

# aeon

## TEST.

# Goebel High End Epoque Aeon Fine

01.09.2020 // DIRK SOMMER

**It would be really nice if I could more often occupy myself with test objects as intensively as with the Epoque Aeon Fine. Already the previous model without the Aeon addition to the name had left a lasting impression on me - even if our relationship saw some clouds on the horizon. This endurance test also entailed some consequences: In the meantime I set out to buy the loudspeaker.**

Thus, I am the second Hifi Statement author in a little while to follow up to Carsten Bussler who has to admit right at the beginning of his report that one isn't impartial towards one's current test components. However, almost eight years ago I had already proclaimed in the introduction of the article about the Goebel Epoque Fine that it appeared to be one of the two or three best loudspeakers I had ever hosted in my listening room. Even back then, this happened to be more a kind of effusiveness than an appropriate professional distance. But this review is not meant to be an objective description: If our texts weren't allowed to manifest the pleasure we take in utilizing the respective equipment, we could apply for a job with the German consumer and test organisation Stiftung Warentest right away. And in the foreseeable future, that's not quite what my colleagues and I have in mind!

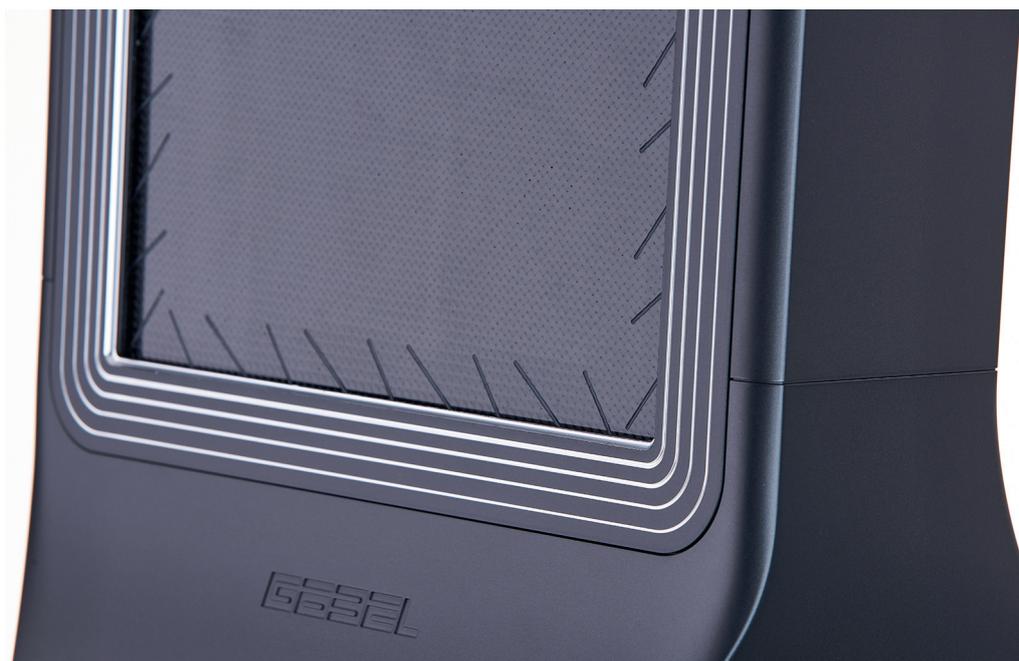
As much as I was impressed by the Epoque Fine whilst occupying myself with it because of its extremely homogeneous performance, the idea of having it in my system for a longer time never crossed my mind. After all, it didn't jar with it very well. As my aforementioned enthusiastic assessment, which I very much like to reiterate, points out, it fell far short of any kind of acoustic aspects. There were simply electrical divergences: With its minimum impedance of 1.6 Ohms at 160 Hertz, which were set as crossover frequency between woofers and bending wave transducer, the Epoque Fine stressed the Brinkmann mono amplifiers to such an extent that one



