



Tapped volume/tester

# SVM Tapped Density Tester

Easily measure the tapped volume of powders, granulates and similar products



**ERWEKA**







# Determination of tapped volume with **highest precision**

The **ERWEKA SVM** has been designed for measuring the **tapped volume** and tapped density of powders, granules and similar products.

The SVM series works in accordance with USP and EP and is available for USP method 1 and USP method 2 with 1 or 2 test stations.

In addition, the combination device SVM 223 is equipped with 2 test stations - one for method 1 and one for method 2 (testing only time-controlled, not based on the number of strokes).

The robust but precise construction allows numerous tests with highest accuracy and thanks to the reduced membrane keyboard and the LC display, the devices of the SVM series are easy to use. After completion of the test, the automatically calculated test results can be printed out as a report.

-  100% USP/EP-compliant measuring method according to strokes and time
-  Automatic calculation of the Hausner factor
-  Different conforming glass cylinders available on request
-  Interface for immediate printing of the results
-  Detailed test report
-  Optional noise box available for noise containment

## Robust and compact

Due to their robust design, the devices are extremely reliable and durable and, thanks to their compactness, require little laboratory space.



# The **highlights** of the SVM



## Automatic calculation of the test results

NEW

The devices of the SVM series allow an automatic calculation of the test results. This is done by entering the intermediate results into the device after every three or four tapping periods. The following values can be calculated:

- Initial bulk density
- Tapped density
- Hausner factor
- Compressibility index

## 100% USP/EP compliant

The SVM series works 100% USP/EP compliant and provides reliable test results. Regular tapping results in rapid, constant compression of the volume.

## Detailed test report

With the help of the print function all test results can be displayed in detail in a test report. The index is listed with V0 or V10 depending on the setting.

# One device - two methods The SVM 223

The SVM 223 combines two different methods in one single unit.

The first test station works according to the lifting height requirements according to USP/EP method 1 with a lifting height of 14 mm. The second test station works, at the same time, in accordance to USP/EP method 2 with a lifting height of 3 mm.

Both test stations are in parallel operation and run with the respective strokes per minute. (USP 1: 300 +/- 15 strokes per minute, USP 2: 250 +/- 15 strokes per minute). The test runs time controlled and not by number of strokes.



## Accurate measurements – Effective Implementation

### All variants at a glance

The following table provides an overview of the variants of the SVM series. The 5 devices are equipped with different test stations and according to different USP methods. The exception is the SVM 223, in which both glass cylinders and both USP test methods are used.

Test method	Number of test stations	
	1 test station	2 test stations
USP-Method 1 (Lifting height 14 +/- 2 mm)	SVM 121	SVM 221
USP-Method 2 (Lifting height 3 +/- 0,2 mm)	SVM 122	SVM 222
USP-Method 1 + 2		SVM 223

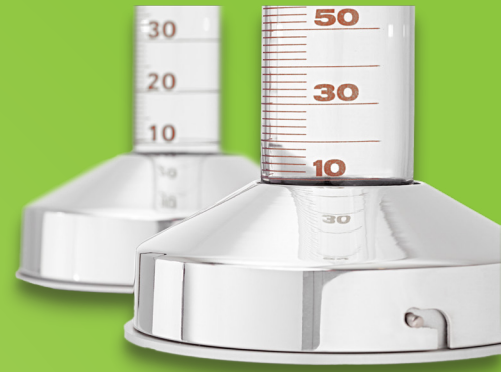
# Options and possible equipment

## Equipment

Glass cylinders, 100ml / 250ml / 500ml

Qualification tool kit

IQ-/OQ-Documents



All ERWEKA glass cylinders with adapter kit according to USP or EP.

## Optional: Noise Box

The ERWEKA noise reduction box is the perfect addition to our tapped density tester.

The noise box is made of sturdy polymer housing and is lined with a 30 mm thick, white EPE damping material.

