

# RESMON PRO FULL



ENCOURAGE ADOPTION  
FOR BETTER RESPIRATORY DIAGNOSIS

MAKE  
OSCILLOMETRY  
ROUTINE

RESTECH

pt   
medical  
**RES**TECH  
*As simple as breathing*



## ACCURATE AND NON-INVASIVE

**RESMON PRO FULL** utilizes oscillometry (also known as forced oscillation technique or FOT) to accurately and non-invasively measure the mechanical properties of the respiratory system using just a few normal tidal breaths.

This advanced technology offers a simple and effort-independent method to detect and localize airway obstruction, allowing differentiation between peripheral, central, or heterogeneous types.

## VERSATILITY FOR ALL PATIENTS

The versatility of **RESMON PRO FULL** extends to a variety of testing environments, from pulmonary laboratories to bedside assessments, private offices, and sites for clinical trials or research studies.

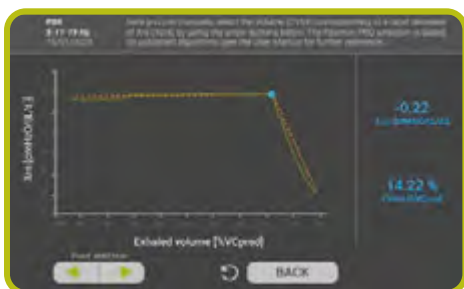
Whether dealing with COPD, adult and pediatric asthma, or assessing the effectiveness of airway clearance techniques in physiotherapy, **RESMON PRO FULL** is the go-to solution for physicians seeking better diagnosis and staying on the cutting edge of innovation.

## ADVANCED FEATURES FOR ENHANCED PERFORMANCE

**RESMON PRO FULL** is equipped with advanced calculation algorithms based on the latest scientific research and clinical findings, ensuring exceptional performance.

By integrating respiratory physiology with state-of-the-art technology, **RESMON PRO FULL** introduces a range of new advanced parameters that combine oscillometry and static lung volume measurements, such as closing volume (CV<sub>fo</sub>), critical reactance (X<sub>crit</sub>), and oscillometric airway conductance (sGr<sub>s</sub>). This comprehensive set of measurements enhances the physician's ability to detect diseases, even in their earliest stages, and effectively monitor the impact of therapeutic interventions on disease progression.

The **RESMON CART** (REF.: RT1106), a medical cart specifically optimized for **RESMON PRO FULL**, enhances the portability of the device, enabling easy transport and facilitating testing at the bedside or in the lab.



## DYNAMIC “WITHIN-BREATH” TESTING

- Real-time display of resistance (Rrs), reactance (Xrs) and flow or volume (user selectable)
- Measurement of inspiratory, expiratory and total Rrs and Xrs parameters
- Spectral analysis with the calculation of R5-19, AX and Fres
- Automatic detection and quantification of tidal expiratory flow limitation (EFLt) with  $\Delta Xrs$  index graph and % of flow limited breaths (FL%), (patent nr. wo2003103493)
- Full respiratory pattern measurement and reporting of VE, VT, RR, Ti/Ttot, Vt/Ti, Vt/Te
- Customizable tidal loops graphs (available signals: Flow, Volume, Resistance, Reactance and Impedance)

## SLOW VITAL CAPACITY TESTING

- SVC for monitoring of restrictive patterns
- IC for hyperinflation detection, pre-post testing for evaluating effect treatment
- Closing volume (CV<sub>tot</sub>) and critical reactance (X<sub>crit</sub>) for the evaluation of de-recruitment of peripheral airways
- Specific airway conductance (sGrs) for the evaluation of therapeutic intervention compensated for changes in lung volumes

## THREE MEASUREMENT MODES

- Enhanced and optimized multi-frequency mode of 5-11-19 Hz, from children to adults
- Single-frequency mode options of 5, 6, 8, 10 Hz (for children, severely obstructed patients and special research purposes)
- Enhanced and optimized Pseudo Random Noise (PSN) of 5-37 Hz

