Introducing
MADSEN Astera²

OTOsuite® UNIVERSE

AUDIOMETRY
IMMITTANCE
EMR READY
PMM
HIT
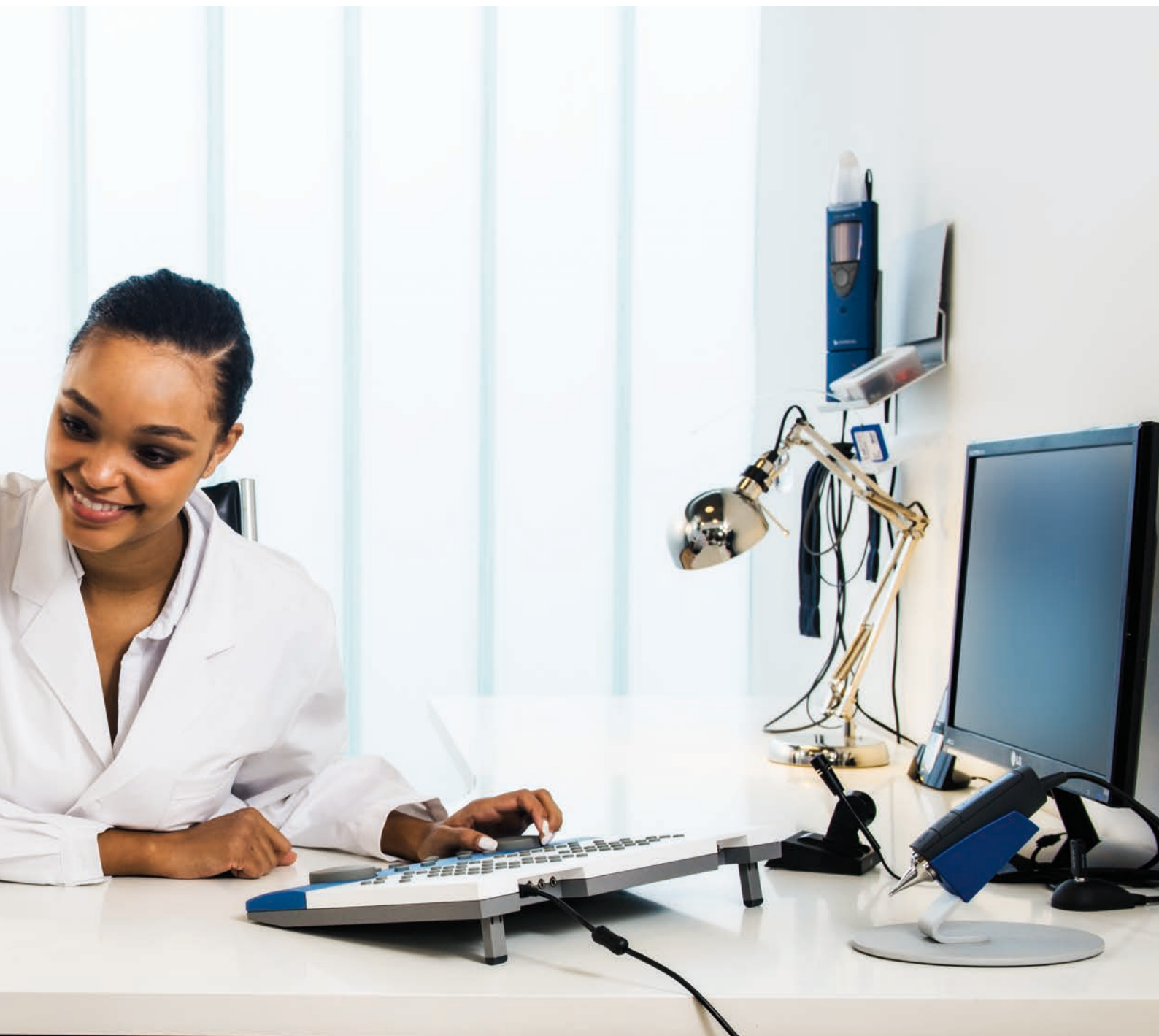COUNSELLING
REPORTING
NOAH
OAE
VIDEO OTOSCOPY

Excellence
in audiometry

otometrics

The mission of
excellent audiometry.

