

## Direct

## High Quality Spirometry

## Pure &amp; Simple

Performing spirometry tests could not be easier than with the Micro Direct **alpha touch** spirometer.

Simply enter the patient's details on the color touch-screen display, select FVC or VC and begin the test series.

Test information is presented in an easy to read format on a clear, bright color display. The best test is automatically selected and built-in quality control checks insure accurate results.

Test data along with the diagnostic interpretation and estimated lung age can be instantly printed on the integrated printer, converted to a PDF and printed using the included reports PC software or downloaded to the optional Spirotrac PC Software.

The **alpha touch** features a highly accurate Fleisch pneumotach flow measuring system, battery operated portability and is shipped complete with all necessary accessories in a study carrying case.

The easy to use and affordable all-in-one **alpha touch** spirometer provides a fast, accurate and cost effective spirometry solution.

**Micro Direct, Inc.**

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**Features**

- Rapid, low cost testing
- Accurate Fleisch pneumotach
- Color high resolution touch-screen display
- Fast, quiet internal printer or letter sized reports via "Reports" PDF software
- Rechargeable battery pack
- Real-time F/V or V/T curve
- Choice of child incentives
- Simple icon driven menus
- Clear, easy-to-read report
- On-screen test quality prompts
- Pres/Post bronchodilator comparison
- Autoclaveable flow head
- Complete with durable carrying case
- Spirotrac PC software (optional)
- 1-year warranty. Optional 5-year available

## Technical Specifications:

**Product:**

Micro Direct *alpha touch*

**Size:**

12" x 10" x 3"

**Weight:**

4 pounds 7 ounces net

**Subjects:** Name, ID, Age, Height, Gender, Smoking Status, Body Mass Index and more depending on model. Storage of up to 10,000 subjects

**Parameters Measured** (depending on model): VC, IVC, IC, VT (TV), TLC, RV, IRV, ERV, FRC, FVC, FIVC, FEV<sub>1</sub>, FEV<sub>3</sub>, FEV<sub>6</sub>, FEV<sub>1</sub>/VC, FEV<sub>1</sub>/FVC, FEV<sub>3</sub>/VC, FEV<sub>3</sub>/FVC, FEV<sub>1</sub>/FEV<sub>6</sub>, FEF<sub>75</sub>, FEF<sub>50</sub>, FEF<sub>25</sub>, FEF<sub>25-75</sub>, FEF<sub>25-75</sub>/FVC, FIV<sub>1</sub>, PIF, FIV<sub>1</sub>/FIVC, FIF<sub>25</sub>, FIF<sub>50</sub>, FIF<sub>75</sub>, FEF<sub>50</sub>/FIF<sub>50</sub>, FET, MVV<sub>ind</sub>, FEV<sub>1</sub> Ratio, FEV<sub>0.5</sub>, PEF L/min, PEF L/sec, FEF<sub>0.2-1.2</sub>, FEF75-85%, FEF25%, FEF50%, FEF75%, FMFT, FIF25%, FIF50%, FIF75%, PIF, FEV<sub>0.75</sub>, Lung Age and more

**Environmental Data:** Temperature (built-in sensor)

**Test Types:** Single breath tests, flow/volume loops, multi-breath testing, tidal breathing and combined VC/FVC type test methods supported

**Predicted Normals:** NHANES III, Polgar, Knudson, Crapo, Hsu and many more

**Suggested Interpretation:** User Selectable

**Storage Humidity:** 10% to 95%

**Storage Temperature:** 32-122°F

**Recommended Operating Range:** 63-98°F; Design Limits: 50 - 104°F

**Data Storage:** Stores up to 10,000 subjects

**PowerSAFE™:**

Input 100 - 240V AC 50-60Hz  
Output - 12V DC

**Battery Pack:** Rechargeable NiMH, 7.2V 1,800mAh

**Flow Detection Principle:** Fleisch type Pneumotachograph

**Volume Detection:** Flow integration sampling @ 100 Hz

**Resolution:** 10 mL volume; 0.01 L/s flow

**Accuracy when in Operating Range:**

Flow +/- from 10% to 5%  
Max flow rate +/- 16 L/s  
Min flow rate +/- 0.02 L/s

**Volume Accuracy:** Better than +/- 3%

**Maximum Display Volume:** 10 L

**Linearity:** +/- 3%

**Maximum Test Duration:** 90 seconds

**Flow Impedance:** <01.kPa/L/s @ 14 L/s  
Complies with ATS/ERS 2005

**Printer:** Thermal

**Performance Standards:** ISO 26782:2009; ISO 23747:2007; ATS/ERS 2005

**Safety Standards:** IEC 60601-1:2005

**Medical Devices Directive:** 93/42/EEC1993 as amended

**Designed & Manufactured Under:** ISO 13485:2003, FDA 21CFR820 and CMDR

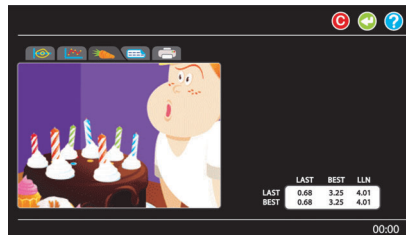
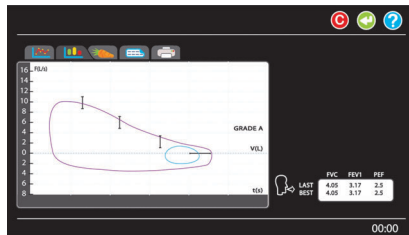
**Communications:** USB and CF Card

**Connectivity:** USB 2 B

## Ordering Info:

**Catalog #:**

MD6550	Micro Direct <i>alpha touch</i>
3385	SpiroSafe Filters (Bag of 100)
3395	MicroCheck Mouthpieces (Box of 200)
3314SB	Cardboard Mouthpieces (Box of 200)
3314B5	Cardboard Mouthpieces (Box of 500)
3301	Pediatric Mouthpieces (Bag of 100)
PSA1100	Pediatric Adapter
3327	Printer Paper (10 rolls)
3304	Nose Clips (Bag of 20)
42084	Flow Conditioning Meshes (10 per pack)
3325	3L Calibration Syringe



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