



# Vyntus™ SPIRO


PC-based spirometer powered by SentrySuite™ software

VYNTUS™ SPIRO

 **vyaire**™  
MEDICAL

# Vyntus™ SPIRO turns any PC into a precision spirometer

The Vyntus™ SPIRO was born out of our obsession to perfect a spirometer that is easy-to-use and has the flexibility to provide accurate results for the general user and the sophisticated labs. Stationary or portable PC spirometer as a stand-alone device or as part of the SentrySuite™ network.

Performs all of the essential spirometry tests:	
Enhanced Spirometry:	Slow Spirometry, Forced Spirometry and Maximum Voluntary Ventilation
Pre and post:	Medication testing or therapy control <div><div>FVC</div> → <div>SVC</div> → <div>MVV</div> →  → <div>FVC</div></div>
Bronchial Challenge Testing:	Software for safe and accurate bronchial provocation testing
Including flexible configuration tools:	
Report Designer:	Software for customizing reports and multi-format report output: PDF, TIF, JPG or RTF
Reference Set Designer	Software for customizing set of reference values like GLI, ECCS and NHANES



## Bronchial Challenge Testing

The integrated software-controlled bronchial challenge testing program assists accurate and safe provocation testing with user guidance throughout the entire protocol. The subject's response is monitored, and the software triggers to "proceed with next step" or "preset provocation level has been achieved".

## The heart of the system, the JAEGER™ flow and volume transducer

Thousands of PFT labs depend every day on our proven, accurate and reliable JAEGER pneumotach. For hundreds of publications the JAEGER pneumotach was the device of choice. Its excellent dynamic range effectively tests a broad population from small children to athletes.

## Complete your Vyntus™ SPIRO

**Vyntus Ambient Module**  
for automatic reading of temperature, air pressure and humidity.

**Vyntus ECG** – the Bluetooth® 12-Lead- PC-ECG for rest and stress.

Enable your Vyntus SPIRO for networking with report stations and a **HIS data integration** through SentryConnect.

## The MicroGard™ II filter:

- **Reprocessing cycle** for downstreamed parts can be **reduced to twice a year** using the MicroGard filter<sup>1</sup>.
- **Protects** your patients, staff, environment and instruments **from viral and bacterial contamination**.
- Follows the highest safety standards.
- Has an **exceptionally low resistance** to air flow.
- The impact on measurement results is completely removed.
- Is the only **validated filter** for the Vyntus SPIRO.



## Easy to disassemble flow-volume transducer.





## Vyntus™ SPIRO guidance & quality

## Coaching for operator and patient for best results



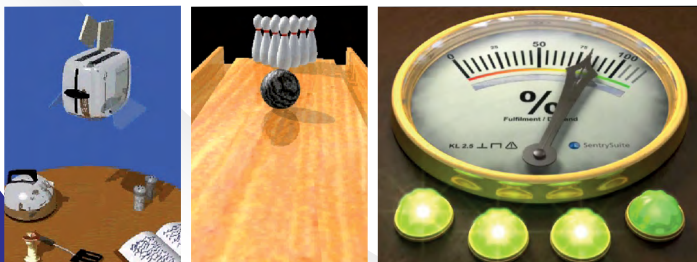
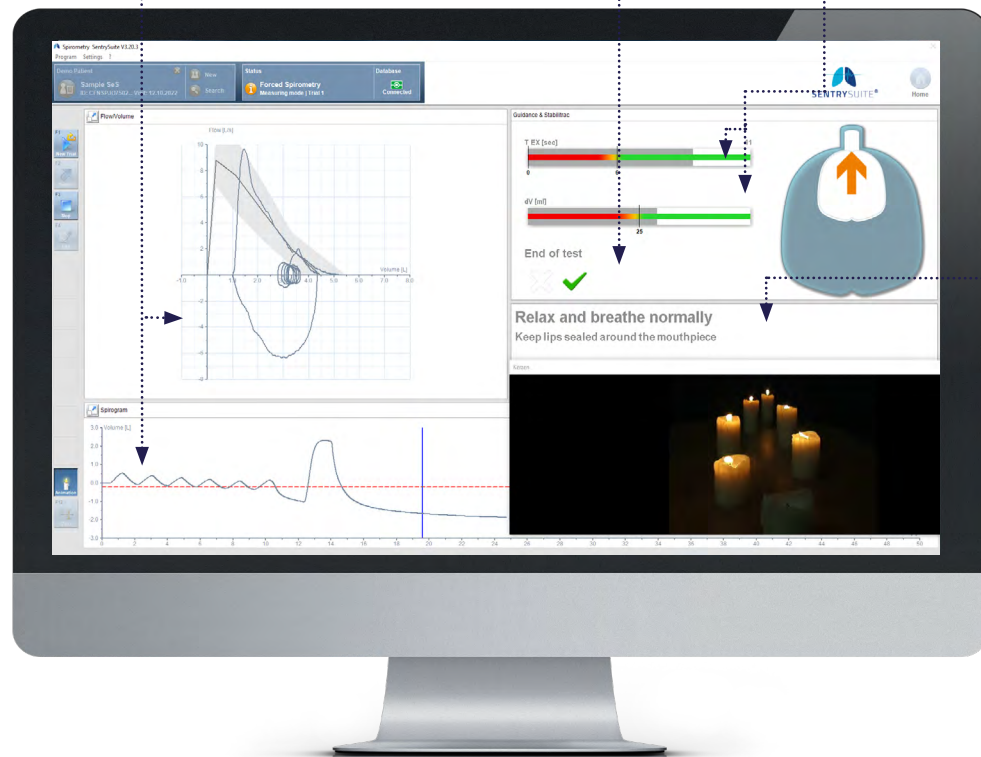
**SentrySuite™ records all breathing maneuvers**  
irrespective of the patient's cooperation  
and shows you the best curve

**Colored guidance bar**  
for in test exhalation time  
and plateau recognition

## Online breathing curves

**Check marks**  
indicate successful  
end of test

**Online textual guidance**  
helps coach clinician  
through each maneuver



## Animation incentives

Choose from 10 user-definable animated options to assist the operator and coach patients of all ages.