It reduces the noise of a tapped volume tester by up to 25 dB (A).\*



## Dimensions and Data

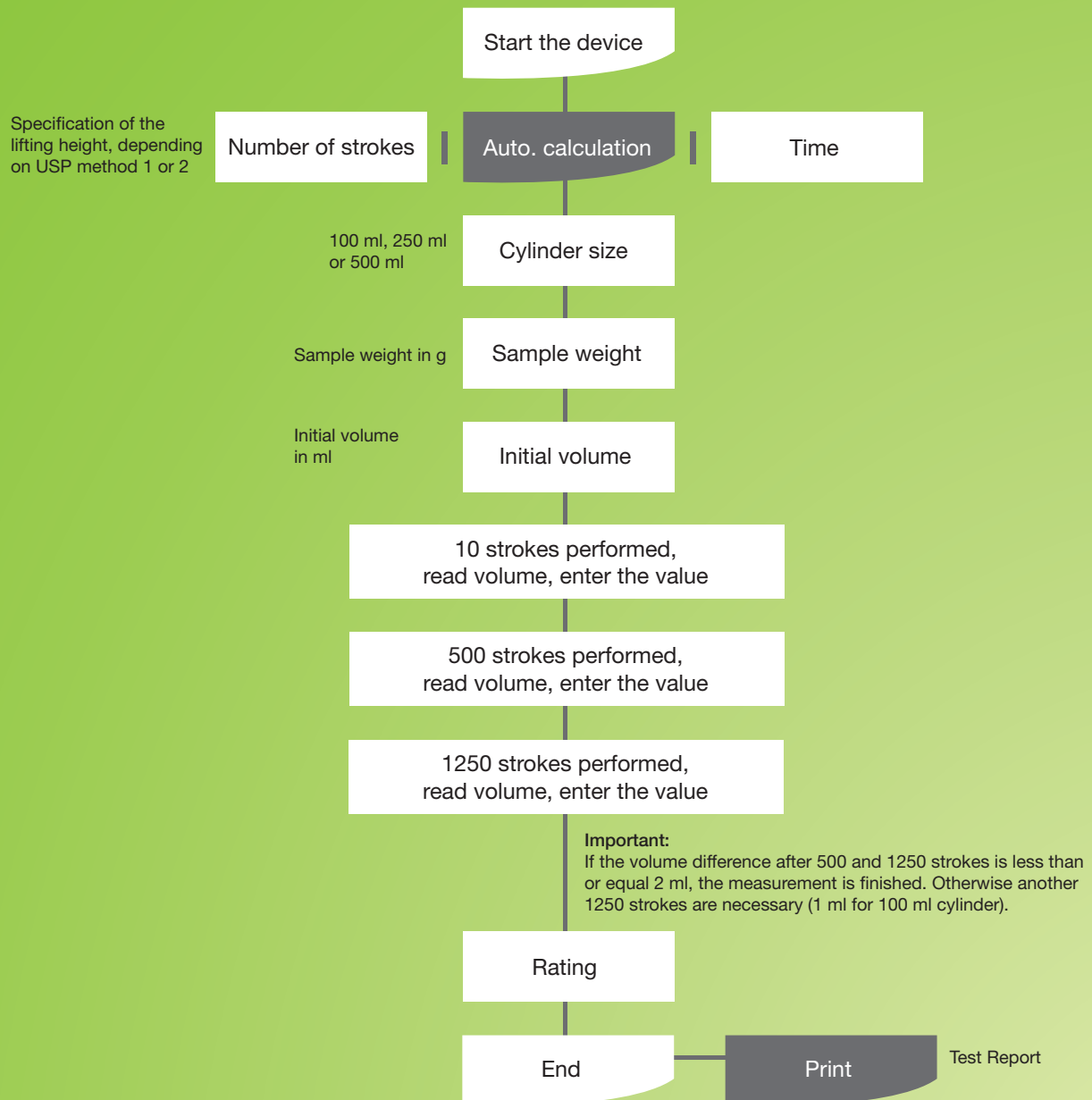
Inside height, width, depth	761 mm x 390 mm x 497 mm
Height, width, depth	841 mm x 472 mm x 594 mm
Weight	25 kg
Noise reduction*	appr. 25 dB (A)

\*Compared to open SVM tapped density tests (measured from the standard horizontal distance to the noise chamber of 0.65 m and 1.6 m from the floor)



# Test run USP/EP procedure

A classic test run with automatic calculation proceeds as follows:



## Technical Data

	SVM 121/221	SVM 122/222	SVM 223
Height, width, depth	300 / 350 / 260 mm		
Weight	9,5 kg		
Number of test stations	1 (SVM 121) or 2 (SVM 221) glass cylinders	1 (SVM 122) or 2 (SVM 222) glass cylinders	2, one according to USP method 1 and one according to USP method 2 (Pharm.Eur.) based on lifting height
Lifting height Strokes / min	14 mm ± 2 mm, 300 strokes / min. ± 15 according to USP / EP method 1	3.0 mm ± 0.2 mm, 250 strokes / min. ± 15 according to USP / EP method 2 and DIN EN ISO 787-11	14 mm ± 2 mm, 300 strokes / min. ± 15 according to USP / EP method 1 3.0 mm ± 0.2, 250 strokes / min. ± 15 according to USP / EP method 2 and DIN EN ISO 787-11
Keypad	Membrane function keypad		
Display	2 illuminated LED displays		
Preselection of the test period	In time: 1 sec. up to 9 hours, 59 minutes / < 1 h sec. increments, > 1 h min increments in strokes: 1 to 9,999		
100 ml measuring cylinder support plate	130 ± 16 g, 240 ± 12 g		
250 ml measuring cylinder support plate			220 ± 44 g, 450 ± 10 g



## Contact

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