*The Epoque Aeon Fine is available in genuine, white piano lacquer with semi-gloss natural silver anodized aluminum parts or - as shown here - in genuine, black piano lacquer with satin dark space grey anodized aluminum parts*

of them emitted smoke signals into the listening room. The power-houses, which company director Oliver Goebel then heaved into my workroom to enable me to finish the test, were priced with similar tags as the loudspeakers, but didn't necessarily sound better than the Brinkmann monos when reaching the brink of their collapse. With the LumenWhite Diamond-Light I already owned a loudspeaker that was extremely expensive compared to the rest of the chain, but when a speaker appears to be so capricious that it won't work without power amplifiers that require a similar investment, this simply isn't an option for me. In addition, it is markedly difficult to find an extremely stable power pack that plays as musically as a fine small power amp. So, after having completed the test, I didn't give the Epoque Fine any kind of further consideration.

That, however, may in no case mean that I lost the contact to Oliver Goebel, as the one or other report from his showroom evidences. His company is located in Alling, which is only twelve kilometers away from my own town Groebenzell. At least as often as I made my way to Alling - and not all of my visits are documented in hifistatement - also Oliver Goebel happened to visit me in my listening room. Mostly we didn't busy ourselves with his



*The incisions in the nine-layer membrane are intended to diffusely dissipate parasitic oscillation energies so that standing wave fields are avoided to emerge. The angles and positions of the incisions are calculated exactly to a hundredth of a millimeter and are cut by a laser*



*Front and rear are each equipped with a woofer flanked by two passive radiators*

behavior of the bending wave driver, causing all moving parts such as the centering, voice coil carrier and surround to be reworked to optimize the loss behavior.

own products, but rather shared interest in i.e. a particular switch, an interesting clock or an exceptional NAS server. Whenever I needed a special cable for their integration into my system, I could always give a try to a new development from Goebel High End. Thanks to the lively exchange of both ideas and components I already heard at an early stage about the new version of the Epoque Fine, now marked by the addition of the word Aeon.

This merely isn't a facelift to somewhat generate new attention for the brand, but a radical advancement of the technology used in the "old" Epoque Fine model. Oliver Goebel reported that he completely redesigned the bending wave transducer, which to me is the very heart of the loudspeaker: Optimized motor units ensure an improved linearity as well as an enhanced loss and distortion behavior, a better thermal management and a higher maximum power rating. He stated that he improved the coupling of the membrane and the flow design of the rear basket, thus increasing the loss-free operation of the driver. However, this also required an outright re-tuning of the membrane's resonance behavior. Subsequently, he had to adapt the Thiele-Small parameters of the woofers to the changed be-



*The woofers with their passive radiators on both the baffle and the rear side have each a separate chamber at their disposal. The cabinet is thus divided into two parts*

The enclosure has undergone major changes as well: The plinth hosting the crossover has been completely redesigned, but despite being a bit too voluminous for my taste, it's jam-packed with components instead and therefore not to be made smaller. A different material and more bracings are used for a better resonance control. In order to enhance the visual quality of the new Epoque Aeon series, only high-quality, genuine polyester piano lacquer is used. Even the stainless steel feet designed for optimal coupling to the floor are now in-house made featuring silicon nitride ceramic balls. The filter slopes and qualities have been changed in the course of adapting the crossover to the further improved bending wave and bass drivers. The quality of the components has once again been improved. In the plinth of the Aeon are now to be found Mundorf Supreme Silver-Gold-Oil- and Du-elund Silver-Bypass-capacitors as well as Duelund resistors.

