ST 50

Fast, efficient, and precise – the ST50 sets new standards for testing 5 physical parameters. Operators simply insert samples, press "START", and let the instrument do the rest.

Semi-Automatic Tablet Testing System

reddot award 2014
winner

ST50 —
Smart. Smarter.
SmartTest.

sotax.com/ST50

5 parameters

Tablet orientation with SmartAlign™

Video monitoring

Fast and precise up to 800 N

Electronic data management

Width / Length (Diameter) / Hardness station with SmartAlign™

Thickness station with highly accurate linear sensing technology

Video monitoring for full traceability and simplified OOS investigations

Integrated weighing module or external analytical balance

High-precision calibration with static SmartCal™ weights or dynamic qualification with DQD™

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

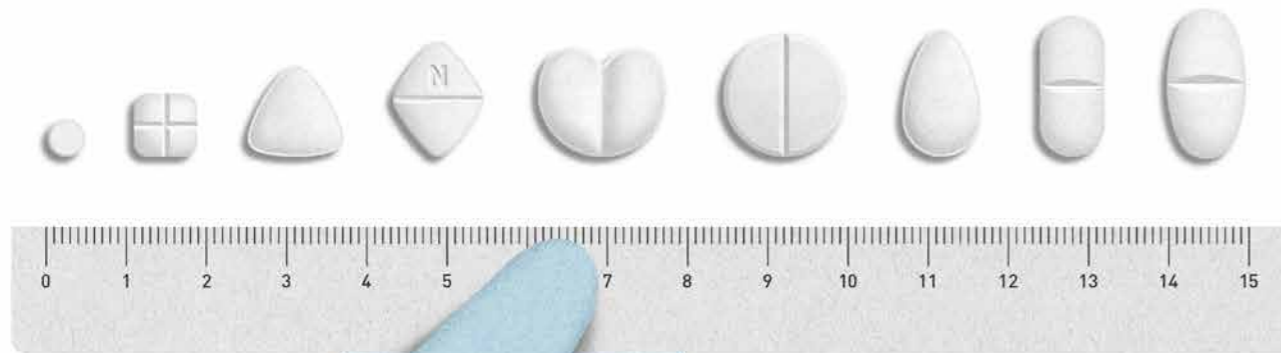23-position carousel (quick-change without any tools)

Anti-static safety cover

Intuitive icon-based EasyTouch™ control with user administration

SmartWay™ networking and data management with q-doc®

ST50
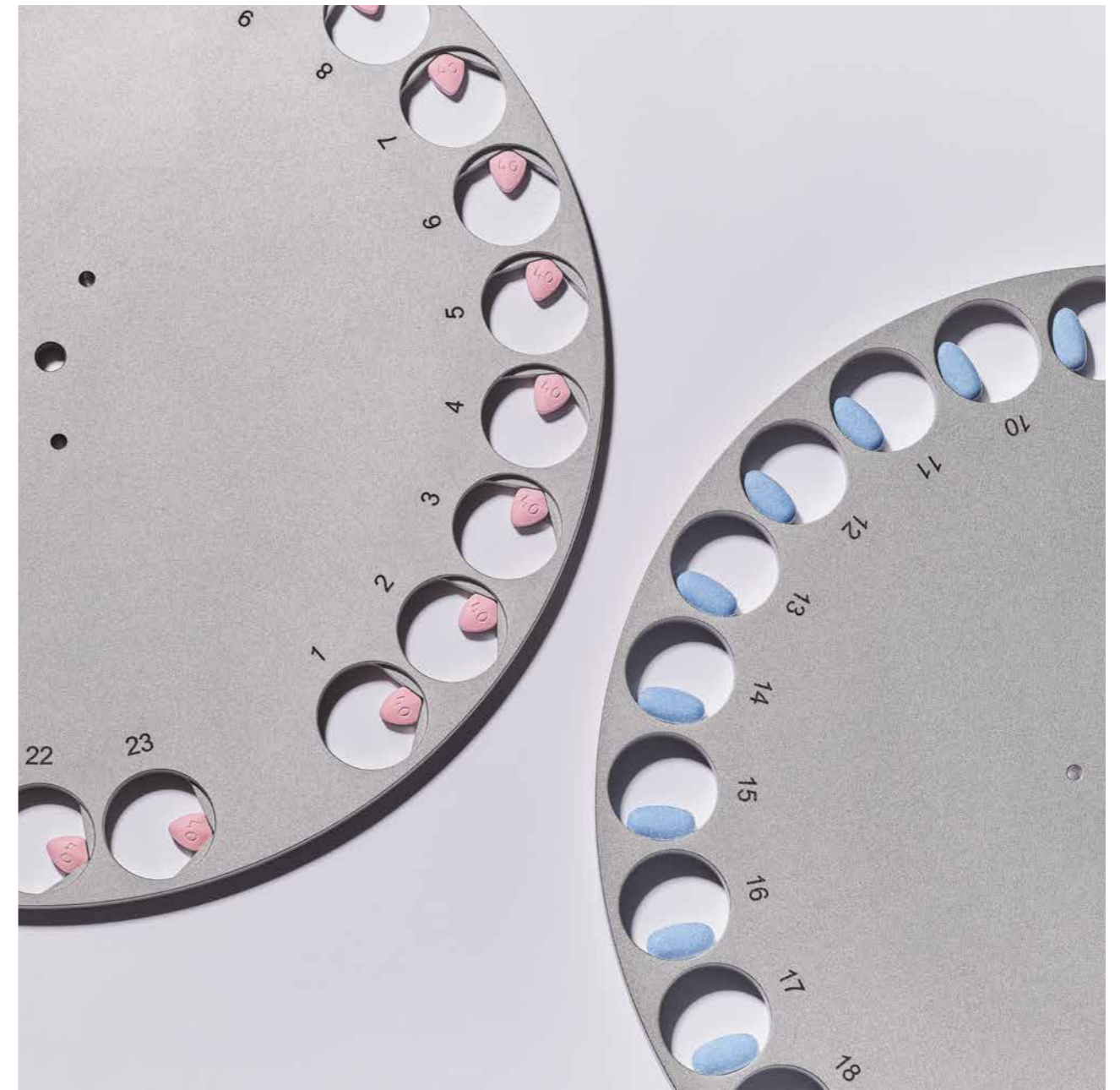Device name: 301.0565
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sotax

