

RHINO-SYS



Rhinomanometry
Rhinoresistometry
Acoustic Rhinometry
Longtime-Rhinoflowmetry



otopront®

RHINO-SYS

System for functional diagnosis of nasal breathing

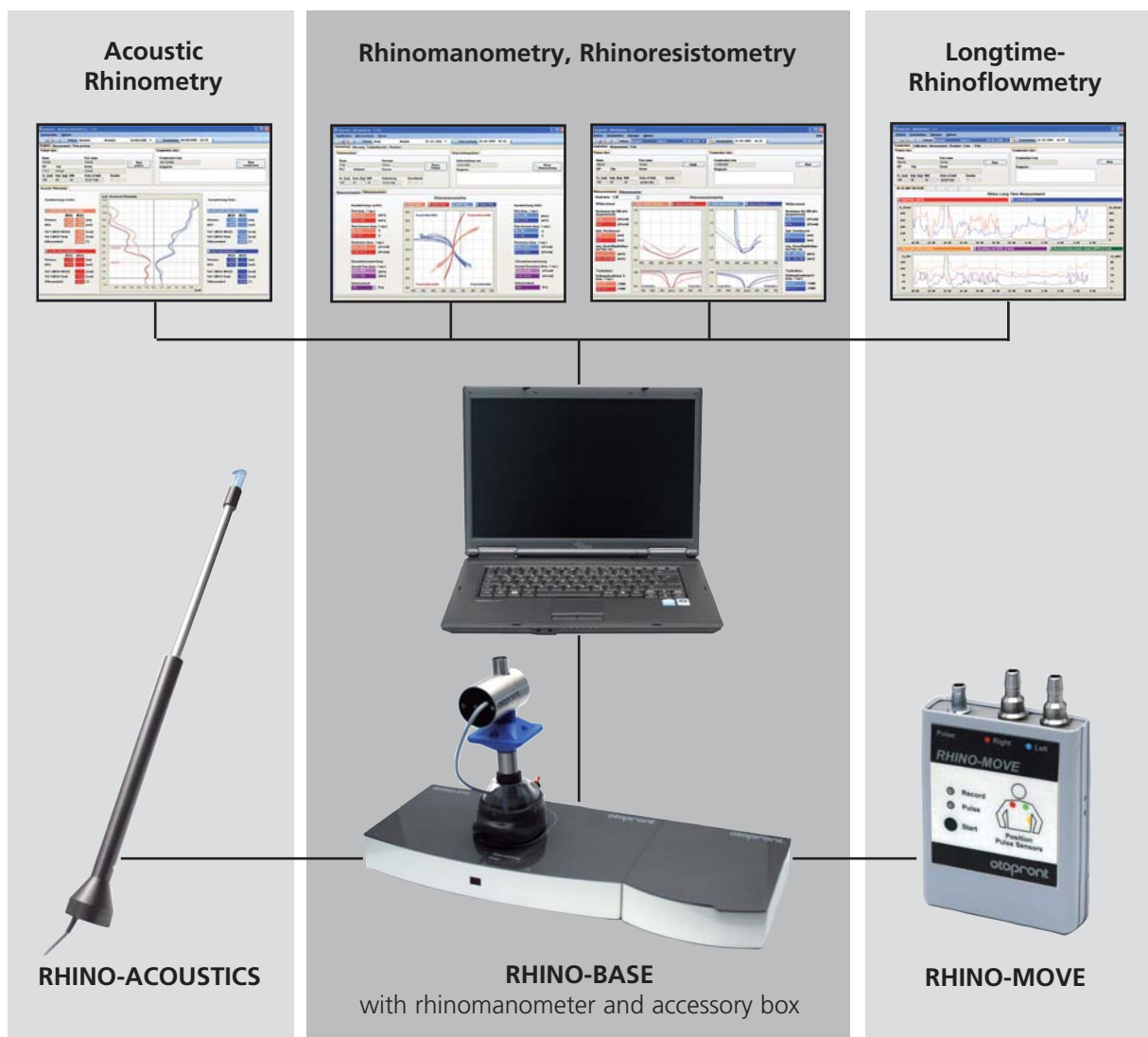
The key element of the Otopront RHINO-SYS is the **Rhinoresistometry**, a further development of active anterior Rhinomanometry.

Hardware

The otopront hardware consists of the RHINO-BASE central unit including laptop, the RHINO-ACOUSTIC system for portraying the cross-sectional profile of the nasal cavities and the mobile RHINO-MOVE device for 24-hour recording of nasal breathing.

Software

The otopront software provides various display options for precise diagnosis and for straightforward analysis of measurement data. Measurement results and recorded patient data can be stored in the internal data bank and swiftly called up as needed.



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Rhinomanometry, Rhinoresistometry

The Otopront RHINO-BASE offers as a key element the **Rhinoresistometry**, a further development of active anterior Rhinomanometry.

Nasal flow rate is measured using a breathing mask. The filter between measuring nozzles and face mask is replaceable. Choanal pressure is measured using an adhesive nasal adapter. An additional benefit is that the micro pressure sensors can be connected directly to the breathing mask, thus minimizing measurement errors.

