



**MEZE**  
AUDIO

*Elite*

ISODYNAMIC HYBRID  
ARRAY HEADPHONE

POWERED BY

▷ RINARO ◁  
ISODYNAMICS



*With ELITE, we've created something that transcends all barriers of headphone design and engineering and moves to a new, artistic, graceful level. Following in the footsteps of a successful partnership, together with Rinaro Isodynamics we managed to exceed our expectations once again and create something for the ages. It's not mass production; it's the craftsmanship that sparks the magic and wonder in ELITE, what makes it exciting, and these are values that we choose over any shortcuts.*

**Antonio Meze,**  
Lead designer and Founder of Meze Audio

*Thank you!*  
*Antonio*



## **MEZE x RINARO**

Meze Audio and Rinaro Isodynamics continue their collaboration for the release of the new ELITE Isodynamic Hybrid Array headphone. Combining the outstanding mechanical design and ergonomics from Meze Audio with the signature technology and acoustic engineering of Rinaro, ELITE is here to set a new standard in top of the line headphone performance.

### **Meze Audio**

For the past 10 years, Meze Audio has been developing audiophile headphones and earphones renowned for their timeless design, pure comfort and engaging, vivid sound. From looks to technology, Meze Audio products are designed to surpass all short-living trends and become heirlooms, rather than just headphones. Today, founder Antonio Meze and his skilled team design and develop their products in Baia Mare, Romania, in the spirit of their original 'no-compromise' vision.

### **Rinaro Isodynamics**

Rinaro originated in the USSR (today's Ukraine) during the Cold War as part of a state-funded acoustic technology research program. With government backing and access to advanced testing facilities, the team was able to focus all of its efforts on planar magnetics. A field they have continued to innovate in for the last 30 years, since the collapse of the USSR. In the last decade, Rinaro have expanded their capabilities and capacity with the development of state-of-the-art R&D and manufacturing facilities in Ukraine and Poland. The new facilities have been a driving force in the creation of the revolutionary Isodynamic Hybrid Array technology found in Meze Empyrean and ELITE headphones.



**PASSION  
BROUGHT US HERE,  
TECHNOLOGY  
MADE IT HAPPEN**

Combining an exclusive aesthetic with state-of-the-art engineering, ELITE delivers an accurate, authentic listening experience ready to meet the highest expectations of the proficient audiophile.

With a no-compromise mindset, driven by our love for art and sound, we built a one-of-a-kind headphone using innovative designs and technologies that perfectly complete each other to create pure emotion.

# THE PROGRESSION OF THE FLAGSHIP RINARO ISODYNAMIC HYBRID ARRAY DRIVER®



With a custom, newly designed driver, created by Rinaro Isodynamics, ELITE is the result of 3 years of research and development through which we strived to create a powerful, lifelike, and immersive experience that awakens the senses of the listener.

## ▸ **ULTRA LOW DISTORTION**

Total harmonic distortion (THD) measures under 0.05% in the whole frequency range.

## ▸ **LIGHTWEIGHT**

75g combined driver weight designed to create a headphone that offers prolonged listening sessions.

## ▸ **ULTRA HIGH RESOLUTION AUDIO**

Upper frequency limit of audio reproduction is 112,000 Hz.

## ▸ **RINARO PARUS® DIAPHRAGM**

An innovative low mass acoustic diaphragm constructed on an ultra-thin biaxially oriented semi-crystalline film.

## ▸ **EASY TO DRIVE**

101dB@1mw/1kHz; 32Ω  
Can be driven by almost any source without the need for amplification.