Reliable tablet orientation with SmartAlign™

Fast. Precise. Flexible.

The ST50 with patented SmartAlign™ tablet positioning system handles an exceptionally wide range of tablet sizes and shapes. Optimized jaw movements, powerful electronics, and a special "sensitive mode" for breaking forces as low as 2 N allow testing of small mini-tabs, very hard tablets up to 800 N, and even large effervescent tablets up to 25 mm diameter – all on the same unit.

Special applications.

Proven to master even the most unusual shapes, the ST50 can be fitted with a custom carousel specifically designed for your application. Change-over only takes seconds and doesn't require any tools. Because settings are stored individually for each product and method, the correct custom parameters are automatically loaded when starting a test run.

Video monitoring.

The ST50 can be optionally fitted with video monitoring to automatically record the tablet position during width, length / diameter, and hardness measuring. Video clips are created for each sample – marked with tablet ID# and time stamp for easy retrieval in case of OOS investigations. In R&D, it provides great observation possibilities for better understanding of breaking characteristics.

Intuitive and user-friendly with EasyTouch™

Simple.

Intuitive icon-based navigation and logical menu structures with intelligent operator assistance ensure fast test setup, short training times, and error-free data entry. Although available in more than 15 different languages, the visual EasyTouch™ experience is almost language independent. To prevent unauthorized access, the ST50 features a complete user administration.

Prevent mistakes.

Whenever a test is performed, all required product and method parameters are automatically loaded – ensuring that test conditions comply with your specifications. Because key test parameters such as nominal values, tolerances, and even the hardness measuring principle may differ from product to product, the EasyTouch™ manages all settings individually per product.

Reporting.

The ST50 offers two configurable templates for your test protocols – from comprehensive reports to very basic reporting needs. At the end of each run, a test protocol is automatically printed. Alternatively, results can be exported to a USB flash drive or stored electronically in a central SQL database for consolidated batch reporting with q-doc® data management.

SmartWay™ —
Send test runs to the ST50.

Managing your testing processes including all method specifications and test results from multiple instruments has never been easier. With SmartWay™ networking, you don't even need a computer next to your tester(s). Supervisors send test runs to be performed directly to one or multiple instruments using q-doc® data management. All operators have to do is to insert tablets and press the "START" button on the ST50 touch screen.

Calibration — Simply precise.

Static qualification with SmartCal™

The patented SmartCal™ system uses a single certified reference weight in multiple positions to change the force applied on the ST50 load cell. A menu-guided qualification routine allows for high-precision adjustment and verification with different loads applied. Calibration does not require any (partial) disassembly of the tester or stacking of several reference weights.

Static qualification with a single SmartCal™ reference weight that can be applied in multiple positions

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.

Dynamic qualification of the entire hardness range without requiring static reference weights

ST50 Technical Specifications

Weight (Mass)	Integrated weighing module	Sartorius®
	Units of measure	mg / g
	Resolution	0.1 mg
	Measuring range	up to 60 g
	Repeatability (typically)	0.15 mg
	Linearity deviation (typically)	± 0.2 mg
	External balance	Mettler Toledo®/ Sartorius®
	Resolution	1.0 mg / 0.1 mg / 0.01 mg
Thickness	Units of measure	mm / inch
	Resolution	0.01 mm
	Measuring range	2 – 15 mm
	Repeatability	± 0.03 mm
Width / Length (Diameter)	Units of measure	mm / inch
	Resolution	0.01 mm
	Measuring range	2 – 25 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 SmartCal™ 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 ST50 fully complies with all CE and EMC equipment guidelines relative to mechanical and electrical safety and electromagnetic compatibility.	

		WTDH	TDH+
Configuration	Weight (Mass)	Integrated	External
	Thickness	●	●
	Width	●	●
	Length (Diameter)	●	●
	Hardness	●	●
Safety cover	(anti-static)	●	○
EasyTouch™	Program capacity	100 products	100 products
	User administration	●	●
	Xport™ option (export on USB flash drive)	○	○
Data Management	q-doc® software, with SmartWay™ networking	○	○
	Video monitoring	○	○
Weight	(without packaging)	32 kg (71 lbs)	30 kg (67 lbs)
Dimensions	Width	395 mm (15.6 inch)	395 mm (15.6 inch)
	Depth	505 mm (19.9 inch)	505 mm (19.9 inch)
	Height	260 mm (10.3 inch)	256 mm (10.1 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.