"Laura was two and a half years old when we discovered a severe hearing loss. She was isolated and had no language. We were quite worried. A comprehensive test showed that she could not hear. We were impressed with how the audiologist worked with Laura. It was amazing to experience how the tests were like playing and the equipment became invisible. The audiology sessions and a set of pink hearing aids changed Laura's life."

▶ **See the interview with Laura's father at www.otometrics.com/laura**
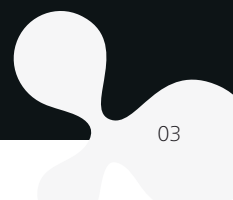
Introducing
MADSEN Astera^2

Refined.
More intuitive.
New possibilities.

The goal for MADSEN® Astera² was to improve functionality in the assessment of hearing losses of all types and introduce groundbreaking new assessment tools to strengthen your professional performance as a specialist. The end result is a new and refined clinical audiometer. The control panel features an intuitive VRA interface that facilitates smooth transition within test modalities. An intuitive touch screen interface enhances this concept still further. The **Paediatric** and **Special Tests** options bring advanced audiology into the clinic to expand your assessment possibilities. In addition, a unique and innovative **Tinnitus** assessment module sets the standard for clinical tinnitus testing audiometry.

▶ **See the video about MADSEN Astera²**
at www.otometrics.com/astera2

MADSEN Astera²
Audiometer Control Panel

MONITOR   ON/OFF

- CH1
- CH2
- Talk Back
- Monitor Speaker
- Assistant

User Test

Pulsed

Store
+ ? −

dB STEP
- 1
- 2
- 5

STIMULUS
- Tone
- Warble
- FRESH Noise
- Mic
- Source A
- Source B

MASKING
- NBN
- SWN
- WN

TRANSDUCER
- Insert
- Phone
- High Freq
- Bone
- Speaker

ROUTING
- Left
- Right
- Binaural

TRANSD

ROUT

Continuous On

Stim Lock   VRA

Talk Forward

Tracking   VRA

◄ Frequency

Frequenc

otometrics
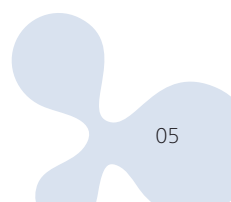
UCER

STIMULUS

Insert   Tone

Phone   Warble

High Freq   FRESH Noise

Bone   Mic

Speaker   Source A

Source B

ING

MASKING

Left   NBN

Right   SWN

Binaural   WN

TEST

Aided

TONE

THR

MCL

UCL

SPEECH

SDT

SRT

MCL

UCL

WRS/SRS

OPERATOR MIC

Mic Level ◢

Headset Mic

Desktop Mic

Talk Forward ◢

▶   ■

Reset   Incorrect

VRA C

             Correct

Store

+ ? -

Continuous On

y ▶

Flexible and future-proof.

A wise choice for the future.

MADSEN® Astera² is designed to follow your needs. It is so flexible that it can be operated both via the optional control panel, a mouse connected to a PC, or directly on a touch screen depending on your needs and clinical set-up. It enables you to perform everyday routine tasks and provides test modalities for more advanced assessment.

MADSEN Astera² is PC-based, so it gives you access to new software updates on a frequent basis meaning that your audiometer never really gets old. You are able to expand with new test modalities when needed. And you also get new features for existing test modalities.

**See the video about MADSEN Astera²
at www.otometrics.com/astera2**

Refined.

53 strong features.
## Great impact.

MADSEN Astera²

Small footprint, huge power
1.3 kg (2.85 lb)
5 Free Field outputs
Mini XLR connectors
105 dB HL output
5 x 40 W built-in amplifier

Friendly and intuitive
Sunshine™ control panel
Smile™ configuration
Click´n´Get™
VRA controls
Touch screen mode
Score´n´Store™
Cycle buttons
Configurable Masking Assistant