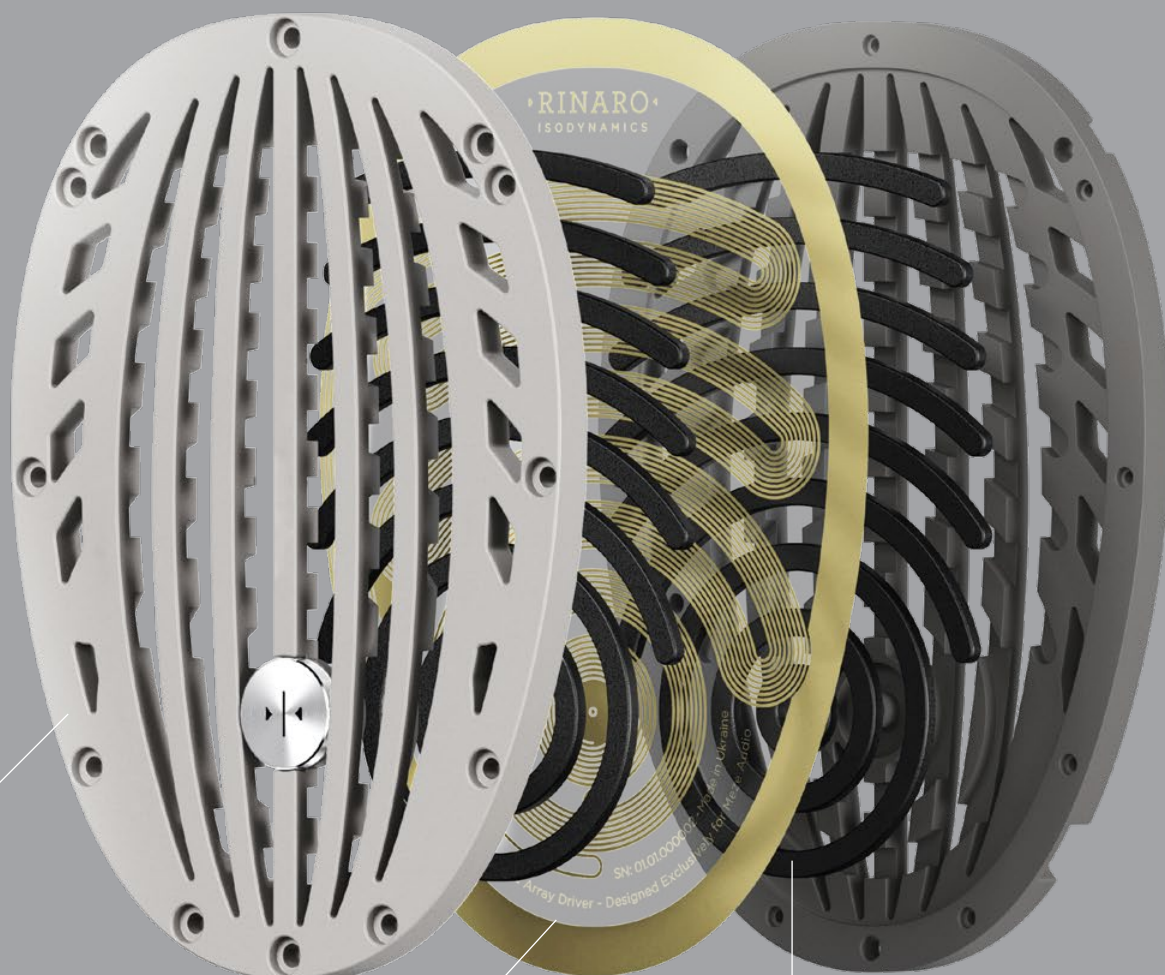
## ▸ **PATENTED ISODYNAMIC HYBRID ARRAY TECHNOLOGY**

One of the most sophisticated and advanced planar magnetic technologies in the world.



## ARCHITECTURE OF THE ISODYNAMIC HYBRID ARRAY DRIVER

The MZ3SE driver builds on the pioneering technology of the flagship MZ3 driver found in the Empyrean headphone. The innovative Isodynamic Hybrid Array technology delivers a more selective acoustic performance to the various areas within the structure of the ear. Advances in diaphragm materials have opened the doors to even higher resolution and accuracy of the sound reproduction, setting a new benchmark in headphone design.



### [MZ3SE] CASING

Reinforced polymer housing designed to withstand the demanding 12,7N load generated by the Hybrid Magnet Array.

