



SPIROTHOR SMART

HANDHELD SPIROMETER

SPIROTHOR SMART IS A COPD AND ASTHMA DIAGNOSTIC AND SCREENING DEVICE FOR GENERAL PRACTITIONERS, RESPIRATORY PHYSICIANS AND HOME CARE.

SpiroThor Smart is based on technology, an ultrasonic sensor that is uniquely **waterproof** inside, **disinfectable** and it doesn't need any external calibration.



SpiroThor Smart **plays a video** on its own screen and instructs the patients of its proper use with human voice.



Educating the patient on the fly: SpiroThor Smart provides an automated quality assessment after each measurement, and **instructs the patient** of ways to improve his respiratory effort.



Automated interpretation: SpiroThor Smart generates an automated diagnostic report after each measurement and the device **communicates** the findings **with human voice**.

- WATERPROOF SENSOR INSIDE, IT CAN BE DISINFECTED WITH COLD DISINFECTANT LIQUID, EVEN WASHED THROUGH WITH TAP WATER
- DOES NOT REQUIRE EXTERNAL CALIBRATION
- FEATURES THE ACCURATE AND ROBUST TECHNOLOGY
- FEATURES A BUILT-IN RECHARGEABLE BATTERY
- QVGA DISPLAY WITH TOUCHSCREEN
- AUTOMATED DIAGNOSIS WITH HUMAN VOICE COMMUNICATION
- LARGE MEMORY, 5000 RECORDS, 100 PATIENTS

DATA SHEET	
PRECISION	3 % of reading full range
RESOLUTION	3 mL/sec
FLOW RANGE	± 18 L/sec
ANALOG SAMPLING RATE	200 MHz
DIGITAL SAMPLING RATE	80 Hz
DEVICE DIMENSIONS	35 x 120 x 85 mm
POWER SUPPLY	USB 5V or built-in rechargeable battery

THE FOLLOWING STANDARD PULMONARY FUNCTION PARAMETERS ARE DISPLAYED IN THE PRIMARY CARE CONFIGURATION:

FVC, PEF, FEV1, FEV1/FVC, FEF25-75, FEF25-50, FEF50-75, FEF25, FEF50, FEF75, FEV6, FET, FVC, PIF, FIV1, FIV1/FIVC, FIT, ELA



EASY DISINFECTION PROCESS

Ultrasonic based spirometers have the advantage of no moving parts, hence making them **reliable** over the entire life of the device. It is highly accurate and since it encases a continuous plastic tube, it can be **easily disinfected** by using any hospital grade cleaning solution. We recommend the use of the Instrumed disinfecting agent as the optimal cleaning solution for respiratory devices.



AUTOMATIC CALIBRATION

The device has a built-in automatic calibration so **does not require daily calibration**.





NEXT GENERATION SPIROMETRY

Compliance and education are major issues in home care spirometry. SpiroThor Smart solves these issues with an **audio-visual presentation**.

SpiroThor Smart has audible human voice interpretation

and measurement control, it means during the measurements the device plays audible human voices that explains how to improve maneuver quality.

Measurement tutorial presentation system for increased patient compliance.

The device plays a simplified video with human voice explanation on its own screen. The device explains to the patient its own usage with a tutorial comprising simplified video and audible text. In case of a poor maneuver such as prematurely stopped FVC, coughing, slow starting, poor effort, short expiration, or failed reproducibility the device explains the reason of the poor maneuver to the patient with human voice and also provides a direct tutorial which focuses on the reason of the poor maneuver.



MECHTLER PROTOCOL

Ventolin (Salbutamol), Serevent and Seretide can all be used for asthma control. But which one is the most efficient to treat the respiratory conditions? SpiroThor Smart can provide an objective assessment of the efficiency of the drug taken by the patient. Each pharmaceutical is taken by the patient for a given time and at the end of the test period the effect of the drugs on the respiratory conditions of the patient is evaluated by SpiroThor Smart. **The MECHTLER protocol can optimize both asthma and COPD treatments with selected drugs.**