True counselling tools
Customisable severity scale
Historic audiogram
Real hearing loss and hearing aid simulators
based on the NAL calculation method
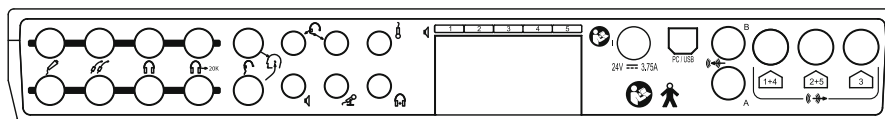
Unique tests
CUNY Test
MLST-A™, MLST-C™
Dedicated tinnitus test modality
Paediatric test modality
SAL Test
Automatic SNR calculation
Premium QuickSIN™
Phonemes counting feature

More signals
Exclusive FRESH noise (paediatric)
Frequency Specific Warble
White Noise
Speech Weighted Noise
Narrow Band Noise
Pure Tone & Warble

**And these are just some of the improvements. Read more about
MADSEN Astera² at www.otometrics.com/astera2**
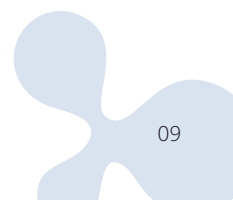
# The Sunshine™ control panel makes advanced audiometry more intuitive.

