

LB-acoustics Messgeräte GmbH

6/21/2019

# MYSPHERE 3 – TEST SET via Web-Shop:

One of the possibilities apart from recommendations of the local dealers is to order a MYSPHERE 3 TEST-SET via the homepage: www.mysphere.at/shop

- Main purpose is to try in a familiar environment the product with the own equipment. A personal advice is always online available during the test period.
- This Test-Set contains one head-bow, both "Soundframes" variants 3.1+3.2, all optional cables, the original box and instruction guide.
- The loaner cost for the Test-Set to borrow for one week is € 100,net. Which include cost for transport to the customer and back.
- If the MYSPHERE 3 can convince our customer and he choose to buy within the next 2 months, the total rental cost will be deducted from the purchase price.

## We are happy to announce further test reports about LB-

## acoustics and MYSPHERE 3:

- the absolute sound (6/2019, EN)
- <u>Head-Fi</u> (4/2019, EN)
- <u>Pierre Paya Diffusion</u> (3/2019, FR)
- <u>Simply audiophile</u> (3/2019, EN)
- innerfidelity.com (2/2019, EN)
- <u>HiFi-Insider</u> (12/2018, EN)

### proud to read comments like this:

"King of transient response and soundstage, world class build quality. A new benchmark in vocal performance"

"Insane quality of materials used, overall design of the headphone, ability to customize the sound with the angling of the SOUNDFRAMES, really solid sound quality for a dynamic driver, efficiency, choice of MYSPHERE 3.1 and 3.2"

more links at <u>www.mysphere.at</u>

# EDITORIAL



Dear friends of headphones:

This newsletter gives information about the status of product improvements, market + production of headphone MYSPHERE 3

Notes includes:

- MYSPHERE 3 Test-Set via Web-Shop
- Further test reports
- MYSPHERE feedback from AXPONA and the next shows to come
- Continuous product improvements and available variants
- Story of MYSPHERE 3 "why it is as it is"
- More about AMP pairing with MYSPHERE 3

Yours truly,

Heinz Renner Helmut Ryback

# feedback from AXPONA and the next shows to come







"THIS are SPEAKER-HEADPHONES" commented by NEW RECORD DAY:

https://www.youtube.com/watch?v=bBk1jiiC6g4

- The past AXPONA spring 2019 in Schaumburg-Chicago MYSPHERE was presented by partnering with WOO-AUDIO
  - Customers were impressed by the great sound stage and impulse response of MYSPHERE 3
  - Besides many others Herb Reichert also commented to the exceptional performance of the pairing with the all-new Woo-Audio WA11 and MYSPHERE 3.2 see: <u>https://www.stereophile.com/content/wooaudio-wa11-topaz-headphone-amp-dac-wa33-headphone-amp-and-mysphere-31-headphones</u>
- Next shows to come:

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- CANJAM SOCAL 22. 23. June Irvine Marriott California Plaza Suite 11
  - CANJAM LONDON 27. 28. July Park Plaza Westminster Bridge London
- KLANGBILDER
  - 22. 24. November Arcotel Kaiserwasser Vienna Room 562
- Additionally, to these shows MYSPHERE will be presented in many other shows by our dealers in Asia and the Netherlands





# MYSPHERE's continuous product improvements and variants

*Target is to support customer requirements during the whole product lifetime:* 

Bigger heads:

The material of the unique head-bow is changed in spring 2019 to fit still well on small heads as always, but with reduced pressure of 30% on bigger heads. The springforce/displacement is flattened. At the same time the material damping inside of the bow is slightly increased further.

- <u>Rough handling:</u> The fixation of the "Sound Frames" is enhanced by adding small sleeves which glide within the Head-Bow-Cushions. This enables a simpler putting on the head.
- <u>Transparent Cushions:</u>

   A second variant of the two cushions on the "Sound-Frames" made out of 3-D mesh can be ordered called "Type-T".
   This variant offers slightly emphasized high frequencies above 10kHz compared to the standard type.
   This variant was implemented on customer request as well.
   By the way: The Test-Set includes both

cushion variants.

• <u>Individualization:</u>

On request also modified head-bow cushions "Type-O" can be ordered especially for oval shaped heads. Such modifications can only be done based on joint discussions with the customer.



## The "Story of Mysphere"

## or "why it is as it is":

*This section of the Newsletter explains the reasons for the construction and design in more detail.* 

### **\*** The acoustic principle and tuning:

MYSPHERE 3 utilizes the pure acoustic open principle to get lowest "real moving mass" and "no acoustic spring force" to avoid resonances.

The moving mass:

The moving mass of an acoustic transducer is a sum of

- a) Mechanic mass
- b) Acoustic mass

Mechanic mass is simple measurable as it is the membrane and in case of a dynamic driver the coil mass as well. Many believe that's almost all.

But it isn't!

A very underestimated part is the acoustic mass.

This mass is the air mass within all slits, holes located in front and rear of the membrane and designed to guide the sound pressure through it to get the wanted friction = resistance.

*The "strange" thing in the physics is, that the smaller these holes and slits are – the higher the mass become.* 

MYYSPHERE 3 is designed in all details to has either no such bottlenecks (holes, slits) at all, or where it is not avoidable to get it designed with large dimensions. (The acoustic resistance goes with the 3<sup>rd</sup> up to the 4<sup>th</sup> order of the bottleneck distance!)

#### The acoustic spring force:

*Every single mechanic air volume is the equivalent to a mechanic spring in the acoustic.* 

Together with the holes and slits, these volumes (cavities) then form undesirable resonances.

The smaller those cavities, the higher the Q-value of the resonance.

The fully open principle

*Of MYSPHERE 3 guarantee that there are almost no undesirable resonances (apart the natural one in front of the human ear) and the real moving mass is extremely low.* 

*This result to the shortest (fastest) impulse- and linear frequency response.* 



# Amplifier pairing

In the second Newsletter we explained already, how it's about pairing amplifiers with Mysphere 3.1.

As at that time the new version MYSPHERE 3.2 was not on the market, it's time now to conclude again:

In the section about acoustic principle and tuning of MYSPHERE 3 is mentioned that this headphone does not use tiny cavities or slits holes.

A consequence is, that the importance of the correct damping value comes from the pairing with the amplifier and this necessary effect varies consequently by the amplifiers output impedance.

Another matter and technical background is the very high Electromotive Force (EMF) of MYSPHERE 3 caused by its very strong magnet system.

This fact causes in many circuits of amps unexpected problems resulting into a bit distorted sound when playing at high volume and music with strong bass.

It's not the case the strongest amplifier (many watts) must give the best results. It depends really on the specific circuitry.

So generically we found to the following thumb rule:

Mysphere 3.1 is optimized in damping for amps with 10-30 ohms output impedance. Lower one's tended to overdamp	Mysphere 3.2 has ideal damping with amps below 10 ohms output impedance. <b>But</b> however, OTL mode needs 3.2 version!
Mysphere 3.1	Mysphere 3.2
Small Mobile Players	Strong Solid-State Amps
Tube Amps with Transformer	Tube amps in OTL mode

Finally, we recommend:

"Up to the customer what is preferred, just try at your local dealer or to order a Test-Set on <a href="http://www.mysphere.at/shop">http://www.mysphere.at/shop</a>"!

Further upcoming events in other countries will be updated continuously as

MYSPHERE is available at dealers world-wide. More details will follow

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