## Precise data management

SentrySuite™ software acts as your powerful assistant that will help guide and coach you from calibration to test completion and report generation.

**All test results in one adjustable table**  
for in test  
exhalation time  
and plateau  
latency recognition

**Clear graphs**  
scalable to full screen  
view with just one click

**Interpretation templates**  
Create your own  
templates with macros  
or select from a choice  
of several automatic  
interpretation algorithm

Color-coded  
classification bar :



### Color-coded repeatability graph

- enables direct visual feedback on test quality



## Additional product benefits



ERS/ATS 2019 Spirometry  
Guideline conform



No warm-up  
time requirements



Interactive animated  
calibration program



Review program helps  
efficiently complete  
test procedures



## Multilingual software and manuals



## Windows® 10 compatibility



SQL export and parameter trending are ideal for clinical trials use



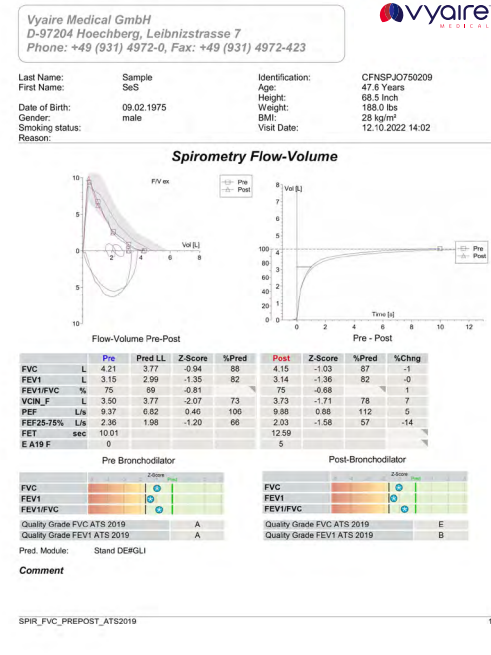
Manual data entry  
from other devices  
e.g. FeNo



GDT interface for smart integration comes standard



Direct PC connection  
through USB interface



## Flexible reporting

**Auto Report** selects automatically the relevant report to test procedure according to the ERS/ATS Reporting Guideline.

**Stay flexible with our web-based** access  
and **review** of patient data through our  
optional SentrySuite™ Mobile Review.

## Vyntus™ SPIRO technical specifications

Measurement	
Flow/Volume-loop (FVC)	FVC, FEV1, FEV1/FVC, MFEF 25-75, FEF 75, PEF, PIF and others
Slow vital capacity (SVC)	VC IN, VC EX, IC, ERV, IRV, VT, BF and others
Maximum voluntary ventilation (MVV)	MVV, BF MVV, VT MVV and others

Flow measurement	
Type	High-quality pneumotach
Range	0.1 to $\pm 16$ L/s
Resolution	1 mL/s
Accuracy	0.1 to 14 L/s: $\pm 5\%$ of reading or 0.2 L/s, whichever is greater
Resistance	$< 0.05$ kPa/L/s (0.51 cmH <sub>2</sub> O/L/s) at 10 L/s

Volume integration	
Type	Software volume integration of flow signal
Range	30 L (software limited)
Resolution	1 mL
Accuracy	0.5 to 8 L: $\pm 3\%$ of reading or 0.05 L, whichever is greater

Ambient conditions		Power supply	
Temperature	+10 °C to +34 °C (+50 °F to 93.2 °F)	Mains voltage	5 V DC via USB
Relative humidity	20 to 80 % RH, non-condensing	Classification of applied parts	
Ambient pressure	700 to 1060 hPa (525 to 795 mmHg)		
Altitude	≤ 3000 m	Type applied part	B

Operating Mode		Category according to MDD 93/42/EEC (2007)	
Complete system	Continuous operation	Complete system	Active class IIa medical product

Standards, directives and market clearances	
Standards	EN 60601-1, EN 60601-1-2, EN 62304, EN 62366, EN ISO 14971, EN ISO 10993-1
Directives	93/42/EEC amended by 2007/47/EC, RoHS 2011/65/EU compliant
Market clearances	CE, FDA 510(k) clearance

## Components

JAEGER™ pneumotach consists of handle and 2 pneumotachs

Set of accessories mouthpieces, nose clips, elbows, calibration adapter

Complete SentrySuite software  
package inclusive detailed  
Instructions for Use



## Reference

\*based on the Bio Burden DIN EN ISO 11737-1: Report 18AA0193

### GLOBAL HEADQUARTERS

Vyaire Medical, Inc.  
26125 N. Riverwoods Blvd.  
Mettawa, IL 60045  
USA



Vyaire Medical GmbH  
Leibnizstraße 7  
97204 Hoechberg  
Germany



### AUSTRALIAN SPONSOR

Vyaire Medical Pty Ltd  
Suite 5.03, Building C  
11 Talavera Road  
Macquarie Park, NSW 2113  
Australia

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