MADSEN® Astera² offers the possibility to switch from a classical view to a touch screen friendly control panel called Sunshine™. The control panel was created to make daily routine tasks even easier. It offers a visual and direct access to relevant settings through large, touch screen friendly icons illustrating transducers, tests and ears. The intelligent control panel offers the appropriate transducer for masking based on the one used for testing. Working with the Sunshine™ control panel is even more intuitive with the interface matching the needs demanded by tablet PC and touch screen users.
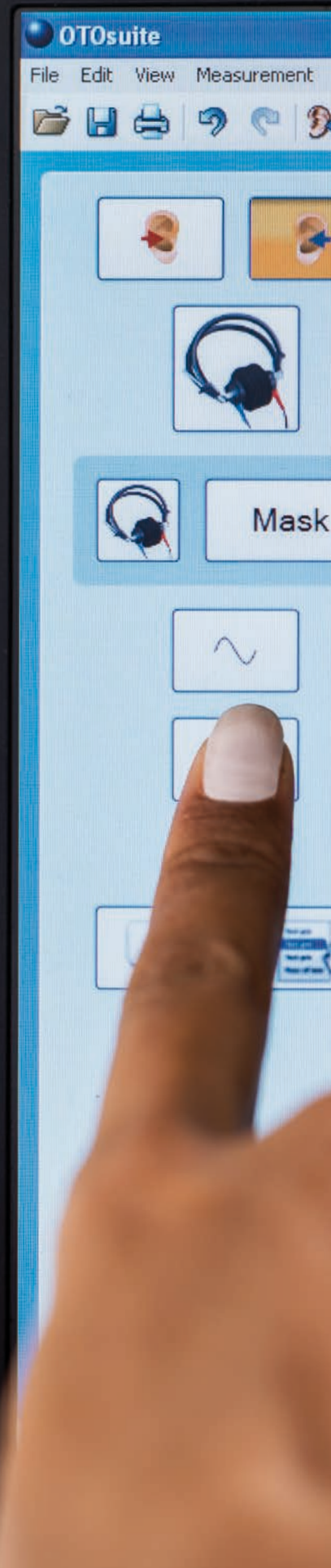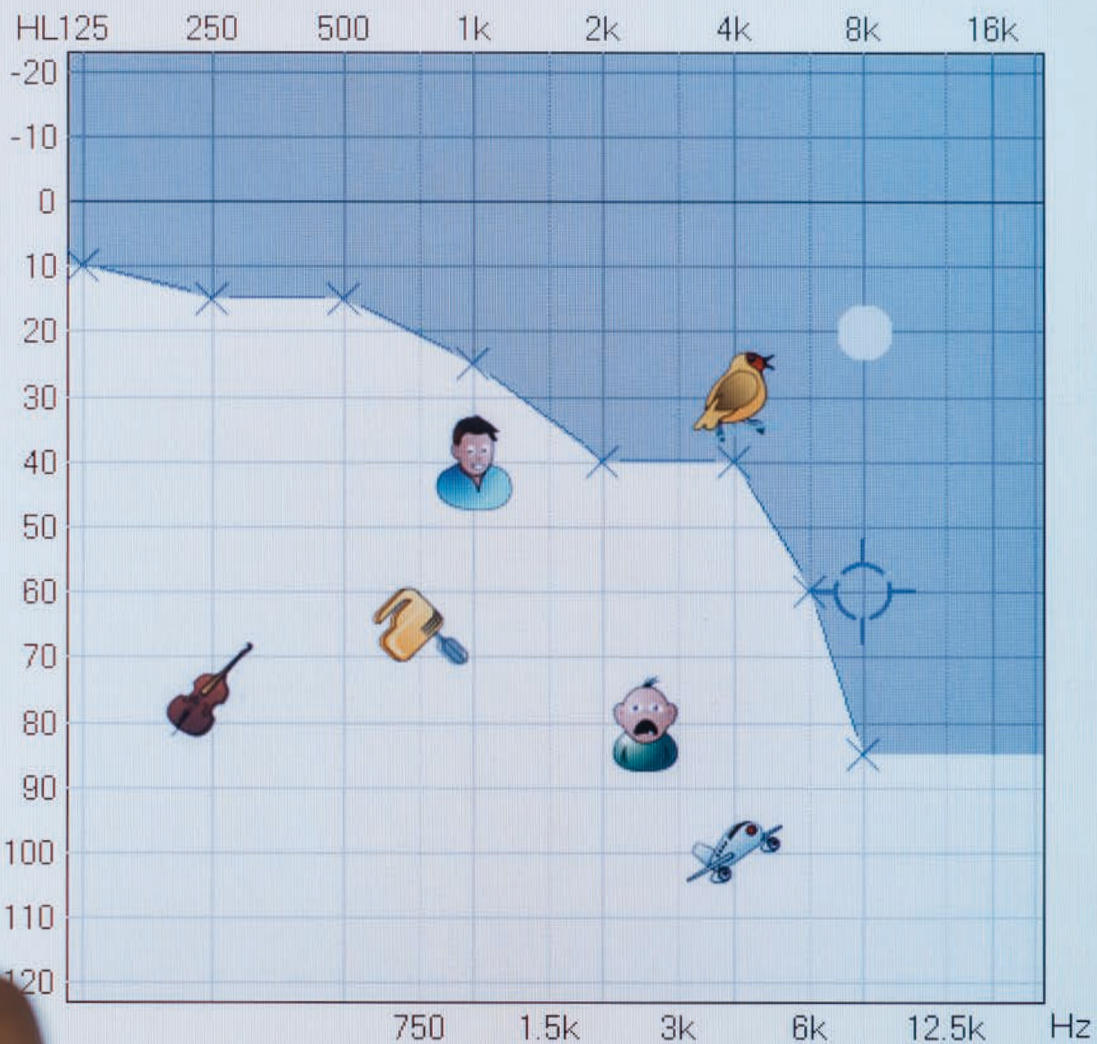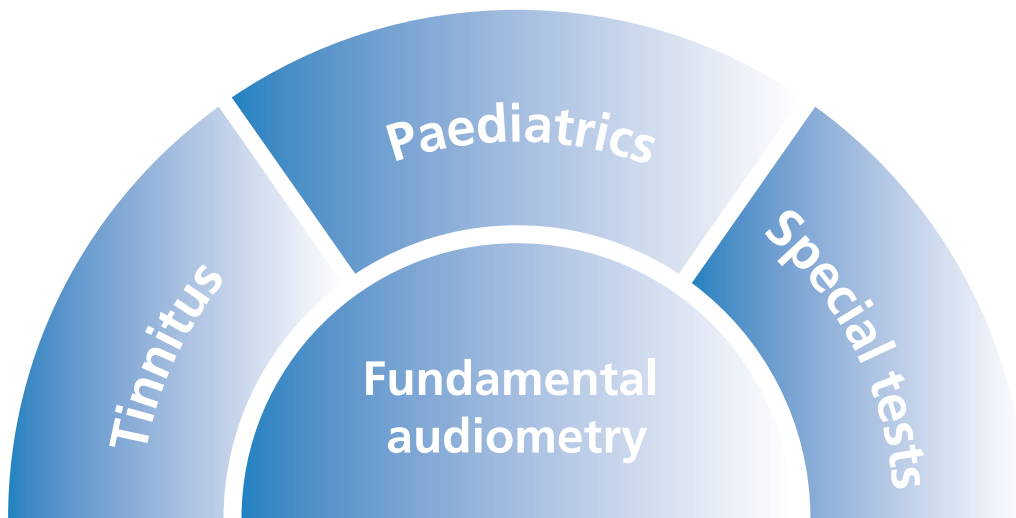
New possibilities.

