



Focal launches a new line of High-End Headphones

Focal, a the French loudspeaker manufacturer renowned for its exclusive speaker driver technology, is unveiling three new models of headphones equipped with major innovations in acoustic components and mechanical design. Initiated four years ago, this huge project has now given life to Listen, Elear and Utopia.

Embodying Focal's core values, these products combine exclusive technology, remarkable audio performance and the brand's own design codes. This month also sees the inauguration of Focal's brand new production line at its site in Saint-Etienne, France which will be entirely dedicated to manufacturing Elear and Utopia headphones.

Utopia & Elear

Experience the sound of the high-fidelity loudspeakers in headphones

Utopia and Elear headphones are the result of a rather risky challenge: to offer an audio experience worthy of the brand's high-fidelity loudspeakers through two new products. In order to achieve this, Focal approached the design of the various components in these headphones very differently to other players in the market.

The first obvious aspect is the extent of the open design of these two products. When Utopia or Elear are being worn, the sensation is remarkable: there is absolutely no change in perception in terms of room size. This desire to not have an impact on the impedance of the room the user is in, clearly contributes to the realistic sound of these two headphones.

The next step for Focal's mechanical engineers and designers was to improve the comfort of the headphones. There are still many high-end headphones which no doubt offer excellent performance, but comfort is a difficult issue over long periods. So, Focal focused on designing a headband with a constant bend, regardless of the size of the user's head size. This spreads the weight of the headphones evenly over the head to avoid the feeling of pressure on the head or ears, which is all too often the case with other products.

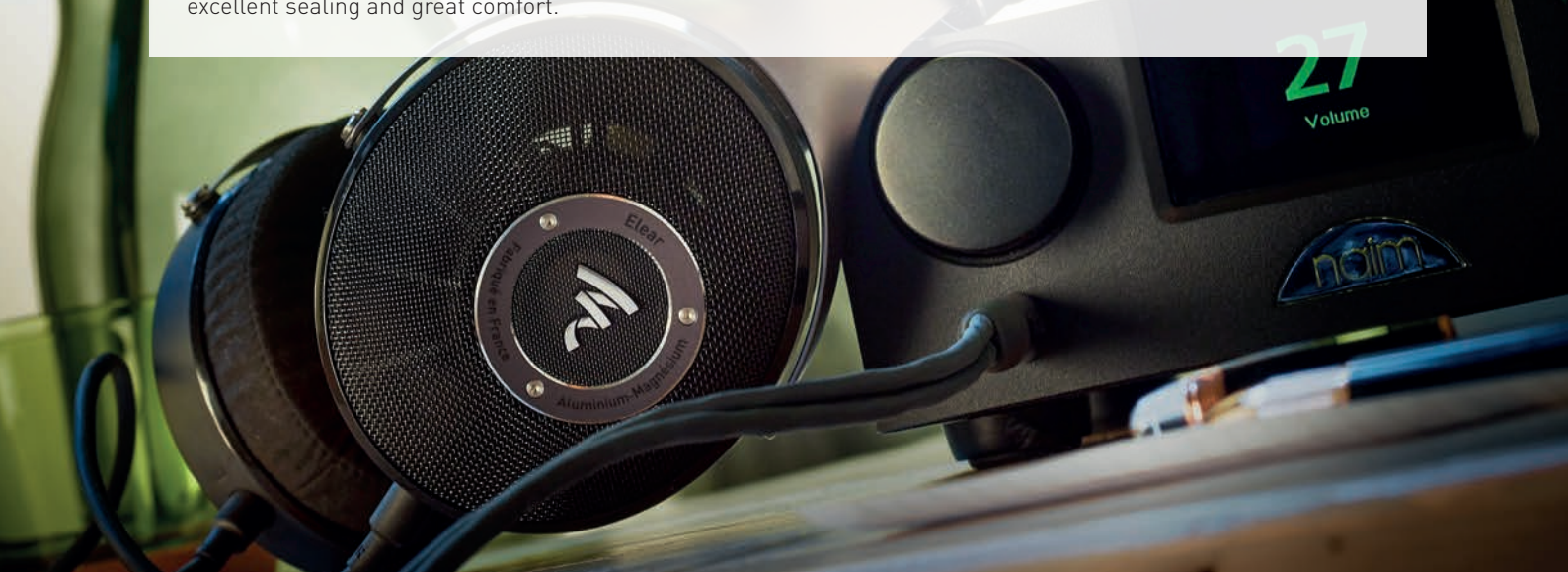
The yoke developed for these two projects is also very impressive, both in terms of purity of the design and in terms of comfort. Thus, the yoke doesn't have traditional vertically rotating mechanics, as this has been integrated into the headband.

In addition to this, the asymmetry of the attachment points connecting the yoke to the ear-piece improves the distribution of clamping pressure and ensures excellent sealing and great comfort.

The ear-piece also deserves praise for its remarkable aesthetics and its impressive open design. This avoids any mechanical compression of the transducers while preserving exceptionally realistic sound. Equipped with high-density memory foam, the headphones provide perfect sealing and adapt seamlessly to heads of all shapes and sizes.