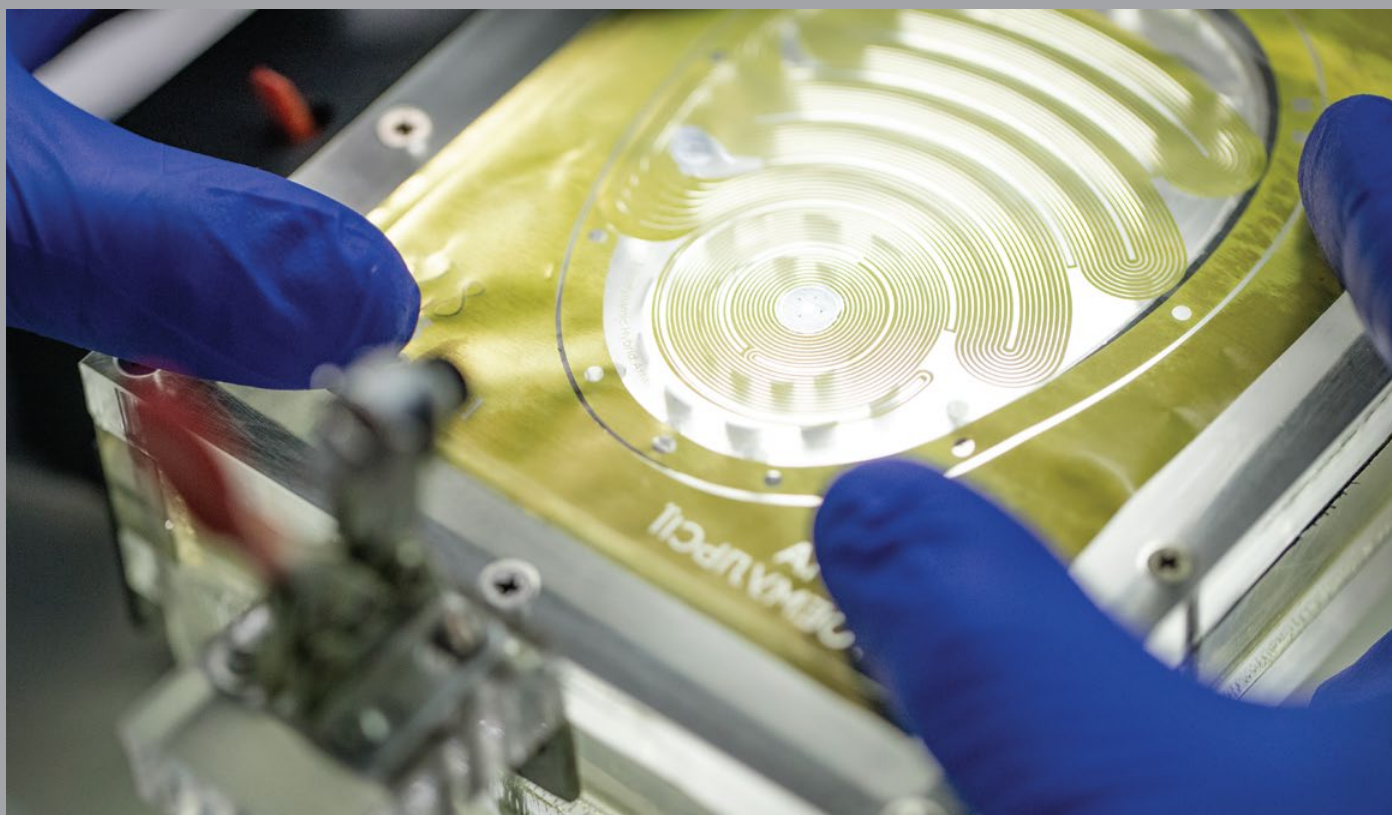
### RINARO PARUS® DIAPHRAGM

Weighing only 0.11g with a large active area of 4650mm.

### [MZ3SE] HYBRID MAGNET ARRAY

Symmetrically placed on either side of the diaphragm, two neodymium magnets are arranged into a Hybrid Array to create a 0.35 Tesla Isodynamic magnetic field required for a uniform activation across the whole diaphragm surface.

# INTRODUCING RINARO PARUS®: A LOW MASS DIAPHRAGM MATERIAL THAT SETS A NEW BENCHMARK IN ACOUSTIC PERFORMANCE

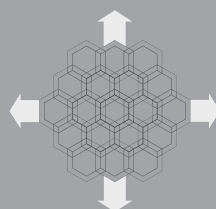
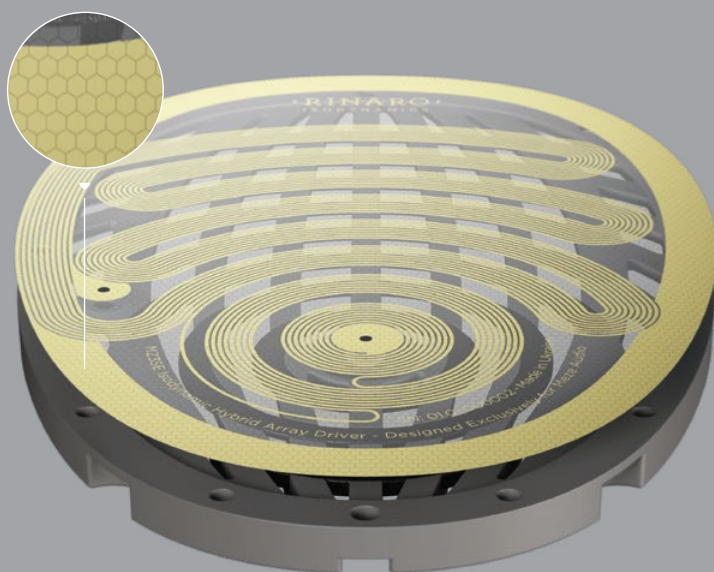


The new driver behind ELITE features Rinaro Parus®, an innovative low mass acoustic diaphragm built on an ultra-thin biaxially oriented semi-crystalline polymer film.

This, combined with the signature Isodynamic Hybrid Array Driver technology, allows sound waves to be targeted with more accuracy around the shape of the ear, producing natural sound transparency and a wide, articulate soundstage.

The polymer is produced with bespoke sequential biaxial lengthening technology, a process that involves stretching the polymer in transverse directions at elevated temperatures to improve structural performance.

This results in a complex semi-crystalline micro-structure developing in the material, which exhibits remarkable strength, stiffness, and stability, combined with an extremely low acoustic mass.



**SEQUENTIAL BIAxIAL LENGTHENING TECHNOLOGY**  
Advances in polymer processing have led way to improved acoustic performance.

# DUAL DRIVEN SYSTEM ADVANTAGES



Conventional planar magnetic technology reflects the signals entering the ear canal with time-varying delays, which affects the 3D sound imaging of the headphone.

Using different voice coil configurations, the hybrid array determines a better distribution of the sound intensity across the sound wave front, when directed to the auricle and ear canal, even at high frequencies.



## RINARO PARUS® DIAPHRAGM MATERIAL

Rinaro Parus® is an innovative low mass acoustic diaphragm built on an ultra-thin biaxially oriented semi-crystalline polymer film.