Even though measurements are of no relevance in Hifi Statement, I would like to share with you where Oliver Goebel achieved metrological improvements in the Aeon compared to the previous Epoque Fine model: The frequency and omnidirectional dispersion behavior has now become even more homogeneous. The impulse, phase and small signal response have also been significantly optimized. Both the increase in efficiency by one decibel and the three decibel higher power rating result in a higher maximum SPL of four decibels. Although I had never lacked volume even with the Epoque Fine, I rather missed fine-sounding, affordable amplifiers that could cope with its impedance lows without suffering any damage. Therefore, the Epoque Aeon Fine's impedance minimum of 2.8 Ohms in single-wiring mode happens to be the biggest improvement for me. Given this fact, the Aeon isn't supposed to belong to those species of loudspeakers anymore that endanger or even kill power amplifiers, which is why I immediately agreed to a review. Further technical information on the bending wave transducer, the two active woofers with two passive radiators each as well as data about the company history can be found in the aforementioned article. At this point, I would prefer to go ahead and not start repeating myself.

In December 2018, everything was set: The just as graceful as elegant looking speakers well protected in their flight cases - each thus weighing 135 kilograms - were bundled off to my listening room. Since testing their predecessors, a lot had changed in my system: Einstein instead of Brinkmann amplifiers, Artesania Audio instead of finite elemente equipment stands and, above all, converter and M-Scaler from Chord Electronics instead of Mytek's 192-DSD DAC. Instead of this – in the best sense of the word – playful daredevil, a high-resolution digital playback chain was now setting the tone, whose transients came forbiddingly close to those of real instruments, and that without leaving any trace of blurring effects. In addition, the LumenWhite DiamondLight spent their time in the living room, because my then favorite loudspeaker used to indulge me with a pleasant bass and an impres-



*The top section is machined from a solid block of aluminum weighing 60 kilograms*



*The aluminum frame for the bending wave driver is also milled from a solid block*

sive spatiality. But all of this didn't help to pave the way for the Goebel Aeon. Already the first few tracks brought back that unique homogeneity, very well remembered from the Epoque Fine, as well as the spatial imaging which left nothing to be desired. But with its incredibly accurate and fast bass, the Aeon simply appears to be a bit less rich and warm sounding. But instead of leaving myself to a rash nitpicking I should rather point out that the Goebel speakers harmonize perfectly with the Einstein hybrid power amp The Poweramp: These brothers in arms now convince with control, timing and dynamics at their best by relying on a nominal power of comparatively modest 140 watts into four Ohms! Oliver Goebel has thus succeeded in making the Aeon version of his already excellent speakers compatible with a wide range of power amplifiers and in eliciting even more euphony out of his Epoque Fine model. By the way, a pair of Ayon Epsilon Evo mono blocks has already been ordered to experience how the bending wave speaker behaves on valve power amplifiers.

The new year then started with almost never ending experiments in order to harmonize the interplay between Epoque Aeon Fine, my system and my room in an even more refined way. And it was Oliver Goebel himself that became at least as involved as the author. When the first signs of fatigue crept up on me after having listened intensively for more than an hour by at the same time only minimally changing the positioning of the speakers, I went to put on a pot of tea, while the designer of the Aeon stepped out to quickly try out a few more variations. But it wasn't only about the positioning. Since I've been using Goebel speaker cables for several years now, I at this point presumed that the end of the road might have been reached. However, Oliver Goebel's Aeon demo version came equipped with a bi-wiring terminal. Up to now I used cable bridges, which proved effective when testing the Kaiser Kawero! Klassik.

But I would also like to mention the Goebel Lacorde Statement Jumpers, which are configured with a banana plug at one end and a spade at the other. Besides providing a better resolution they also add a bit more pressure to the bass, especially when the speaker cable is connected to the woofers and the jumpers are used to connect to the bending wave unit. But this was to be considered as a temporary solution only. Since I didn't have to chase after the last dram of low frequency energy anymore due to having executed other improvements like placing the Aeon on Harmonix BeauTone Million instead of the original feet, we tried the usual connection variant: One pole of the cable is connected to the negative binding post of the woofer unit, the other pole to the positive post of the bending wave driver. The intermediary connection is then made by means of the Jumpers: The two sections are thus treated equally, thus the overall performance appearing to be more coherent and rounded off. The differences are indeed not huge, but the Epoque Aeon Fine distinctly reveals them. An absolutely accurate tool to work with!