A characteristic which really sets Focal apart is its ability to innovate and push back the limits in the field of speaker drivers, while managing its own industrial process at the production site based in Saint-Etienne, France. The challenge to reproduce experiences worthy of the brand's best loudspeakers through two new headphones has resulted in a major innovation in the world of headphones (patent pending): the very first completely open back full-range loudspeaker. This world premiere is the result of four years of collaboration between the R&D and production methods teams.

By refusing to accept the compromise of having ports, which would of course allow for numerous tuning possibilities, particularly in the low end, Focal's priority was to get rid of the distortion typically experienced with this type of open design. The only limit with this concept is the necessity to conceive the headphones from the start around a loudspeaker with a perfect frequency response. The only possibility for sound tuning would come down to the choice of materials and their properties, for example the magnet, the voice coil, the surround or, of course, the dome. There was just one watchword: to have the lightest moving assembly possible in order to be able to reproduce the highest frequencies.



The only means of succeeding with these acoustic challenges was to perfectly master the development and production processes. For this reason, a whole new production line was developed at the Saint-Etienne site for manufacturing Utopia and Elear.



Utopia

The Purity of sound at its apogee

Utopia headphones are Focal's flagship product. The sound quality is striking in terms of realism, neutrality, dynamics and clarity. The user will forget the headphones are even there, and the reproduction of the audio signal is of unrivalled clarity. Particular attention has also been paid to the design in terms of types of use, comfort and overall aesthetics. The shifting of the articulation to the inside of the headband is the perfect example of this, and gives the carbon fibre yoke a perfectly smooth and seamless design. The true lambskin leather used for the ear cushions and headband emphasises the sleek design, the high performance and the comfort of Utopia, and creates a sense of elegance.



Elear

The high-fidelity experience

Elear are the brand's audiophile headphones. In essence, they are the same as Utopia headphones when it comes to the loudspeaker design and the mechanics. The solid aluminium yoke gives these headphones a remarkably smooth seamless design. The microfibre ear cushions provide the user with maximum comfort, an essential quality for long sessions.



Romain Vet,
FOCAL Headphones Product Manager



“Focal's ambition is to consolidate its position as a reference brand for high-end headphones. Today we are launching three innovative models featuring all our acoustic expertise as well as Focal exclusive technologies. The new production line, dedicated to Elear and Utopia headphones and located on our manufacturing plant in France, allows a total control of the manufacturing process. This ensures our customers high-end headphones, resolutely audiophile and handmade in France.”

Pure innovation

The new "M"-shaped dome



TENDING TOWARDS A PLANE WAVE WITH AN ULTRA-NEARFIELD LOUDSPEAKER

One of the reasons why headphones sound different to speakers is due to the shape of the soundwave. Whether it's an inverted dome or a positive dome, a listening distance of an inch requires that the shape of the dome is completely redesigned to achieve a plane wave in ultra-nearfield listening. In order to achieve this, Focal innovated once again by designing a cone with a new 'M'-shaped dome. Utopia, of course, is equipped with the famous pure Beryllium dome in order to offer an unrivalled mass rigidity damping ratio. Elear, on the other hand, has a dome made of an aluminium/magnesium alloy just like Aria speakers.



A new monolayer voice coil



A MONOLAYER VOICE COIL WITHOUT FORMER

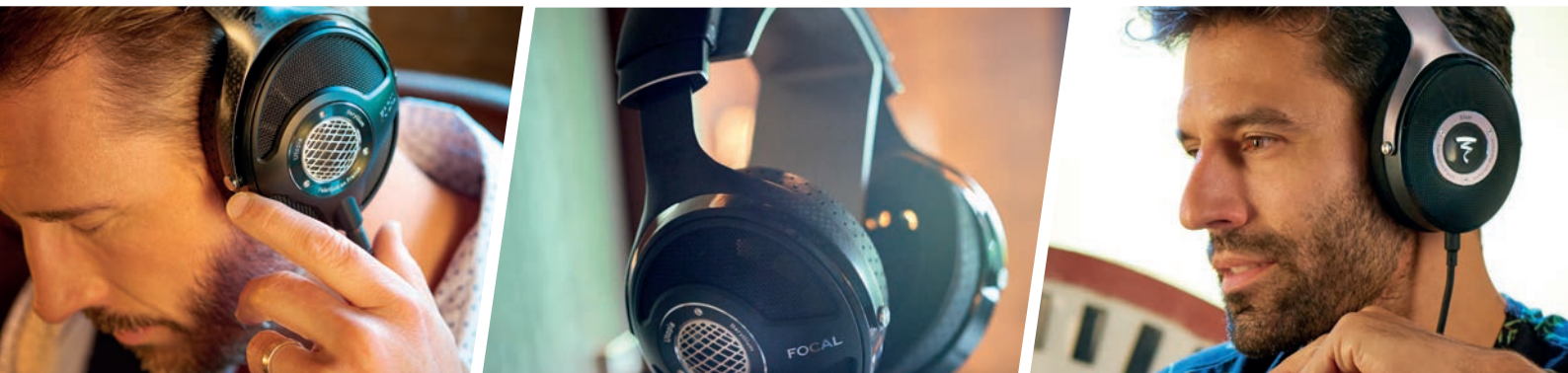
As part of the project, Focal has designed the very first voice coil without former that also features a monolayer coating to make it even lighter. The result is a voice coil measuring 25mm in diameter by 5mm in height which is actually lighter than voice coils measuring 15mm x 1.5mm used in other high-end headphones on the market. The goal is to have excellent mechanical coupling to the dome considering its diameter, and to ensure the voice coil is always controlled by the magnet's magnetic field regardless of the excursion of the moving part.