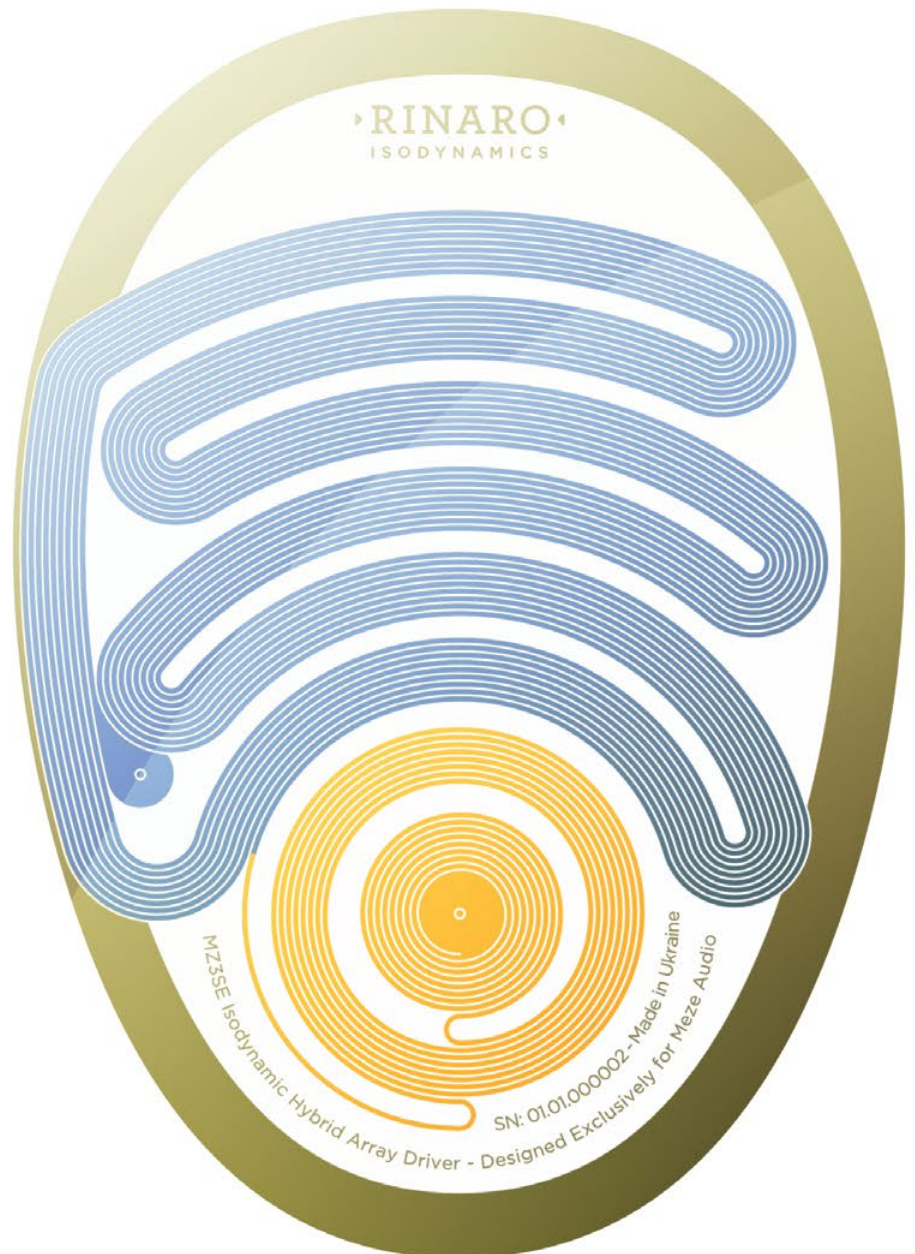
**The use of dual coil arrays not only creates a balanced frequency response around the whole range, it also allows for better frequency targeting within different areas of the ear, improving acoustical perception on the upper frequency range.**

### SWITCHBACK COIL

The **switchback** coil is more efficient at reproducing lower frequencies and is positioned in the upper part of the driver.

### SPIRAL COIL

The **spiral coil** is more efficient at reproducing middle-high frequencies and is positioned directly over the ear canal, enabling more direct sound waves to enter the ear without any time delays.





