Some of the Powerful Performance Features are:

- High-end database for storing patient and test data
- Data transfer from external systems, such as administration systems and blood gas analysers
- Relevant data can be viewed and edited at every workstation
- Trend analysis within seconds
- Integrated data security and data protection
- Reliable, favourably priced and innovative platform

Precise you can benefit from!

- High-quality measurements with fully automated quality control according to ISO 9001. MasterScreen IOS complies with the regulations of the European (Medical Device Directive) and American (FDA) law.

Determination of Respiratory Impedance by Impulse Oscillometry

System for determining complex respiratory impedance of the lung-thorax system including:
- Average values of respiratory impedance (resistance and reactance)
- Easy-to-understand graphic model-based interpretation including proximal and distal respiratory parameters
- Results by breath analysis by differentiation of volume and flow interdependency of respiratory impedance
- Show and format oscillometry (respiratory and expiratory flow-volume curve and Tiffeneau test)

Technical data

- Flow measurement JAEGER pneumotach, heated
  Range: 0 - 20 l/s
  Accuracy: 0.2 - 12.5 %
- Resistance: 0.05 Pa/(l/s) at 50 Hz
- Common mode: 70 dB at 50 Hz
- Rejection ratio (CMRR): 60 dB at 50 Hz
- Common mode: 70 dB at 35 Hz
- Resistance: <0.05 kPa/(l/s) at 10l/s
- Accuracy: 0.2 - 12 l/s ±2%
- Range: 0 - 20 l/s
- Accuracy: better than ±2 %
- Test signal: impulse
- Pulse interval: 0.1 - 6 s
- Impulse length: 45 ms
- Frequency range: 0 - 100 Hz
- Power spectrum: 0 dB at 40 Hz
- Calibration: CAL-Pack, automatic
- Reference impedance: 0.24 kPa/s

Oscillometric parameters:
- Z1 = Magnitude of respiratory impedance
- ZS = Total respiratory resistance
- ZB = Proximal respiratory resistance
- ZD = Distal respiratory resistance
- ZP = Respiratory reactance

Frequency, Flow-VOLUME
- VE, BE, VE0, BFE, IC, IRV, VT, Vco, Vmin, ...
- PVC, FV, PEF, PEFR, MEF, MEF25, MEF50, MEF75, ...

Component:
- Computer, printer and monitor, optionally as trolley or as portable notebook version
- Headset pneumotach
-肺头包括雾化器，呼气和吸气持续时间
- Reference impedances for calibration
- Complete recording and analysis software including powerful data management features and calibration program

Reliable Platform - Powerful Network.

IOS runs under Windows 95/98 or Windows NT and can be integrated in the proven JAEGER LAB system.

Follow the Impulse.

MasterScreen IOS

Low-cost determination of Respiratory Impedance by Impulse Oscillometry

Differentiation between proximal and distal obstruction

Graphic model-based interpretation

Flow-Volume measurement

Sensitive determination of bronchial hyperreactivity

Especially suited for paediatric applications

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Impulse Oscillometry (IOS) - Quick, Precise, Independent of Cooperation

High-End Impulse Oscillometry.

Early diagnosis and screening require an objective and sensitive method that is easily performed, and is independent of patient cooperation. MasterScreen IOS allows you to determine Respiratory Impedance without any technical expenditure and provides precise results for differential diagnosis, even outside hospital or practice. The system is especially suited for use in paediatrics, geriatrics and occupational medicine because a few normal breaths are required for a complete test. The automatic interpretation on the basis of a graphic lung model sets a new standard in medicine because a few normal breaths are required for a complete test. The automatic interpretation on the basis of a graphic lung model sets a new standard in medicine.

Precise Differentiation of Breathing Mechanics.

MasterScreen IOS differentiates between proximal and distal components of the respiratory tract. This important feature allows early detection of pathological impairments of the so-called small airways. Additionally, the effect of drugs or medication in different sites of the lung can be determined.

Practical and Scientific - Convincing in Every Respect.

The informative graphic display of the respiratory obstruction on the basis of a lung-thorax model is user-friendly. Researchers will be convinced by the comprehensive spectrum of analytically relevant parameters. The relevant recording parameters will be output graphically and numerically, so that the quality of the test can be assessed already during recording. Artefacts will be detected immediately. And last but not least, MasterScreen IOS is fast. Within less than one minute, the system provides exact and reliable results.

The advantages at a glance:
- Quick and low-cost noninvasive determination of respiratory impedance with low technical expenditure
- Differential between proximal (central airways) and distal (peripheral airways) components of pulmonary obstruction
- Sensitive detection and differentiation of extrathoracic changes in the respiratory tract
- New method for differentiation between trapped air or respiratory collapse and obstruction
- Airway impedance via complete VC-manoeuvre allows to answer further clinical questions
- The recorded parameters provide valuable information for early diagnosis of pulmonary diseases
- Graphic interpretation of the results on the basis of a lung-thorax model
- Differentiation of bronchial hyperreactivity of both provocation and spasmolysis independent of cooperation (also in combination with spirometry measurement)
- Determination of static (VC, V50, V25) and dynamic (PVC, F50, MEF50) lung volumes by the proven spirometry flow-volume measuring program
- Almost independent of cooperation and therefore especially suited for use in paediatrics, geriatrics, occupational medicine as well as special applications
- No costs due to disposables
- Portable when used with a notebook computer
- Specific information in combination with spirometry and Diffusion, even with bodyplethysmography
- Internationally standardized method for pulmonary function testing

For outpatient application MasterScreen IOS can also be used in combination with a notebook computer. Installation only takes a few minutes and respiratory impedance can be measured wherever and whenever you want.

Inside

Add an APS nebular head adapter to the IOS to perform provocation measurements. The precise APS system provides a stable nebular performance, precise dosage and optimal drug absorption with precise-controlled inhalation. A flexible observation program controls the test sequence and stops the test sequence and stops the test sequence and supports trend control and assessment.

Special Masks for Children

Lung function measurements in children aged 2 to 4 years are especially difficult as the little patients are often not able to close their lips firmly around a standard mouthpiece. Nebulizers are often not accepted. The special masks for children with integrated mouthpieces are available in different sizes and allow for a precise measurement in children.