



Accurate and easy-to-use hand-held device for flexible spirometry screening

- ▶ Full Spirometry Testing (FVC, SVC, MVV, Bronchial Challenge Test)
- ▶ Accurate and reliable bi-directional turbine flowmeter in any conditions
- ▶ PC software for data management and realtime testing
- ▶ USB connection (PC and external printer)
- ▶ Internal memory of up to 600 tests/patients
- ▶ Integrated Digital Oximeter (optional) for HR and SpO₂ monitoring



The Spiropalm is the NEW hand-held device designed for flexible spirometry screening. Tests can be performed easily and accurately wherever it is needed. Results are monitored on the bright and clear black and white display and printed by linking the Spiropalm directly to an external printer or PC.

The Spiropalm is a very compact portable spirometer (18x7.5x3 cm) and uses a bidirectional turbine flowmeter (requires the use of antibacterial filters). Optionally, the Spiropalm can be implemented with an integrated Nonin® pulse oximeter for measuring SpO₂ and HR parameters.

The device has a simple interface, using a navigation tool similar to cellular phones.

High Connectivity

The Spiropalm offers 3 different interfacing options:

- ▶ A USB-B for direct printing with an external inkjet or laser printer (PCL-compatible)
- ▶ A USB-A for PC connection
- ▶ A port for connection with a pulse oximeter for SpO₂ monitoring



Display:
Black and white LCD display (320x240 pixels) with realtime monitoring of test performance, plus encouragement features for children and non-compliant patients



Applications

- ▶ Small Clinic, Family Practice
- ▶ General Practitioner, Primary Care
- ▶ Mobile Solutions
- ▶ Occupational Health
- ▶ Preventive Medicine
- ▶ Sports Medicine