# DUAL DRIVE EFFICIENCY AT HIGHER FREQUENCIES

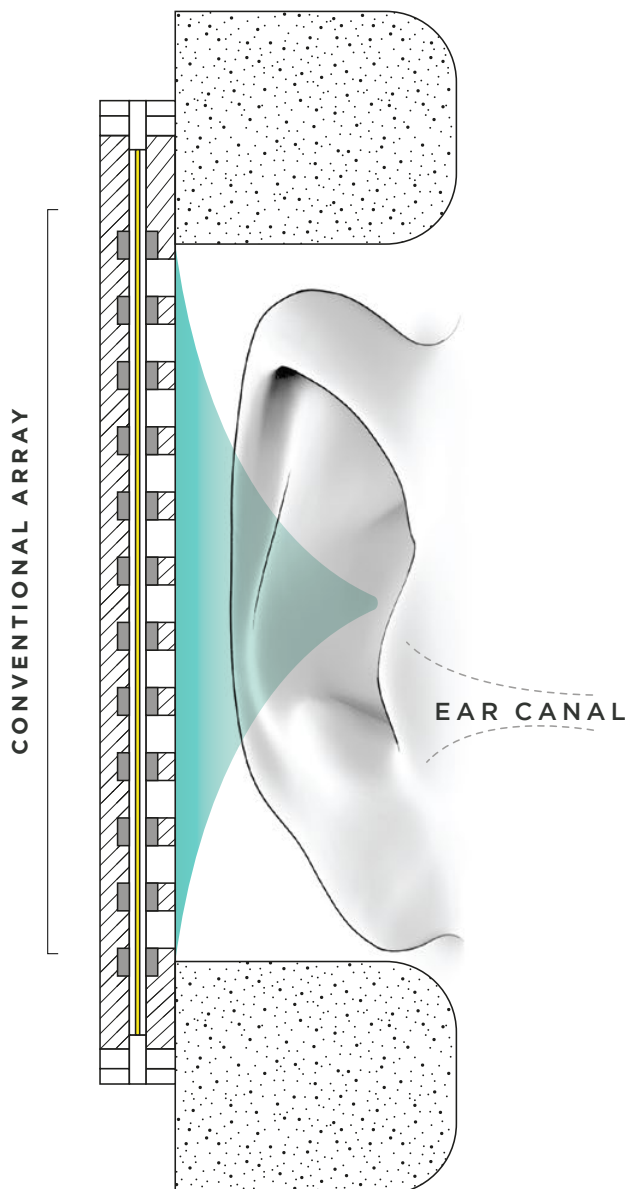


At frequencies above 10kHz, where sound wave length is smaller than the cushions inner cavity, the sound field becomes diffused with an amount of the direct and reflected sound waves within the ear canal.

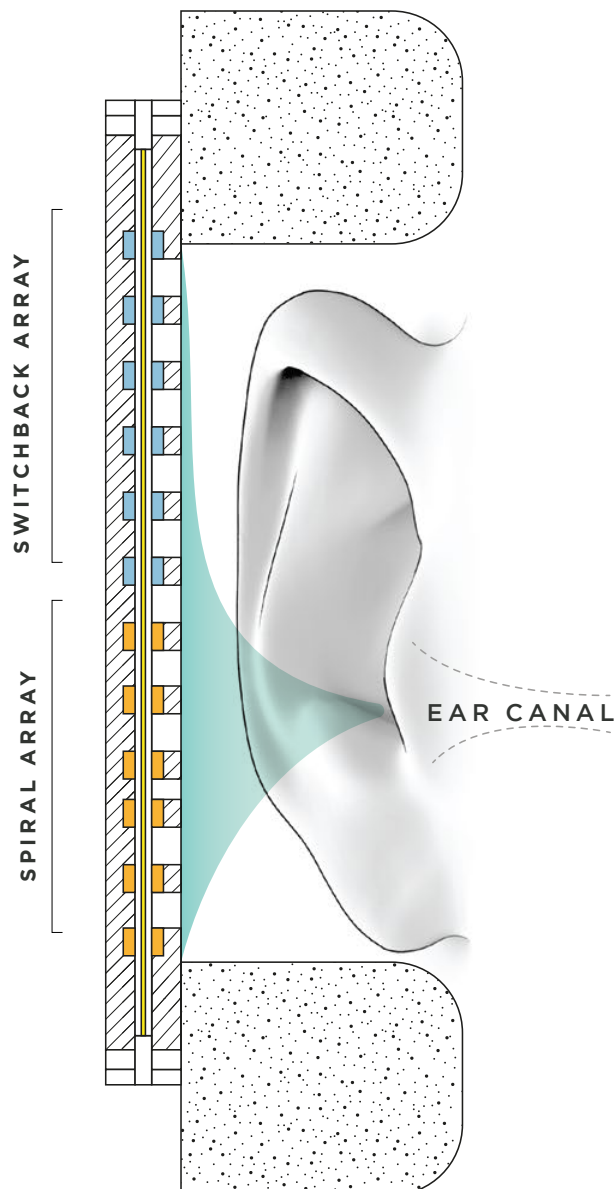
A significant increase of direct sound waves can be achieved by positioning the most efficient part of the diaphragm in mid-high frequencies directly over the ear canal, resulting in improved 3D imaging and spatial localization.

## EFFICIENCY OF DIAPHRAGM AT HIGH FREQUENCIES

**Conventional  
Planar Array**



**Rinaro Isodynamic  
Hybrid Array**





## PRECISION MANUFACTURED FROM THE GROUND UP

It takes more than 100 hours to produce and test each driver unit that has been manufactured at Rinaro Isodynamics in Ukraine, before delivering the drivers to Meze Audio for final assembly of the headphone.

# ISOMAGNETIC EARCUP TO EARPAD COUPLING TECHNOLOGY

An innovative design feature developed by Rinaro is the Isomagnetic® earpad attachment, which uses the demagnetizing field generated by the driver to hold the earpad in place, whilst also redirecting the magnetic field back into the driver and improving driver efficiency.