Dedicated test modalities for excellent performance.

Tinnitus assessment

MADSEN® Astera² offers a dedicated application with numerous questionnaires useful when assessing tinnitus (THI, THS, TFI, and BAHIA). These questionnaires are fully integrated offering the advantage of storing, reviewing and sharing data during the assessment and management. This dedicated application also lets you perform the most relevant psychoacoustical tests like pitch and loudness matching, minimum masking level (MML), and residual inhibition (RI). As an easy tool for the professional, the tinnitus application has been designed to offer the operator a perfect overview of the tinnitus characteristics as well as integration in OTOsuite®.

Integrated paediatric module with VRA protocol (optional)

The paediatric test modality offers an intuitive design and a large, easy-to-view user interface. The audiometer control panel also includes dedicated buttons making it easy to focus on the child. The USB infrared transmitter connects with the video reinforcers allowing you to keep eye contact and reward the child with a single click. The test modality is also supported by paediatric features like a paediatric speech list, FRESH noise stimulation, the built-in talk to assistant and much more.

Special tests

MADSEN Astera² offers a large range of dedicated tests such as the TEN test and SAL test. The TEN test lets you easily mask the frequencies next to the test frequency in the test ear. That way you can avoid off-frequency-listening and get a proper estimate of the hearing threshold. You may also get indications of whether it is worthwhile to provide amplification in that frequency region. The SAL test is based on an indirect method of estimating hearing thresholds for bone conduction. Hearing thresholds for air conduction are determined first without and then with a simultaneous masking noise, presented by a bone vibrator placed in the centre of the forehead. The better the sensorineural acuity the larger the masking effect of the bone-conducted noise in that ear.

For more information about the test modalities go to www.otometrics.com/astera2

MADSEN® Astera² is far more than an audiometer. It's designed to be the core of a unique, integrated and modular clinical set-up with other Otometrics test modalities like OAE, tympanometry, video otoscopy and PMM. Each instrument offers unique benefits as a stand-alone solution. But it's when you choose to integrate multiple Otometrics instruments that the benefits really begin to multiply. OTOsuite® software connects it all allowing you to transition seamlessly from one test modality to another.

OTOsuite. The power of integration.
Improve workflow and clinical setup with a future proof solution.

Improving workflow
OTOsuite software is intuitive, easy to learn and easy to use. It supports the client journey as you see it, from diagnostics and counselling, to fitting and verification. Simple-to-use user test functionality ensures configurable, consistent and smooth workflows. It can be customised to suit individual needs or you can standardise protocols across larger organisations. And you work in a single software environment across modules.

The result is a better experience – for you and for your client.

Improving clinical setup
OTOsuite software is the backbone of Otometrics hearing assessment and fitting solutions turning them into parts of a modular system. It's easy to make plans for future development of equipment in your clinic.

Simply add an additional module when needed and upgrade the OTOsuite software and you are connected. The learning curve is short and easy because the module interfaces resemble each other.

Otometrics makes it easier to learn with a combination of thorough on-site training and online tutorials.

MADSEN OTOflex 100
– Immittance

MADSEN Capella[2]
– OAE

MADSEN Astera[2] – Clinical audiometry

AURICAL
– Fitting audiometry,
Counselling and PMM

AURICAL OTOcam 300
– Video otoscopy

AURICAL HIT
– Coupler Based Fitting
and ANSI testing

OTObase
– Integration

OTOsuite® UNIVERSE

AUDIOMETRY · IMMITTANCE · EMR READY · PMM · HIT · COUNSELLING · REPORTING · NOAH · OAE · VIDEO OTOSCOPY

Future-proof your investment

Otometrics will continue to improve our products – and our customers will be right there with us. Products you buy today will enjoy feature upgrades when you upload the latest version of OTOsuite. OTOsuite software is PC-based, working on a well known platform.

