 3-point bending strength tests or other testing methods.

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

Extended jaw for testing large objects up to 65 mm

Quick-change tongue with flat surface

Clip-on jaws for 3-point bending strength test

Your application?

The MT50 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".

EasyTouch™

Available in your local language, the MT50 user interface 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.

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.
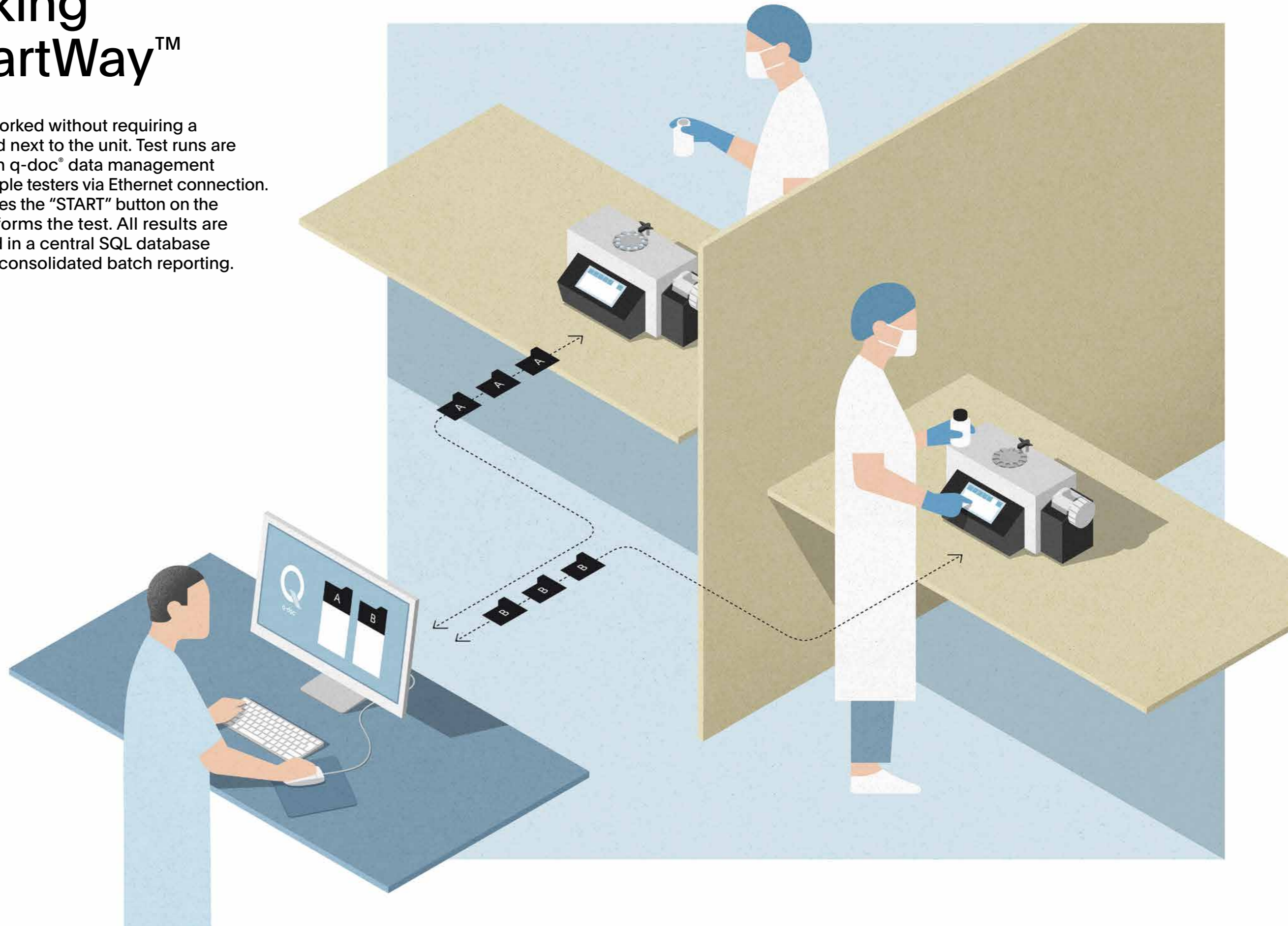

Fast, Faster, FastTest™

Simply the fastest way to perform a series of measurements. Equipped with an integrated thickness gauge, the MT50 becomes a true multi-purpose testing system that accumulates weight, thickness, width, length / diameter, and hardness results in a single test protocol. With little practice, operators can execute multi-parameter runs quicker and easier than with any other manual tester on the market.

Networking the SmartWay™

The MT50 can be networked without requiring a computer to be located next to the unit. Test runs are automatically sent from q-doc® data management software to one or multiple testers via Ethernet connection. The operator only presses the "START" button on the MT50 display and performs the test. All results are automatically recorded in a central SQL database for full traceability and consolidated batch reporting.

Make life easier.

Daily functional check?

Quickly check the hardness station of your MT50 before starting daily tasks. Sometimes referred to as "mechanical tablet", the function checking device FCD™ is calibrated to simulate the breaking of a tablet at a defined force. Simply place the FCD™ in the MT50 test area and start the automated checking routine. If required, a report including "pass/fail" evaluation can be printed on completion.

DQD™ dynamic qualification.

Using a fully traceable and certified high-precision load cell, the entire hardness range can be qualified using the DQD™ qualification tool. A fully automated routine allows to adjust and verify the complete measuring range on multiple points without requiring static reference weights. Ask your local sales and service partner for more information on available SOTAX Premium Services.

MT50 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 – 25 mm
	Repeatability	± 0.03 mm
Width / Length (Diameter)	Units of measure	mm / inch
	Resolution	0.01 mm
	Measuring range	2 – 35 mm / optional: up to 65 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)	Static: with reference weights; dynamic: with DQD™
Measuring principle	Constant speed	0.05 – 5 mm/s, programmable
	Linear force increase	10 – 200 N/s, programmable
Printer	PostScript® 3 (PS3)	Ethernet, USB
	Epson® 40col.	RS-232 serial
Interfaces		Ethernet, 2 × USB, 3 × RS-232 serial
Power supply		100 – 240 V / 50 – 60 Hz
CE Conformity		The MT50 fully complies with all CE and EMC equipment guidelines relative to mechanical and electrical safety and electromagnetic compatibility.

		Standard	Easy
Configuration	Weight (Mass), with external balance	○	–
	Thickness, with integrated FastTest™	○	○
	Width	○	–
	Length (Diameter)	○	○
	Hardness	●	●
EasyTouch™	Program capacity	100 products	–
	User administration	●	●
	Xport™ option (export on USB flash drive)	○	–
Data Management	q-doc® software, with SmartWay™ networking	○	–
Weight	(without packaging)	10 kg (22 lbs)	
Dimensions	Width	404 mm (15.9 inch); with 65 mm option: 434 mm (17.1 inch)	
	Depth	288 mm (11.4 inch)	
	Height	177 mm (7.0 inch); with FastTest™: 207 mm (8.2 inch)	

● included / required
○ optional

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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