Vyntus™ SPIRO

PC-based spirometer powered by SentrySuite™ software

vyaire™
MEDICAL

Vyntus™ SPIRO

Obsessed with perfection

Vyntus™ SPIRO was born out of our obsession to perfect a spirometer that meets the needs for clinicians. Vyntus™ SPIRO has proven[1] sensor technology that is designed to be easy to clean, comprehensive software that is designed to be easy-to-use, and is as much at home being a stand-alone device as it is a part of a SentrySuite™ network.
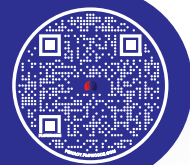
Measurement capabilities

- Forced Spirometry
- Slow Spirometry
- MVV
- Pre/Post Bronchodilator
- Bronchial Challenge Software

Complete your Vyntus™ SPIRO

- Optional Ambient sensor
- Optional slim, all-inclusive mobile cart with drawer, syringe holder, and filter basket

Scan to
visit the
**Vyntus™ SPIRO
Video Series**

Seeking to perfect technology

Thousands of PFT labs expect Vyntus™ SPIRO's pneumotach to **meet the 2019 ATS/ERS Spirometry Standards[2] including the waveform testing requirements of ISO 267822 for proven accuracy**. And it does just that! Its wide dynamic range tests broad populations from small children to adults.

Disinfect or replace your pneumotach-it's your choice!

When using our MicroGard™ II bacterial/viral filter with each patient, we have validated that your Vyntus™ Spiro pneumotach needs to be **cleaned and disinfected only once every 6 months**.[3]
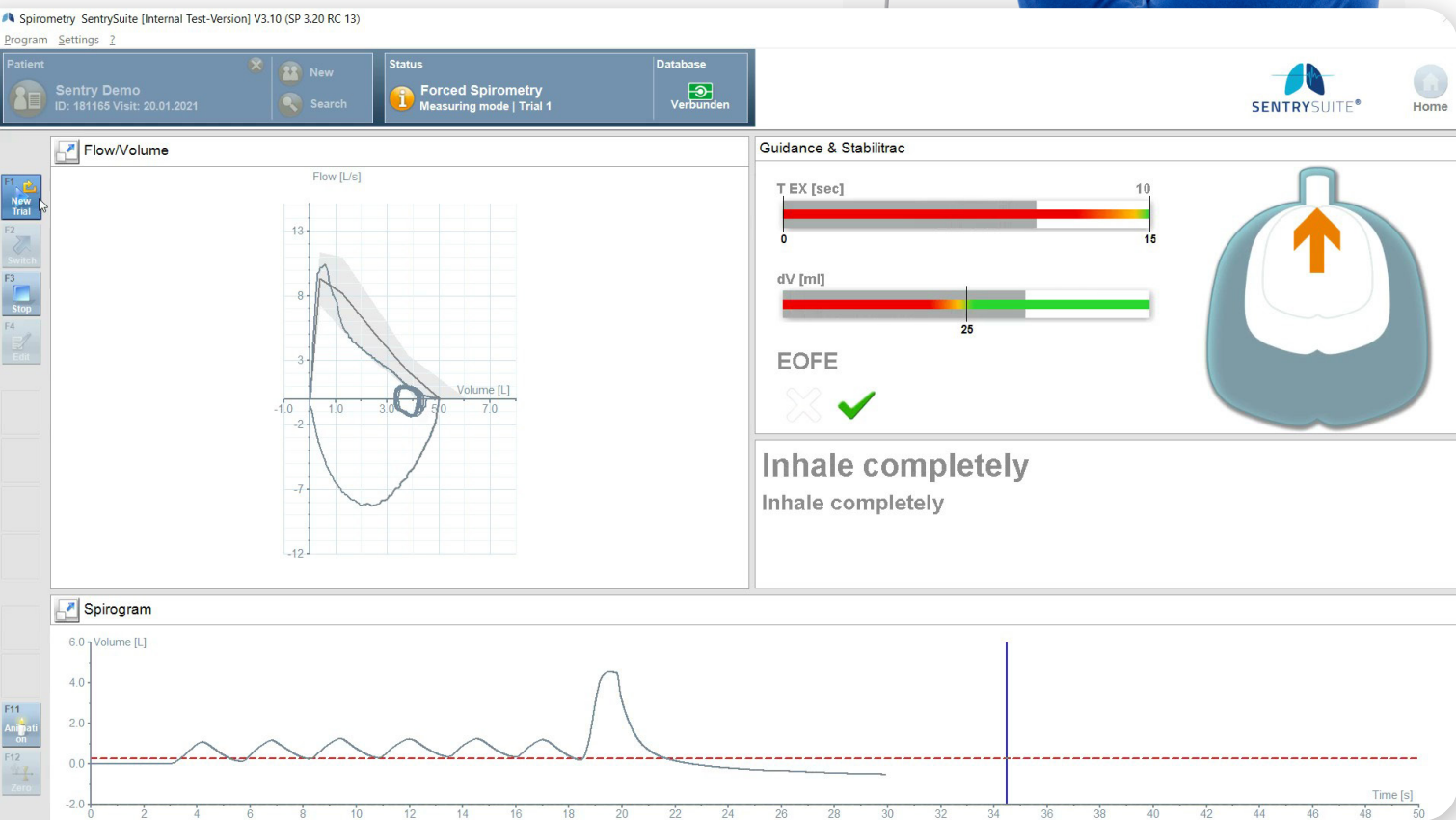
Want an even easier solution?

