

# vision for voice

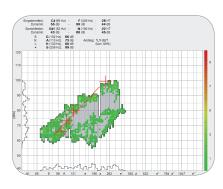
Digital Workstations for Swallowing (FEES) and Stroboscopy



Workstations for Swallowing (FEES) diagnostics and Phoniatrics



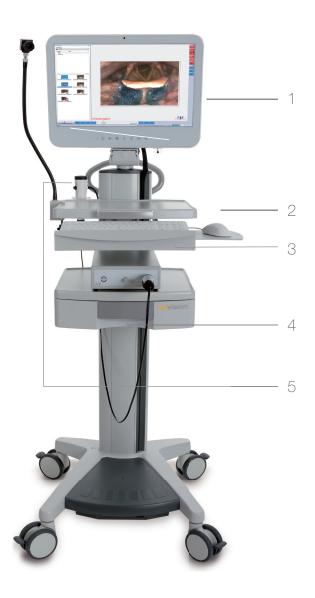




# Digital Workstations for Swallowing and Stroboscopy

With the orlvision workstations you will find always the right system for your diagnostic environment. Orlvision offers portable workstations for bedside examinations, up to a versatile HD System.





# **Basic system**

- 1 Medical Panel PC with rpSzene Basic
- 2 Medical Keyboard incl. mouse
- 3 LED Lightsource
- 4 Trolley
- 5 RS1 CCD Video Rhino Laryngosscope

The rpSzene Basic Software is an easy to use live video and recording system for ENT offices that allows to organize the patient files on the harddisk of the PC. The HD touch panel PC delivers clear images that you don't miss any details of the finding.

# Fees system

- 1 Medical Panel PC with rpSzene 10.0
- 2 Medical Keyboard incl. mouse
- 3 LED Lightsource
- 4 Trolley
- 5 RS1 CCD Video Rhino Laryngosscope

The rpSzene 10.0 Medical database is a professional video and audio documentaion system to finalize reports with the ability to analyze and edit the stored videos and images. Together with the phonetogram and Picture in Picture you could share theresults with the consulting function.

Ready to upgrade for stroboscopy!

# Digital Workstations for Swallowing and Stroboscopy

The orlvision workstations are fully integrated and easy to use high performance endoscopic systems with the possibility to integrate into clinical infrastructure.





# Stroboscopic system

- 1 Medical Panel PC with rpSzene 10.0
- 2 Medical Keyboard incl. mouse
- 3 LED Stroboscope
- 4 Trollev
- 5 RS1 CCD Video Rhino Laryngosscope

The rpSzene 10.0 Medical database together with the Stroboscopic module alllows detailed voice analyzing with WLQ measurement, spectrogram and phonetogram. That professional and portable stroboscopic system is the right choice for daily clinical use and could be integrated into your infrastructure.

#### **HD Workstation**

- 1 Medical TFT display
- 2 HD Laryngoscope
- 3 Medical Keyboard incl. mouse
- 4 Trolley
- 5 LED Stroboscope
- 6 HD camera
- 7 High Performance Medical PC with rpSzene 10.0

The HD workstation is the all in one High Definition System for Phoniatrics. The rpSzene 10.0 and its functionality is the must for any HD image analyzing and reporting.

# **Applications - Dysphagia Diagnostics**

#### Dysphagie Diagnostics with rpSzene

rpSzene is the flexible system solution for the digital flexible endoscopic evaluation of swallowing (FEES) and offers a reliable and individually configurable documentation and evaluation platform.

In addition to classic fibre optics, rpSzene system also allow to be operated with purely digital video rhinolaryngoscopes.

Due to unique performance capabilities, intuitive operation, comprehensive personalization options and the maximum in data security, rpSzene has set new benchmarks and become the market leader in the field of video-based swallowing diagnostics.

#### Recording video sequences

Simple recording of video sequences with sound or single-frames by mouse click, foot switch or button on the camera head.

Full-screen display with on-screen keys during the examination.

It is optionally possible to use a second camera to record the patient externally. The external view is displayed as Picture-in-Picture inside endoscopic image. Preset options support various lenses or camera systems.

#### Playback and post-processing video sequences

The user-intuitive post-processing menu facilitates the examination of film sequences on a precise single-frame basis, as well as the deletion of unnecessary parts of the video sequence and the insertion of titles. It is possible to measure single frames and save these separately.

When playing recorded video sequences back, it is possible to steplessly control the image size and playback speed.

Extensive importance has been placed on precise frame work and lip-synchronous audio reproduction and playback.

## Finalizing medical reports

The rpSzene medical report module is internationally unique and ground-breaking due to its individual report templates and variables, which can be fully tailored to your requirements and working methods. It is possible to log initial comments during the examination and with the subsequent evaluation, which can be subsequently transferred to the medical report automatically.

