



Straightforward
Vestibular testing

HORTMANN Vestlab 100



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User-friendly vestibular testing

In collaboration with medical practitioners, HORTMANN started as pioneers in the development of groundbreaking techniques for vestibular diagnostics more than 35 years ago. The new HORTMANN Vestlab 100 is the latest addition to our well-known vestibular test systems. A product of years of experience and close collaboration with a leading balance expert, the HORTMANN Vestlab 100 is a powerful combination of software and hardware to ensure optimum performance and the most accurate test results.

Sleek and portable

The new HORTMANN Vestlab 100 is a user-friendly solution for the professional evaluation of balance. This compact Videonystagmography (VNG)

system connects to the computer via USB, and it provides the required test battery for diagnosing a wide range of balance and vestibular disorders. A number of time-saving features optimize the clinical workflow by enabling nurses or assistants to take part in the diagnostic process, leaving doctors with more time to interpret results and treat patients.

Advantages of VNG

VNG directly records and measures the eye movements, and has the following advantages:

- Ability to see the patient's eyes at all times
- No drift in the tracings
- Reduction of disposable supply cost



HORTMANN Vestlab 100

- Stylish and portable diagnostic system with USB connection to the computer
- Easy-access foot switch allows patient data collection while staying close to your patient
- Lightweight and comfortable full-shield goggles with built-in fixation light
- Proven eye-tracking algorithm eliminates errors due to eye blinks
- Auto-adjust through one-click video adjustments
- View of eye movement during the entire test
- Diagnostic test battery includes history, clinics, gaze, position, positioning, calorics and further tests
- Choose from the library of test protocols or create your own custom tests

Designed by an ENT for an ENT

HORTMANN Vestlab 100 represents a state-of-the-art diagnostic solution that truly takes user-friendliness to the next level. Working closely with Dr. Martin Enke, the HORTMANN Vestlab 100 system is the result of years of clinical experience.

Flexible caloric testing and analysis

There is a lot of user flexibility in the Caloric test. With two methods of computing velocity, three methods of computing frequency and the ability to subtract out the effect of any spontaneous nystagmus, you can

choose the caloric test method you prefer. The system provides caloric calculations using the Jongkees formulas for vestibular paresis and directional preponderance as well as an automatically calculated fixation index.

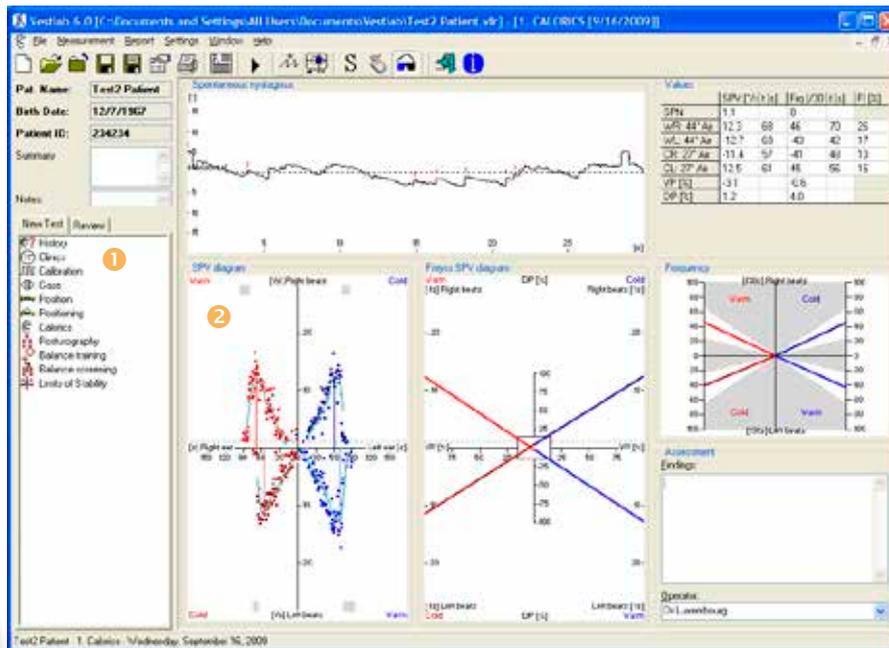


1 Easy access to the Diagnostic Test Battery

The new test tab gives a fast overview, and easy access to each test from the battery. New user defined tests are easily added.

2 On-screen PODS and Butterfly

The HORTMANN Vestlab 100 displays caloric PODS and Butterfly graphs on a single screen. Choose between Claussen, Haid, Stoll and Freyss butterfly graphs.



**Dr. med. Martin Enke
– developer of the Vestlab
Software**

The software behind the HORTMANN Vestlab 100 was developed by Dr. Martin Enke, an expert with a unique combination of medical, technical and programming knowledge that makes him a sought-after name in the field of vestibular testing.

Dr. Enke is a practising ENT specialist with a particular focus on vertigo and balance disorders. Awarded a medical doctorate from the Free University of Berlin in 1996 for his dissertation on the effect of

microtoxin on nystagmus, the physician received his specialist training in Stade, northern Germany, where he became assistant head of the otolaryngology ward and established the clinic's first vestibular laboratory. He now runs an ENT practice north of Stuttgart.

Software has been an interest of Dr. Enke's since 1993, when he participated in the development of a binocular VNG system for the detection of torsional nystagmus (SMI/UCLA) at the Free University of Berlin. During his specialist training, Dr. Enke saw the need for a powerful, Windows-based VNG program, and started development on what

would become the ENG-Analyser. The product has been expanded and updated ever since and is now in its third generation as Vestlab, an internationally sold full vestibular suite that includes balance training.