Simply dispose of the old sensor and replace it with a new pneumotach from our cost-effective sensor kit.

Data collection made easy and complete

SentrySuite™ is designed to take the ATS/ERS 2019 standards for data collection and present them in a user friendly format, allowing you to focus more on the patient.

Uncluttered, simplified, and bold **visual** and **audio cues** contribute to optimizing data collection including single beep when plateau is reached and double beep at 15 seconds exhalation.

10 user-definable animations

Experienced technicians can adjust animation difficulty based on patient needs.
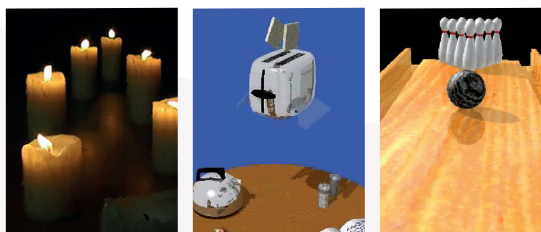
Clear-cut results review

SentrySuite™ is designed with tools to support the novice user while maintaining flexibility for advanced users.

Clearly view **per trial quality feedback**

	%Chg...	Pred	Pred LL	Best	%(Best/Pred)	Tr 1	Tr 2	Tr 3	Tr 4	Tr 5
Q FVC A19				✔✔		✔✔	✔✔	✐✔	✔✔	
Q FEV1 A19				✔✔		✔✔	✔✔	✗	✔✔	

✔✔ acceptable   ✔ usable   ✗ neither acceptable or usable   ✐ edited result

	Quality	Auto Interpretation	Interpretation/Comments

Type of quality check-ATS and ERS 2019

Quality of trial	Tr 1	Tr 2	Tr 3	Tr 4	Tr 5	Tr 6	Tr 7	Tr 8	Tr 9	Tr 10
Volume of back-extrapolation too large.			●							
No EOFE criteria found.			●							
Difference VC IN-FVC too large			●							

Integrated **visit quality grading** according to ATS/ERS

Quality Grade FVC ATS 2019

A   B   C   D   E   U   F

Quality Grade FEV1 ATS 2019

A   B   C   D   E   U   F

	Best
Quality	
Grade FVC A19	A
Grade FEV1 A19	A

Editing data for advanced users

SentrySuite™ will automatically pick the best loop and data according to ATS/ERS standards. Clinicians can easily override and edit the best selection in SentrySuite™.

Edit mode tabular data

		%Chg...	Pred	Pred LL	Best	%(Best/Pred)	✔✔ Tr	✔✔ Tr	✔✔ Tr	✔✔ Tr	
Best Ex/In											
Q FVC A19							✗✔✔	✗✔✔	✗✔✔	✗✔✔	
Q FEV1 A19							✗✔✔	✗✔✔	✗✔✔	✗✔✔	
FVC	L	0	5.08	4.08	5.63	111	5.59	5.60	4.37	5.63	

SentrySuite™ Edit Mode for forced spirometry with the possibilities to hide/unhide trials (in and ex separated), to select best curve (in and ex separated) and to edit the acceptability criteria for FVC and FEV1.

Reporting and data management

Use our robust report library or make your own with Report Designer.

Harness the power of AI in a single click with our optional ArtiQ.PFT solution

- Identify patterns and degree of altered lung physiology in seconds according to 2021 ATS/ERS technical standards[4]
- Improve accuracy while increasing lab efficiency

Complete reference library

including the latest GLI reference equations, both race adjusted and race neutral.

Bronchial Challenge Testing Software is included!

Includes protocols that meet the latest standards, or create you own.

Vyntus™ SPIRO technical specifications

Flow measurement	
Type	High-quality pneumotach
Range	0.1 to ± 16 L/s
Resolution	1 mL/s
Accuracy	0.1 to 14 L/s: ± 5% of reading or 0.2 L/s, whichever is greater
Resistance	< 0.05 kPa/L/s (0.51 cmH2O/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: ± 3% of reading or 0.05 L, whichever is greater

Ambient conditions	
Temperature	+10 °C to +34 °C (+50 °F to 93.2 °F)
Relative humidity	20 to 80 % RH, non-condensing
Ambient pressure	700 to 1060 hPa (525 to 795 mmHg)
Altitude	≤ 3000 m

Power supply	
Mains voltage	5 V DC via USB

Classification of applied parts	
Type applied part	B

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

Standards, directives and market clearances	
Standards	EN 60601-1, EN 60601-1-2, EN 62304, EN 62366-1, 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

Optional Cart	
Dimensions total	22 in W x 24 in D x 49 in H
Weight total	32.6 kg (72 lbs)
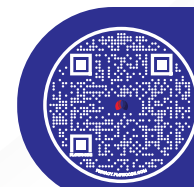
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REFERENCES

1. Based on Vyntus™ series with pneumotach sensor technology; International Organization for Standardization (ISO) 26782 dynamic waveform test results, 2022.

2. Graham B, Steenbruggen I, Miller M, et al. Standardization of spirometry 2019 update. An official american thoracic society and european respiratory society technical statement. Am J Respir Crit Care Med. 2019; 200:e70-e88.

3. Based on the Bio Burden DIN EN ISO 11737-1: Repor t 18AA0193.

4. Stanojevic S, Kaminsky DA, Miller M, et al. ERS/ATS technical standard on interpretive strategies for routine lung function tests. Eur Respir J 2021; in press (https://doi.org/10.1183/13993003.01499-2021).

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