## 95% MAGNETIC FIELD SHIELDING

The ferromagnetic earpads decrease the magnetic stray field affecting the listeners head by 95%



## INVISIBLE LOCKING SYSTEM

This innovation uses the magnetic field of the drivers to keep the earpads in place

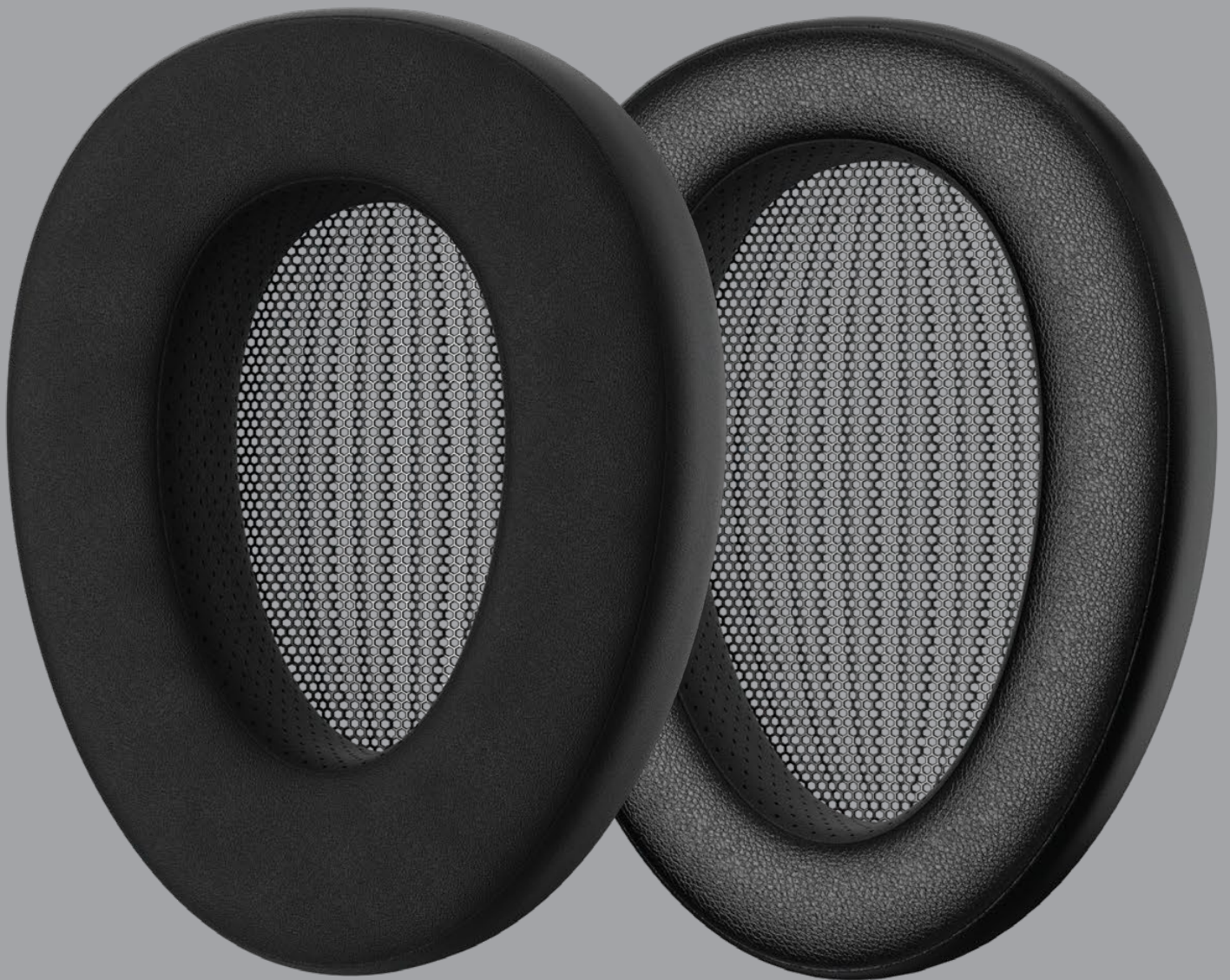


## 12% INCREASE IN DRIVER POWER

Patented ferromagnetic plates channel the magnetic field back into the driver increasing output by 1dB or 12%

# CALIBRATE YOUR SOUND

The Meze ELITE headphone comes with two uniquely shaped earpads developed by Rinaro, which allow for personal calibration of the sound signature.



01

02

## 01. ALCANTARA®

This is the well known 30mm deep Alcantara earpad, originally developed for the Empeyan headphone in 2018.

## 02. HYBRID (Perforated Alcantara® Interior + Real Leather Exterior)

Developed especially for ELITE by Rinaro, the 25mm deep Leather + Alcantara earpad is a new addition to the line-up that combines the best of two materials in one design.

**BEAUTIFUL AESTHETICS  
TAILORED FOR  
LONG LISTENING  
SESSIONS**



# PATENT-PENDING PRESSURE DISTRIBUTION WINGS



The patent-pending suspension wings support system is elongated and curved at both ends, descending further on the side of the head and distributing the weight of the headphone evenly, for an utmost comfortable listening experience.