In 2006, Dr. Enke founded the company KM-ENKE GmbH and branched out into hardware, adding the ICS Balance Platform (ENKE Platform) to his development portfolio.

With his expertise and unique insight into the needs of his colleagues, Dr. Enke has been able to develop products that are custom-tailored to the ENT market. He is a popular lecturer and trainer.



Task settings							
History	Clinic	Calibration	Size	Position/Posturing	Caloric	Otolithics	Tracking
Category:	Question:						
Kind of dizziness	How does the patient subjectively perceive the dizziness?						
Duration of dizziness	How long does the dizziness persist?						
Vision	How is patient's vision affected by the dizziness?						
Other complaints	What other general complaints are associated with the dizziness?						
Ear symptoms	What symptoms does the patient feel in his/her ear(s)?						
Triggers	How can the dizziness be triggered?						
Pre-existing conditions	Does the patient suffer from one or more of the following?						
Medications	Is the patient taking medication?						

VNG testing the professional way

Designed by experts and pioneers in the development of balance equipment, our VNG system unites user-friendliness with high performance and brings you several key advantages.

Time-saving features

The Vestlab software includes time-saving features. The intuitive user interface makes learning to use the program a snap. Once data collection is complete the data will be saved, analyzed and displayed automatically. Auto fixation light allows the user to set a time when the fixation light will automatically turn on and off during caloric testing. The Caloric

countdown timer allows optimum spacing of caloric tests. The History and Clinics module enables assistants to add information on patient history and clinical findings, providing the physician with more time to treat and counsel patients.

Comprehensive reports and networking

Detailed, customized reports are automatically created in a ready-to-print format that referring physicians, audiologists and other health professionals can understand at a glance. The system can be networked so that data can be accessed from more than

one computer, making it easy and convenient to share data.

Lightweight full-shield goggles with fixation light

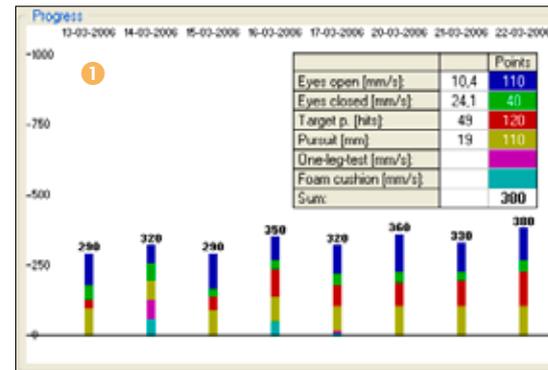
As comfortable as they are effective, the goggles provide noise-free and drift-free eye movement data. With a full shield and built-in fixation light the clinician has the ability to test with and without fixation, eliminating the need to change the patient setup. One-click video adjustments, let you quickly start your test battery. Fully adjustable and easy to handle, the lightweight design is also ergonomic to facilitate irrigation, patient positioning, and patient communication.

From diagnosis to rehabilitation

HORTMANN Vestlab 100 comes with the Vestlab software, which gives full access to VNG as well as Balance Platform tests. This way you can easily expand your clinic to include rehabilitation for people suffering from balance and vestibular disorders.

Compact, portable and USB-powered

The ICS Balance Platform utilizes a fixed force plate to measure the vertical force put forth by the patient's feet and assess the patient's amount of postural sway. The platform is hooked up to the computer via USB cable.



- 1 Your patients' balance improves with regular training on the balance platform.

Optional
Balance Platform



HORTMANN Vestlab 100

Technical Specifications

Interface:	USB to PC
Power Supply AC/DC Adaptor:	Input: 100-240 VAC/ 50-60Hz / 700 mA Output: 15V DC / 2A
Isolation Transformer:	115-230 VAC / 10/5 A

System Capabilities:

Inputs:	Two eyes switchable (simultaneous collection of horizontal and vertical tracings)
Coupling:	DC response
Resolution:	0.1° typical (horizontal and vertical)
Linearity:	1% full scale horizontal 1.2% full scale vertical
Sampling Rate:	Full 60 Hz for all tests
Software:	Windows graphical user interface; high performance analysis software; database storage of test data; sophisticated patient and test data management
VG40 Video Goggles:	See-through for external targets; vision denied for testing in complete darkness

Weight:

HORTMANN Vestlab 100 hardware:	2.7kg (5 lbs 7 oz)
VG40 Goggles:	430g (15.2 oz)

Dimensions:

HORTMANN Vestlab 100 hardware:	4.2 x 32.8 x 28.7 (1.65" x 13.7" x 11.3")
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PC Requirements:

Processor:	IntelPentium DualCore or AMD Athlon 64 X2 2 GHz or greater
RAM:	1GB or greater
Bus Support:	USB 2.0 (2 ports needed if have additional balance platform)
OS:	Microsoft XP Professional – Service Pack 3
Disk Space:	10 GB or greater
CD Drive:	CD-ROM or better
Display Resolution:	1280 x 1024 or greater
Display Color:	32 bit color
Recommended:	1x USB printer, 1 x Ethernet for network

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● Hearing Assessment ● Fitting Systems ● Balance Assessment

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The HORTMANN Vestlab 100 system comes with Hortmann Vestlab 100 hardware and power supply, Vestlab software, VG40 goggles, foot switch, USB cable, isolation transformer and cables, user manual (printed).



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