This is a totally different strategy from products, where proprietary software and hardware are merged into one stand-alone solution, and the product hardware ages at the same speed as the software. The OTOsuite solution keeps your equipment up to date, which keeps your investment future-proof.

THE FACTS

- Single point of entry to immittance, audiometry, speech mapping, hearing loss and hearing aid simulators, probe mic measurements (PMM/REM), otoscopy and OAE
- Direct access to measurement data, counselling tools and all compatible products
- More effective workflow, even through NOAH
- Short learning curve saves you time and energy
- Combined and customised reporting
- Ability to include data from non-Otometrics instruments in your report through NOAH

Many options. One strategy.

Because hearing assessment and fitting solutions from Otometrics are modular, you can design your clinic exactly the way you need. OTOsuite® binds individual modules together in a complete workflow, and with few clicks you can move from one testing modality to the next. Rather than forcing workflows to adhere to equipment limitations, Otometrics and OTOsuite offer design flexibility to conform to your ideal workflow.

Clinical setup with operator room and sound booth. All instrumentation (audiometer, tympanometer, OAE, PMM) can be controlled in the traditional manner from the operator side. The addition of a wall-mounted touch screen, located in the sound booth, allows for a great deal of flexibility. Choose to operate the equipment or simply engage and counsel the patient via the touch screen. In addition to the computer screen located on the operator side, results can be shown on the wall-mounted touch screen inside the sound booth.

Fitting setup with surround sound. Conduct audiometry, PMM and patient counselling from your desk displaying results on a flat panel monitor located over your shoulder. Our installation teams will mount the audiometer, PMM, television and even a five-speaker surround-sound system to your satisfaction. The result is a clean, modern approach that reflects your ideal workflow.

Paediatric assessment setup with operator room and sound booth. The MADSEN® Astera² audiometer with integrated VRA protocol and in-room control panel options makes play-based audiometry better than ever. The Otometrics audiology team has even created a special paediatric module within OTOsuite to optimise testing.

Read more at
www.otometrics.com/astera2
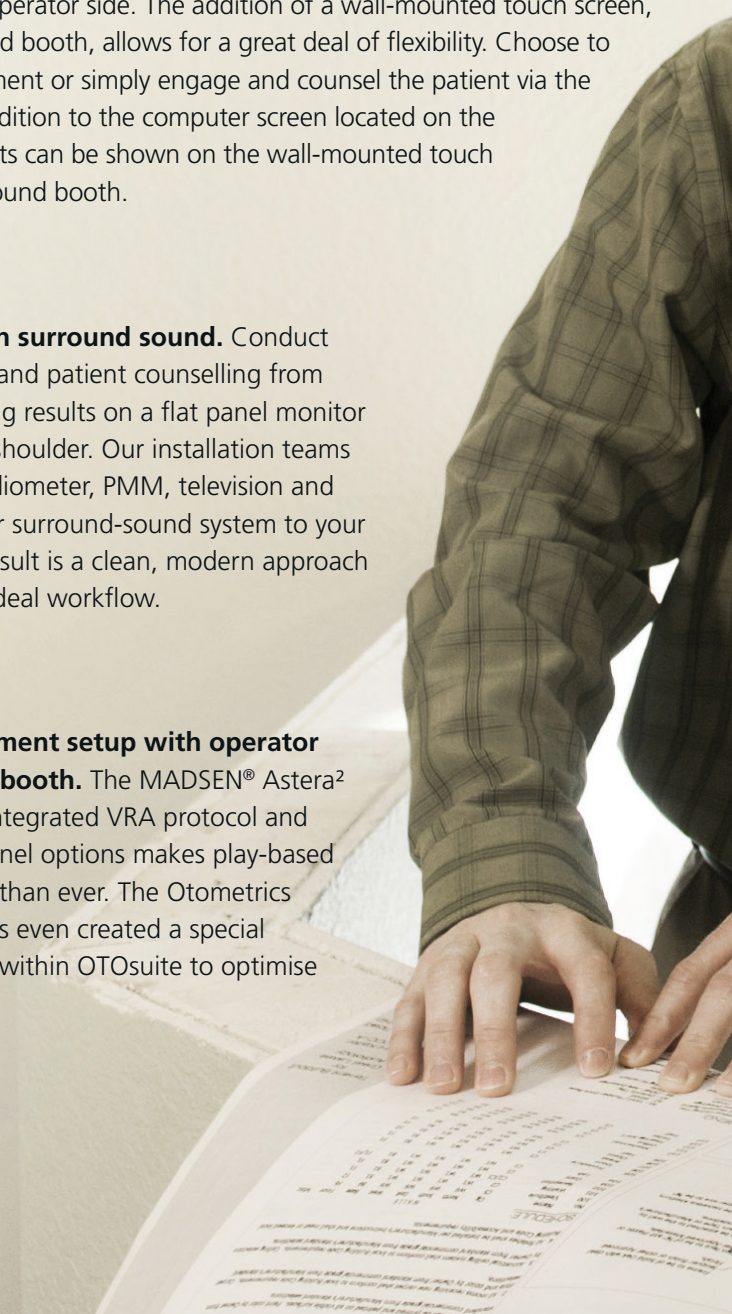
Choosing Otometrics opens up so many possibilities.