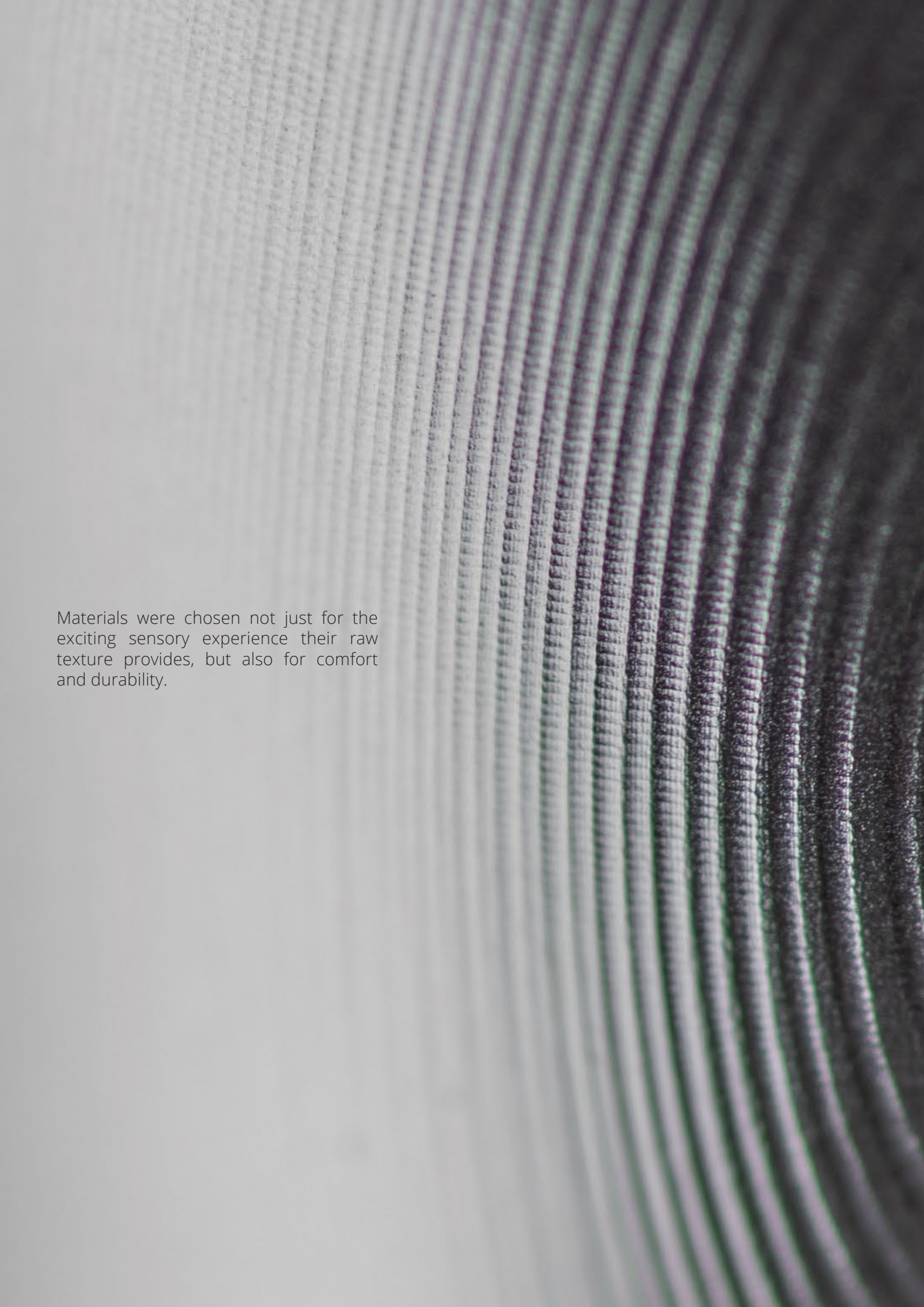


A deep black grill with intricate carvings completes the look, turning ELITE into a futuristic take on personal audio design.




Take a closer look to discover the highly complex geometrical imprint accentuated through the silver finish of the CNC aluminum frame.



A close-up photograph of a textured fabric, possibly a cable-knit sweater. The fabric features a series of vertical, wavy ribbed bands that create a rhythmic, undulating pattern. The lighting is soft and directional, highlighting the texture and depth of the knit. The background is a plain, light color, which makes the fabric's texture stand out.

Materials were chosen not just for the exciting sensory experience their raw texture provides, but also for comfort and durability.



A carbon fiber headband with a real leather headrest were added to the frame, for an ultra-light feel and maximum durability.

## Designed for life

A core belief of Meze is to create products that last through years and years of industry changes, bringing long-lasting value to the customer. Elite is no different.

From looks to technology, this headphone was designed to surpass all short-living trends and become a true heirloom.

Taking long-term sustainability to a new level, Elite is also fully serviceable: from the replaceable earpads to the high-performance materials used, every part on the headphone chassis is available to be easily disassembled and serviced.