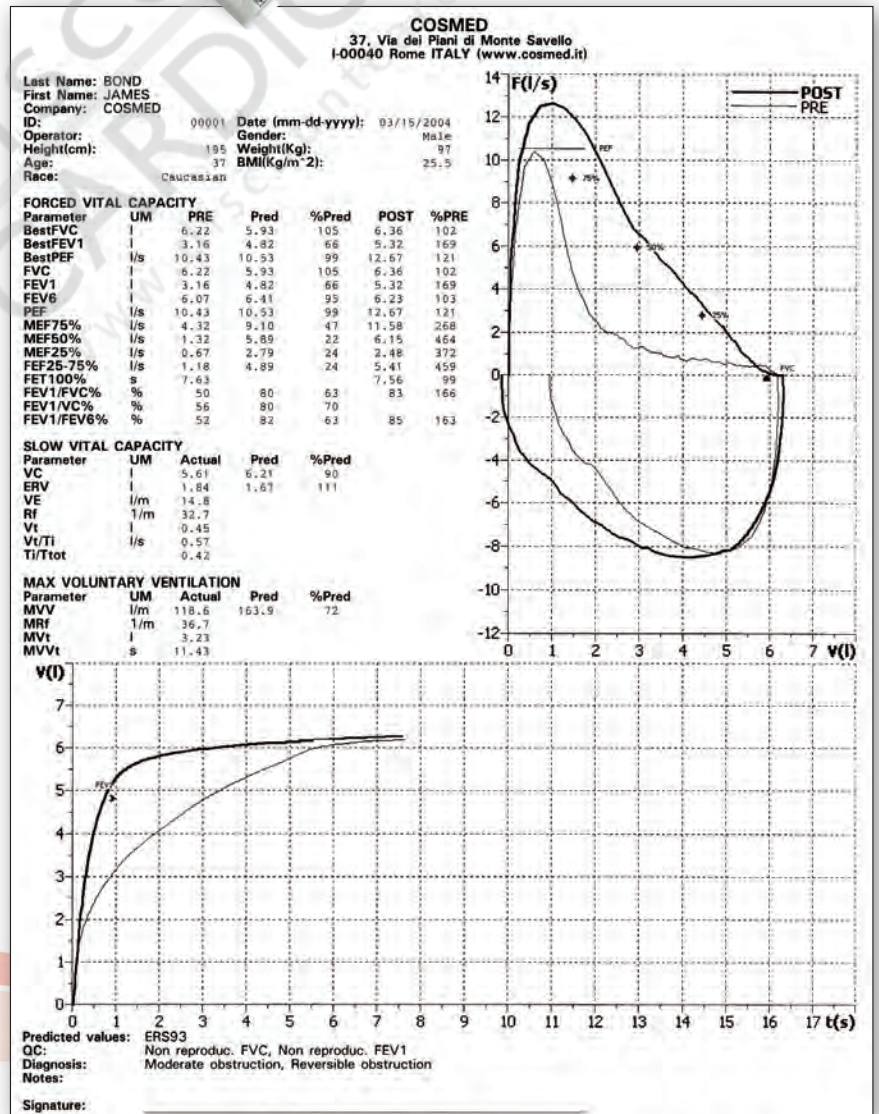
Accurate Measurements

COSMED flowmeters are extremely accurate and comply with the most stringent requirements for precision as determined by ATS and ERS.

- ▶ Full Spirometry (FVC, SVC, MVV, pre/post)
- ▶ Bronchial Challenge Test (Pre-Post)
- ▶ SpO₂ (option)
- ▶ Six-Minute Walk Test (6MWT)
- ▶ Normal values: ERS, NHANES III, Crapo 1981, Knudson 1983, ITS, Multicentrico Barcelona, LAM, Gutierrez, Pneumobil, Zapletal, Thai 2000, Pereira, Austria (Forche)

Reports:

The Spiropalm prints reports with PCL-compatible printers via a USB connection. Color printouts can also be generated using the included PC software.



Automatic Diagnosis

The automatic interpretation of test data, per the latest criteria determined by ATS and ERS, is automatically suggested by the software at the end of the test. The user can manually modify the diagnosis, customize the diagnosis database, and add notes. The Spiropalm is a unique spirometer in that it incorporates the diagnosis for COPD after a bronchial dilator test.

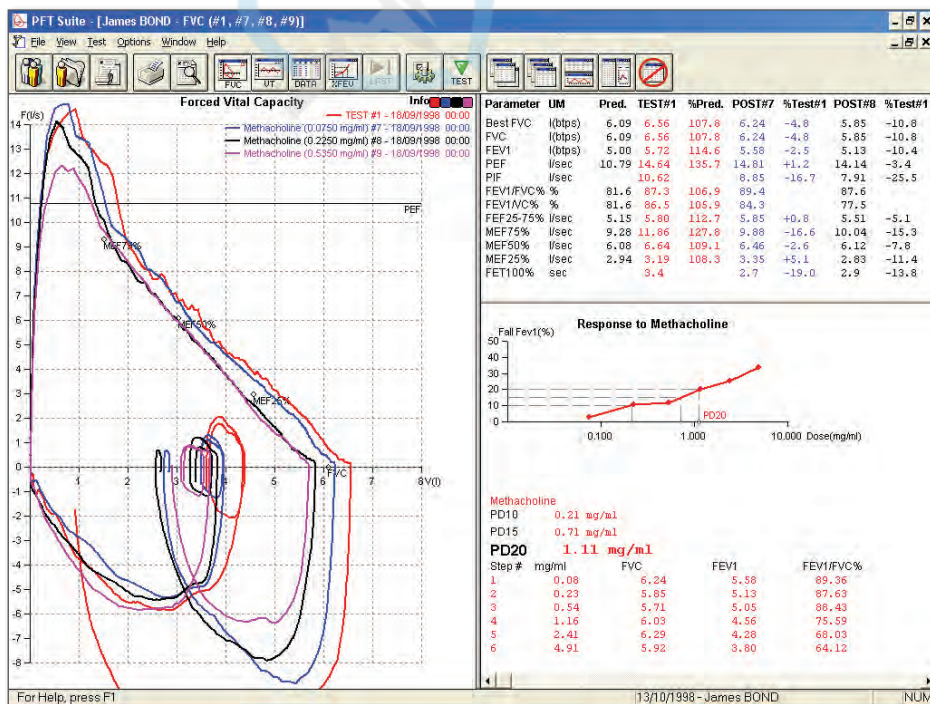
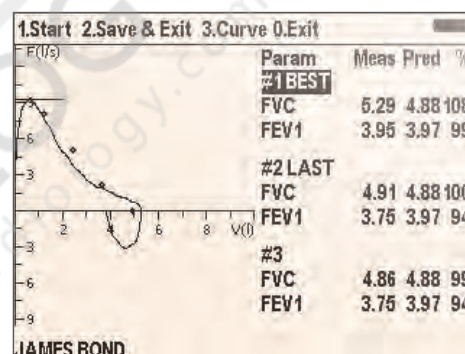
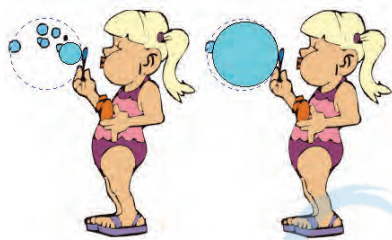
PC Software

The Spiropalm is integrated with an extremely user-friendly PC program, which allows online testing via a USB interface, and data download for the management of results through simple, intuitive commands and icons.