"Starting with an empty room in a new location is a challenge. Everything is open, from choice of chairs and tables to choice of equipment. My Otometrics sales rep listened to what I wanted to accomplish and then helped me set up my clinic. The result is a layout that supports what I want to do today, and allows me to grow in the future."

Clint Keifer, Au.D.
Great Lakes Audiology

▶ See more at
www.otometrics.com/astera2

Meet us online.

To constantly improve our products we encourage a dialog with you on Twitter and Facebook.

Many loyal MADSEN® Astera users helped us develop the MADSEN Astera² by sharing their experiences, requests and questions with us along the way. One of the questions we often heard was "How can I do paediatric assessment with MADSEN Astera?". Meet us online, find answers, ask your own questions, or share your experiences and opinions. We're always interested in helping you out and in hearing what you have to say.

▶ **Video-learning**

? **E-learning**

📝 **Libraries of published articles**

Meet these team members, and many others. We look forward to seeing you.

Lars Henrik Jensen
Program Manager

Johannes Lantz
Audiologist

Clément Sanchez
MADSEN Astera² Product Manager
and Audiologist

Visit our Knowledge center at otometrics.com

What our users say.

No doubt! PC-based audiometry is the future.

"Simply because it's easier to use and faster. I think it's the reason why many have moved from liking the oldest training audiometer to the newest. Before it was a lot of switching out CDs and recalibrating each disk before you could do the actual testing. Now we can give directions and instantly the test is ready and you can score directly on the computer."

A better workflow for the audiologist and the patient.

"The newest and greatest thing is the PC-based audiometer. My experiences from 5-10 years ago were not so great, but the Astera is very easy and can make the appointment flow much easier for both you and for the patient. It takes some of the stress out of moving from one task to the next."

Counselling is half the job. An intuitive screen is a great help.

"It's so nice to have the screen and be able to educate the patient that way and compare the audiograms. It has changed the way we counsel, and is a great help in making elderly people understand what happens with their hearing over time. I can simply show it to them on a big screen on the wall."
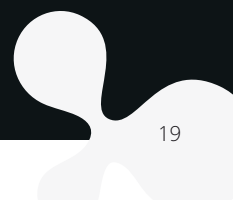
▶ **See more at www.otometrics.com/astera2**

Sarah Tracy
3rd year audiology student,
Central Michigan University

Nicole Hacker, Au.D.
Director of Clinical Services and Instructions,
Central Michigan University

Randa Mansour-Shousher, Au.D.
Northwest Ohio Hearing Clinic

About Otometrics

Otometrics is the audiology industry leader providing instrumentation and software solutions to hearing and balance care professionals worldwide. For more than 50 years, Otometrics has been helping hearing and balance care professionals succeed in improving the quality of life for their clients and patients around the world by delivering expert knowledge, reliable solutions and trusted partnership.

Otometrics develops, manufactures and markets computer-based audiological, otoneurologic and vestibular instrumentation in more than 85 countries under the MADSEN®, AURICAL®, HORTMANN® and ICS® brand names. Otometrics is part of the GN Group, one of the largest companies in Denmark. For more information, please visit www.otometrics.com.

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