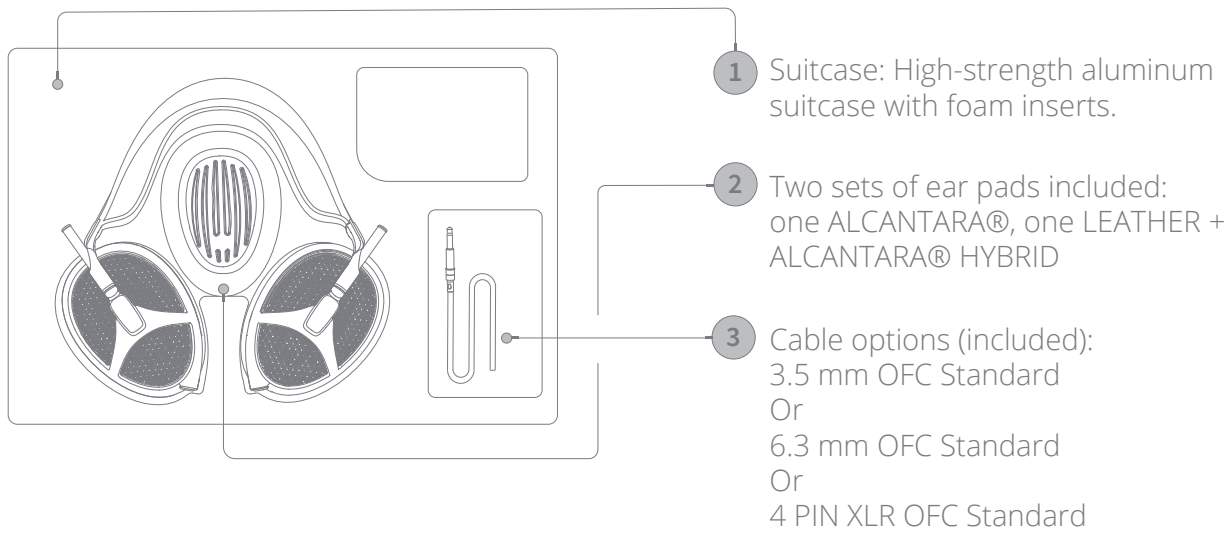


*Elite*

FEEL A NEW  
FLAGSHIP SOUND  
FROM MEZE AUDIO.



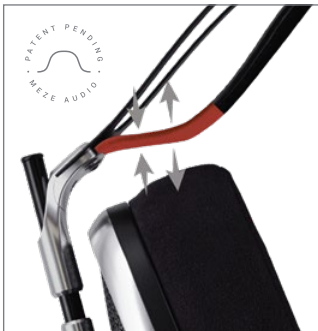
# PACKAGE CONTENTS



## Upgrade cables:

Balanced 4 PIN XLR Copper PCUHD  
Balanced 2.5 mm Copper PCUHD  
Balanced 4.4 mm Copper PCUHD  
6.3 mm Copper PCUHD

Balanced 4 PIN XLR Silver Plated PCUHD  
Balanced 2.5 mm Silver Plated PCUHD  
Balanced 4.4 mm Silver Plated PCUHD  
6.3 mm Silver Plated PCUHD



### Pressure distribution wings

Patent-pending suspension wings increase the leather headrest's contact surface area with your head and relieve uncomfortable pressure points.



### Aluminum grill

Do not attempt to push the grill, for it may result in permanent damage of your headphone.



### Easy ear cup adjustment

To easily adjust the ear cups in the right position, you need to simply rotate the hinge while gently pulling down the ear cup.



### Isomagnetic ear cushion coupling technology

An innovative design feature developed by Rinaro is the Isomagnetic ear cup attachment, which utilizes the demagnetizing field generated by the driver to hold the ear cup in place, whilst also redirecting the magnetic field back into the driver and improving driver efficiency.

## HEADPHONE'S TECHNICAL SPECIFICATIONS

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<b>Driver Type</b>	Rinaro Isodynamic Hybrid Array® [MZ3SE]
<b>Operating Principle</b>	Open
<b>Ear Coupling</b>	Circumaural
<b>Frequency Response</b>	3 - 112,000 Hz
<b>Impedance</b>	32 $\Omega$
<b>Nominal SPL</b>	101 dB (1 mW / 1 kHz)
<b>Maximum SPL</b>	> 130 dB
<b>Total Harmonic Distortion (THD)</b>	<0.05% (in the whole frequency range)
<b>Weight</b>	430 g

## MZ3SE DRIVER SPECIFICATIONS

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### PHYSICAL

<b>Geometrical Shape</b>	Ovoid
<b>Size</b>	102 mm x 73 mm
<b>Weight</b>	75 g
<b>Casing</b>	Fibreglass reinforced polymer

### DIAPHRAGM

<b>Type</b>	Rinaro Parus® [MZ3SE]
<b>Active Area</b>	4650 mm <sup>2</sup>
<b>Weight</b>	0.011 g
<b>Acoustic Mass</b>	7.5 kg/m <sup>4</sup>
<b>Lower Frequency Limit</b>	3 Hz
<b>Upper-Frequency Limit</b>	112,000 Hz

### MAGNET ARRAY

<b>Type</b>	Isodynamic
<b>Size</b>	75 mm x 49 mm
<b>Magnetic Flux</b>	0.35 T



**MEZE**  
AUDIO

[www.mezeaudio.com](http://www.mezeaudio.com)