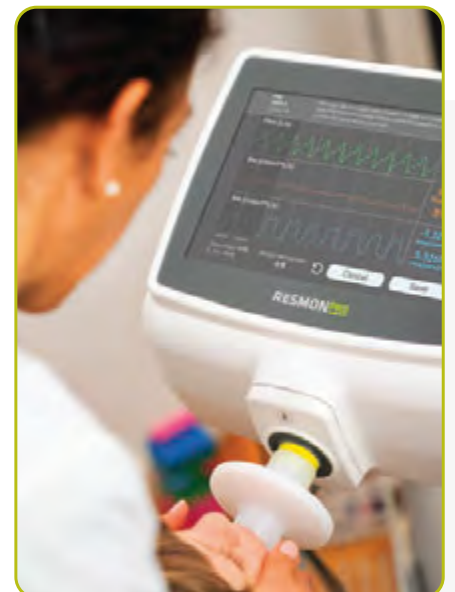
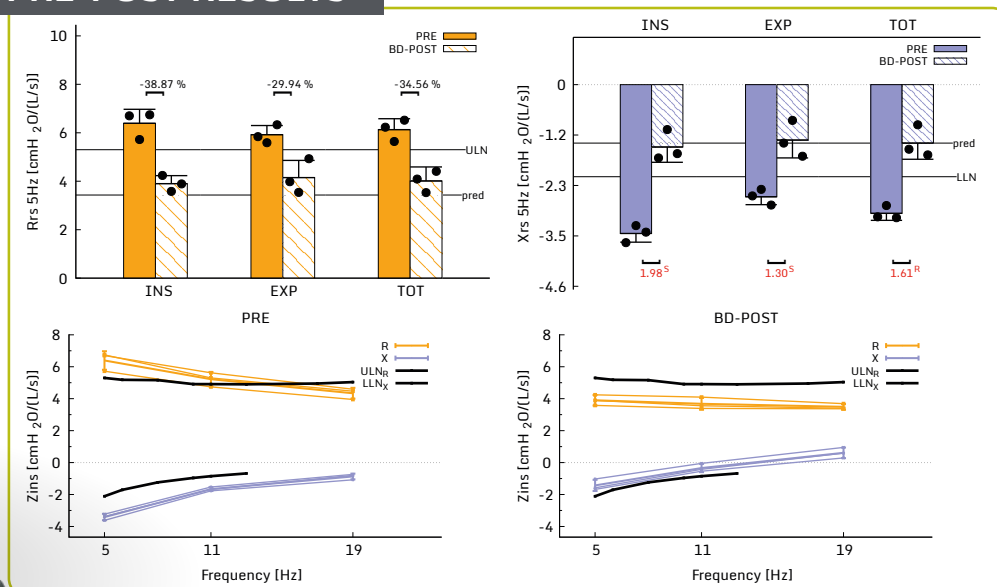
## ENHANCED COMFORT AND TESTING EFFICIENCY

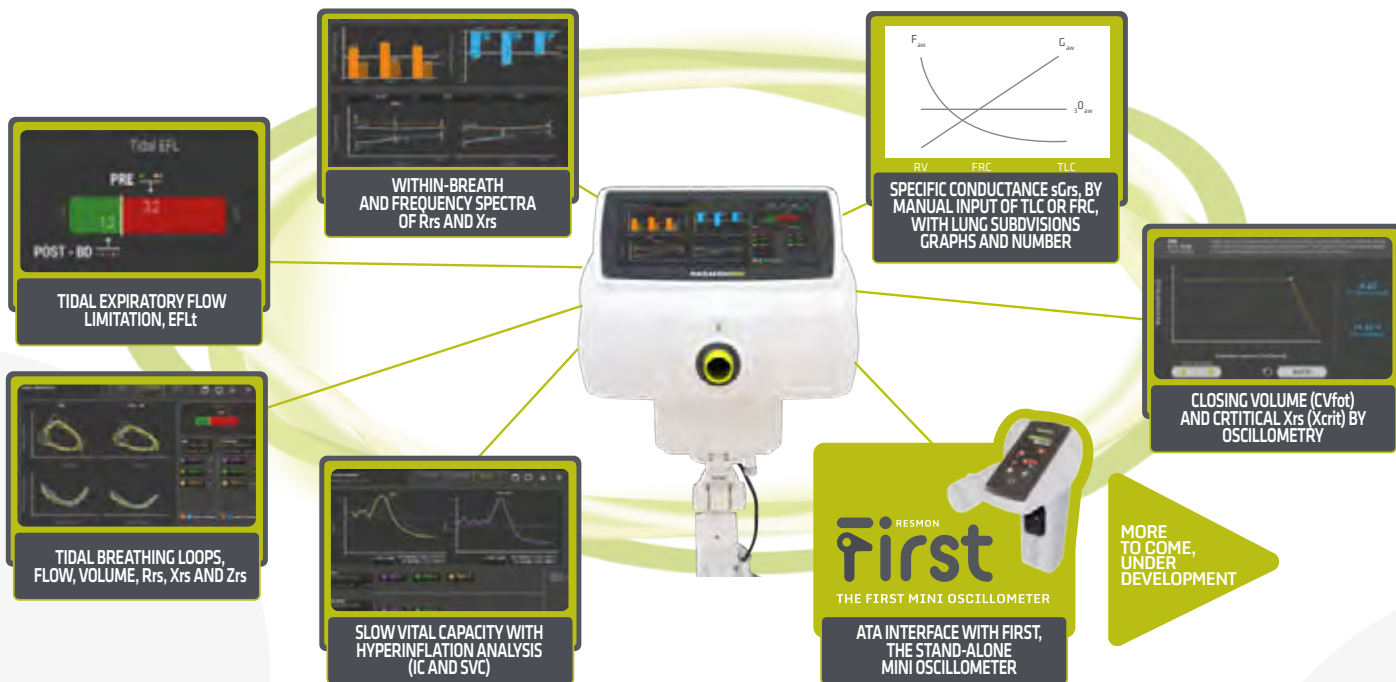
- Automatic adjustment of stimulus amplitude based on patient impedance to maximize measurement quality and optimal patient comfort
- Efficient testing with automatic discard of breaths affected by artifacts (i.e. cough, glottis closure, etc) and choice of number of accepted breaths, or time to end the test automatically, minimizing operator intervention
- CoV % (coefficient of variability) within-measurement and within-session with color coded warning, for optimal quality control
- Operator accessible screen, post-test, to review and edit breaths to include into the calculation of the results
- User selectable sets of reference equations for predicted normal value and Z-score calculation