Surround

TENDING TOWARDS INVISIBILITY

The surround is clearly a key component of the moving part. When it comes to the physical demands expected of Utopia and Elear headphones, the surround needs to offer an optimized compliance and have high Xmax, to ensure they are as lightweight as possible. Once again, Focal has proved its expertise with another world premiere: the thinnest suspension ever created, with a thickness of 80 microns!

This challenge required months of work to conciliate very low mass, maximum excursion and the linearity of the moving assembly, all while ensuring perfectly balanced sound regardless of the volume.



Listen

Premium mobile headphones with Focal sound

Listen are Premium mobile headphones and like all of Focal's other headphones, they are designed in France and combine all the advantages of Premium mobile headphones, for intense listening sessions. They provide excellent noise isolation with large ear cushions that ensure Listen headphones preserve all their acoustic qualities, even in loud environments. The heat-sensitive, very high density memory foam offers impressive comfort for the listener. Listen also benefits from all the research that went into designing Utopia and Elear headphones with the aim of keeping the shape of the headband constant, regardless of the size of the user's head. This has resulted in remarkable comfort, even during long listening sessions.

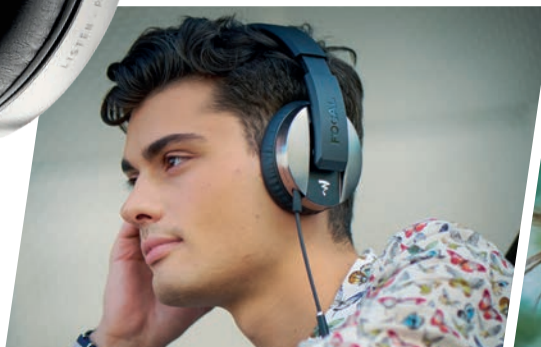
When designing Listen, particular attention went into ensuring their ability to withstand the great physical demands one has of portable headphones. What's more, the compactness of the headphones when folded away makes them an ideal travel companion.

“Premium mobile Headphones”

Listen are supplied with a flexible carrying case and an aircraft adapter. A 41/2 ft (1.4m) cable is also provided with a 3.5mm jack and a bayonet connector locking device, where a quarter-turn holds the cable in place to ensure it stays connected to the headphones, however demanding the environment. The in-line omnidirectional microphone offers excellent sound pickup, even in loud surroundings. Finally, the large remote control with just one button (compatible with all smartphones) makes it extremely simple and quick to manage calls and control your music.



In terms of speaker drivers, Focal showcases its 35 years of expertise. At the source of Listen's acoustic quality is the innovative 1 1/2" driver (40mm). A Mylar cone has been used on the entire driver, and the dome has been given a titanium coating. This ensures optimal suspension compliance and gives the dome a lot more rigidity. Thus, Listen also has an excellent dynamic range, tight bass and remarkable tonal balance.



Focal's quest for absolute acoustics is once again at the heart of our exceptional products, encapsulated by the Utopia headphones. Through these three new high-end products, Focal is stating its ambition to make the brand both a key player and a reference in the headphone market. Utopia, Elear and Listen are everyone's chance to rediscover their favourite music where realism is at the heart of listening pleasure, wherever they may be.

Availability: June 2016

Discover in details the new Focal Headphones
Series: www.focal.com/headphones



Utopia



Elear



Listen

About Focal

Since its foundation, Focal-JMLab has grown to become one of the main manufacturers of high-fidelity, integration and multimedia systems. Headquartered in Saint-Etienne, France, it is now internationally recognised as a world leader in the design and manufacture of loudspeakers for the home, speaker drivers for the car, monitor speakers for recording studio and headphones. Focal-JMLab has a wide range of high-technology high-performance loudspeakers from 150 to 140,000 Euros per pair and 79 to 10 000 Euros for car audio. Market-leader in France, it exports around 70% of its output mainly to Europe, North America and South East Asia. The company's key strength is its complete integration and quality control of the loudspeaker manufacturing process, from the design of drive units, cabinets and crossovers, to the

assembly of the finished product. This delivers a consistency of performance that stands far above its rivals. Utopia III from Focal is world renown as the finest sounding range of high-fidelity loudspeakers available. Focal-JMLab maintains an intense, continual programme of research and development into drive-unit technologies and improving sound quality. Many patents have been registered.

Focal-JMLab currently employs over 200 people in modern facilities of 17.400m² that concentrates production, R&D and management on the same site. In 2011 Focal-JMLab merged with Naim Audio limited the market-leading high-end electronics brand in the UK. Focal & Naim, the resulting holding company, has a turnover of over 82 million Euros.



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