Nasal flow resistance can be objectified reproducibly using Prof. G. Mlynski's highly complex analytical software which has been developed and improved over many years. This is the basis for differential diagnosis of possible causes of nasal obstruction like constriction, inspiratory nasal wing collapse or pathological turbulence.



Rhinoresistometry, Rhinomanometry software



RHINO-BASE central with accessory box, rhinomanometer with filter and face mask

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Acoustic Rhinometry

The Otopront RHINO-ACOUSTIC is a powerful instrument for measuring the nose airways. It uses an acoustic impulse to measure the cross-sectional areas over the distance from the outer nostril. These cross-sectional areas let an examiner know whether or not there are narrow points in the airways which can be a problem for a patient's respiration. It is easily applied, reliable, non-invasive and well accepted by patients. Even assessment of children is performed without problems.

The RHINO-ACOUSTIC measurement system consists of the measuring software and the RHINO-BASE central which contains the data acquisition hardware for the measuring purposes. Additional items are the acoustic measuring probe, a long calibration pipe and the nose adapters.



Acoustic Rhinometry software



RHINO-ACOUSTICS measuring probe

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Longtime-Rhinoflowmetry

Rhinomanometry, Rhinoresitometry and Rhinoacoustics are limited to assess the nasal airway only in a short period of time in which the measurement is performed. Many patients report about functional complaints at various time periods. In consequence, a diagnostic tool to gain more insight into the respiratory function during conditions of normal life is necessary.

The Otopront RHINO-MOVE, a portable measuring system, enables breathing to be registered over a 24-hour period, with separate records for each side of the nose. The synchronic registration of the heart frequency enables an evaluation of the physical strain. Once measuring is complete, the saved data are transferred to a laptop and analysed with otopront's RHINO-SYS software. Thus, for the first time, the nasal cycle and its disturbance can be recorded under a patient's normal daily conditions.

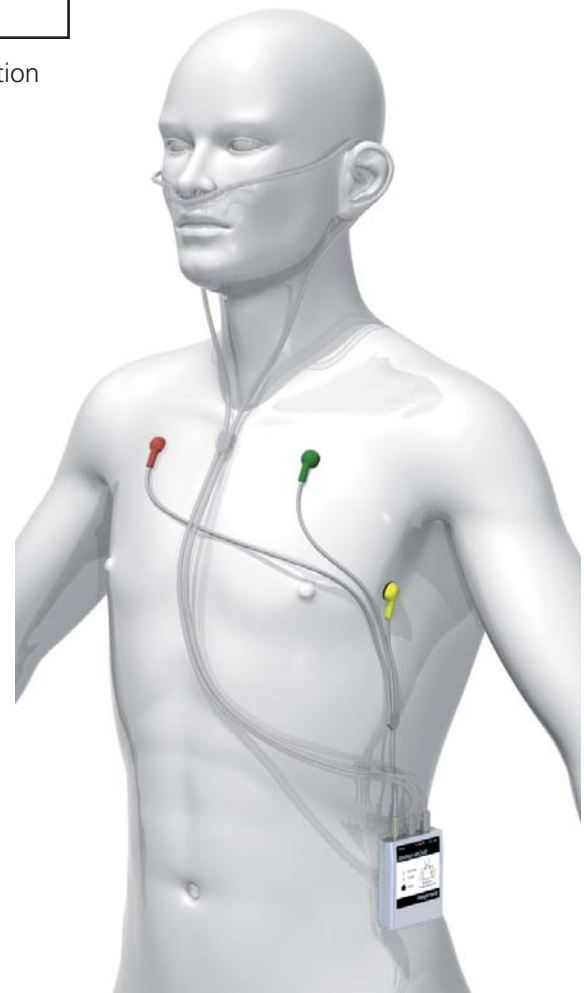


RHINO-BASE docking station for RHINO-MOVE

Longtime-Rhinoflowmetry software



RHINO-MOVE Longtime-Rhinoflowmetry unit with clothes clip



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Accessories

The Otopront RHINO-BASE accessory box contains all materials to prepare the rhinomanometer for Rhinomanometry and Rhinoresistometry. It helps to adapt the pressure hose of the rhinomanometer easy and quick to the patients nostril. The box also contains additional compartments for Acoustic Rhinometry nose adapters. This functional box is a part of the RHINO-BASE central.



RHINO-BASE accessory box



Trolley

The Otopront RHINO-CART is the ideal supplement to the RHINO-SYS. It contains a laptop tray with mousepad pullout, a mouse holder, trays for the RHINO-BASE central with accessory box, a big drawer for filters, face masks and hoses, a holder for the RHINO-ACOUSTICS, a tray for printers and an integrated cable channel. The RHINO-CART is mobile on castors.

Technical Data

Power supply	110 - 240 V , 50/60 Hz
Power consumption	15 VA
Dimensions	70 x 370 x 200 mm (H x W x D)
Weight	4 kg
Measuring method	Fleisch flow-head, pneumotachograph
Protection class	class I equipment
Medical device classification	class II a in accordance with MDD 93/42/EEC
Applied part type	BF
IP classification	IP X0

All designs and specifications subject to change without notice.



RHINO-CART with RHINO-SYS and RHINO-ACOUSTICS

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