- ▶ Complete database management for patients, diagnosis, clinical reporting, and bronchial challenge protocols
- ▶ Advanced features and user-defined protocols to easily manage bronchial challenge tests
- ▶ Powerful post-analysis data management, including the option to compare tests performed in different test sessions



Digital Turbine Flowmeter:
The Digital Turbine Flowmeter does not require frequent calibration, and is extremely accurate and reliable in any conditions. It can be used with antibacterial filters (recommended) or cardboard mouthpieces.



Realtime graphic and numeric viewing of spirometry tests

Test

1	FVC
2	FVC post BD
3	FVC post BC
4	SVC
5	MVV
6	SPO2



Save PDF reports to the USB flash drive

Technical Specifications

Products Features

Flowmeter	Digital Turbine
Type	Bidirectional
Flow Range	0.08-20l/s
Volume Range	12 liters
Accuracy of Reading	±2%
Resistance	<0.6 cm H ₂ O/l/s @ 14 l/s
Temperature Sensor	0-50° C

Measured Parameter

FVC • IVC • VC • MVV • VT • FEV1 • FEV6 • FEV1/FEV6 • FEV6/FVC • PEF • PIF • FEV1/FVC • FEF 25-75 • FEV1/VC% • %FEV1 • MEF25% • MEF50% • MEF75% • FET 100% • Lung Age • ERV • IRV • VE • Rf • ti • te • ti/t.tot • VT/ti • Best FVC • Best FEV1 • IC • SpO₂ • HR

Predicted Values

ERS 1993 (ECCS 1983), NHANES III, Knudson 83, ECCS 1971, ITS, Zapletal, LAM, Pneumobil, Gutierrez (Chile), Multicentrico, Barcelona, Thai 2000, Austria (Forche), Crapo 1981, user defined predicted calculations

Hardware

Dimension (mm/in)	185 x 86 x 31 / 7.25 x 3.25 x 1.25
Weight (g/oz)	390 / 13.5
Display	LCD B/W 320 x 240 pixels (amber backlight)

Standard Packaging Includes

PC software and user manual, flowmeter, AC/DC adapter (110-240V), USB communication cable, pediatric mouthpiece adapter, mouthpieces and nose clips, anti-bacterial filters, CD-rom

Available Languages

English, Italian, French, German, Spanish, Portuguese, Turkish, Chinese (Mandarin), Korean

PC configuration required

Pentium or faster. Operating system: Windows XP, 2000, 98/95, NT, Vista (32 bit), Windows 7 (32 bit). 32 Mb RAM or more, available USB port, CD-rom drive, 20.Mb on HD space available, monitor VGA, SVGA, XGA, any mouse and printer compatible with the MS Windows™ operating system

USB printer: PCL (Printer Control Language) compatible

Electrical requirements

Internal Batteries	Rechargeable Li-Ion (1800mAh)
Battery Charger	Input: AC 100-240V 200A, Output: DC 12V 700A

Safety & Quality Standards

Equipment complies with MDD (93/42 EEC);

EN 60601-1 (safety) / EN 60601-1-2 (EMC).

COSMED is an organization whose quality management system is certified by CERMET according to UNI EN ISO 9001:2008 and UNI EN ISO 13484:2004



Distributed by:



COSMED USA Inc. California

1850 Bates Avenue
Concord, CA 94520

Toll Free +1 800 426-3763
Phone +1 (925) 676-6002
Fax +1 (925) 676-6005

COSMED USA Inc. Illinois

2211 North Elston Avenue #305
Chicago, IL 60614

COSMED srl Headquarters

Via dei Piani di Monte Savello 37
Rome 00041 ITALY
Phone +39 06 931-5492
Fax +39 06 931-4580

cosmed.com