## CONVENIENT SIZE AND FUNCTIONS

- Self-contained and compact unit with data transfer capability on USB memory stick, directly to PCs via USB-OTG or LAN cable
- Connectivity options, USB and HDMI ports, with external keyboard, mouse, screen or projector
- Active-wash fan for expired CO<sub>2</sub> removal from the system reducing system dead space to 35 mL
- Unique impedance verification tube included, to daily check the accuracy of both resistance (Rrs) and reactance (Xrs)
- Wide 10.1” color touchscreen for fast, easy and intuitive test management
- Built-in database to store, retrieve, edit or delete patient data
- Multi-user access with password protected data security
- Detailed report of results for trending, analysis and statistics. Data available in raw format, XSL/CSV and PDF output as well as export to external PC (via USB-OTG or LAN cable for safe transfer connection and data protection)

## PRE-POST RESULTS





## TECHNICAL SPECIFICATIONS

Flow sensor	Range	$\pm 2.0$ l/s
Metal mesh	Linearity	< 2% in the range $\pm 1.5$ l/s
Pressure	Range	25 cm H <sub>2</sub> O
	Linearity	0.05% FS
Physical Dimensions	Height: 31 cm (12.2 in) Width: 29 cm (11.4 in) Depth: 26 cm (10.2 in)	
Weight	6.4 kg (14.7 lbs) with support arm. Device only 4.3 Kg (9.4 lbs)	
Testing signal mode	Single frequency: 5, 6, 8, 10 Hz	
	Enhanced and optimized multiple frequency: 5 + 11 + 19 Hz	
	Pseudo random noise (PSRN): 5-37 Hz	
Measurement accuracy	For impedance parameters: $\leq \pm 0.1$ cm H <sub>2</sub> O/(l/s) or $\leq \pm 10\%$ of the measured value	
	For breathing pattern parameters: $\leq 10\%$ of the measured value	
	For volume parameters: $\leq \pm 100$ ml or $\leq \pm 3.5\%$ of the measured value	
	Environmental conditions: Temperature: $\pm 1^\circ\text{C}$   Humidity: $\pm 3\%$ (Relative Humidity)   Pressure: $\pm 100$ Pa	
Calibration	Factory calibration according to international recommendations ERS (Eur Respir J. 2020;55(2):1900753). Daily calibration check with a test object (supplied with the device) and 3L calibration syringe (optional not supplied with the device), required for the measurement of slow spirometry volumes, closing volumes and airways specific conductance	
Patient Load	0.55-0.69 cm H <sub>2</sub> O/L/s in the frequencies of normal breathing (0.1-1 Hz)	
Dead Space	35 ml	
Display	10.1" HD color display with multi-touch capacitive touchscreen and anti-glare film (can be used with medical gloves)	
Electrical Specifications	Medical grade 100/240 V, 50/60 Hz 60 W input AC/15 VDC output power supply (included)	

Model: RESMON PRO FULL (REF: RT1100)



Exclusief gedistributeerd door:

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Publications: The RESMON PRO FULL has been used in a wide selection of publications for clinical and research uses in asthma, COPD and evaluation of airways clearance therapies. Updated list available upon request.