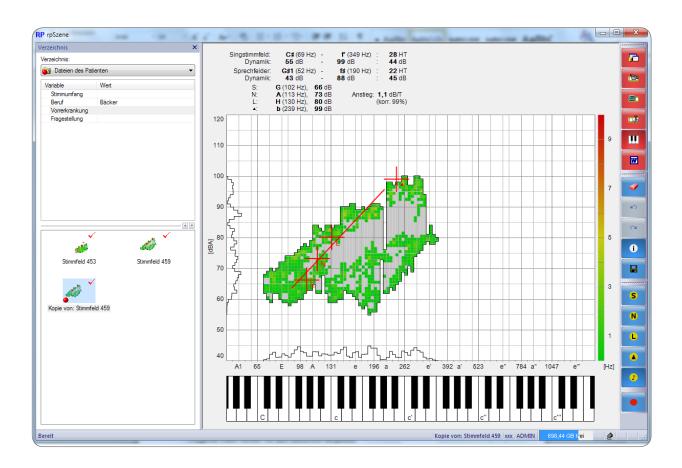
The transfer of patient data, variables and comments to your personal report template takes place fully automatically. It is possible to insert selected images by dragging and dropping. It is also possible to export selected data to Microsoft Excel for the acquisition of statistics.

# **Applications - Dysphagia Diagnostics**

#### Phonetogram

The phonetogram permits measurement and documentation of the pitch and scale of a patient's voice. This can be used for recording progress in treatment, for example. Phonetograms are saved directly under the patient's name in the rpSzene© data base.

In order to create an extensive phonetogram, five recording modes including singing, speaking or shouting phonetograms can be run through successively.



#### The phonetogram depicts the following data:

- Loudness / Sound pressure in dBA, pitch in semitone steps as well as the duration of phonation as a colour range
- Phonetogram instruments, scope and dynamism
- Slope in voice range profiles
- Standard phonetogram for men and women
- Support in the form of a practical piano keyboard
- Histogram for loudness and pitch

#### **Devices**

#### **LED Stroboscope**



- · High intensity LED Stroboscope
- · Low Noise, low heat conduction
- · Special Algorhythm for sharp an clear images
- · Foot switch
- · Throat microphone

#### Videokymograph Ultra High-speed Imaging for Vocal-fold Vibration





- · Simultaneous structural and functional imaging
- Split image into two parts:
   left side shows the laryngoscopic image
   right side shows the kymographic
- 7200 line images per second sufficient speed to investigate all types of regular and irregular vocal-fold vibrations

#### orILED 1000 High Intensity Lightsource



- · Low noise, low heat conduction
- · Electronical light control via buttons
- · Pure daylight quality
- · Waterproof touch control panel

#### orlcam SD Endoscopic Video Camera 1CCD



- · Natural colour reproduction
- Single chip
- · Anti-moiree-filter
- · High image quality

#### orlcam HD High Definition Camera 3CCD



- Full HD resolution
- · High speed shutter
- · Multilingual menu
- · Remote camera head

# **Applications - ENT- Phoniatrics**

#### Spectrogram

Through this additional function a spectrogram is displayed in video post-processing mode beneath the audio track, in which the audio signal is broken down into its individual frequencies. It is possible to adjust the configuration of the display colours.

Lip-synchronous reproduction During the development of rpSzene particular importance was placed on ensuring that the image and sound are always synchronous and reproduced precisely, just as they were recorded. Hz/dB display rpSzene facilitates measurement of the frequency and volume during the examination, and the incorporation of these values into the live video.



Amplitude / length quotient The oscillation amplitude of the vocal folds plays an important role when assessing functional vocal disorders. However, when deciding whether the oscillation amplitude is normal, too high or too low, it is also necessary to consider this in relation to the length of the glottis. The length and oscillation amplitude of the glottis can now be used to determine the amplitude / length quotient, with which it is possible to determine the correct measure for assessing the oscillation amplitude of the vocal folds. Specifically for the purpose of phoniatrics, the rpSzene – WLQ module offers the possibility of measuring the two values from a selected image during film post-processing and determining the quotients.

## The extendable modular System

Upgrade the orlvsion workstations in the most versatile way. Configure your system in respect of the budget and upgrade it later for more functionality.

Combine the Swallowing (Fees) workstation with a LED stroboscope and the specific software modules to use for all ENT applications. Ask our sales consultants to find the perfect solution for your needs.

# Made in Germany orlyision is a specialized manufacturer of high-performance, user-friendly medical endoscopic systems. We have been developing and manufacturing experience for more than 20 years. We strive to offer entimal

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