*The Aeon is equipped with a single-wiring terminal as standard. The bi-wiring option of my sample allows for a more flexible testing of corresponding cables*

But still a little too much energy in the presence range prevented us from enjoying the speakers to their maximum potential. Finally, Oliver Goebel suggested to opt for a minimal adjustment to this area in order to compensate for a peculiarity of my listening room: If you move from the listening position towards the beginning of the sloping roof, the sound changes as soon as you step to and fro behind the speakers: The degree of reverberation increases, the tonal balance tips a little bit over into more brightness. Since the bending wave driver also radiates energy to the rear, the corresponding part of the room thus affects the overall sound. A considerable amount of

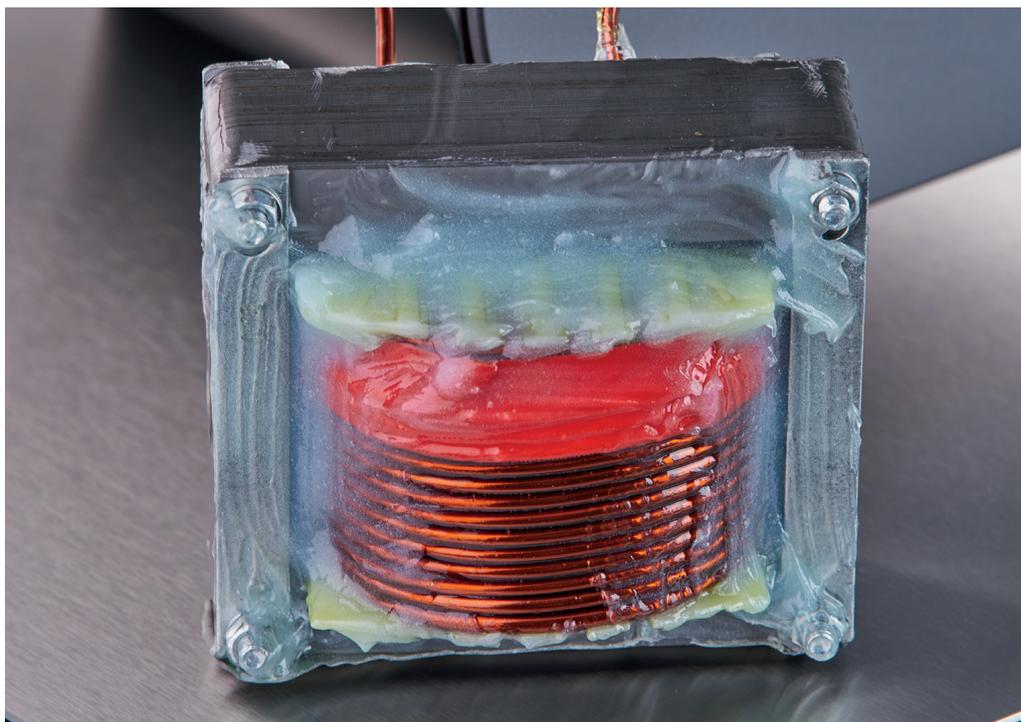


*We can't offer an inward look at the crossover, but we can showcase the exquisite components used there: capacitors and coils from Mundorf, resistors and silver foil capacitors from Duelund*

the components used in the crossover is in charge of linearizing the bending wave transducer, whose frequency range extends from 160 to 31,000 Hertz. Therefore it's possible to attenuate the presence range by about one decibel. Oliver Goebel installed a Duelund resistor as a temporary measure and the result was convincing – at least to me, but not to the perfectionist from Alling. About a week later, he replaced the single resistor with two Duelund resistors connected in parallel to account for the same value. In the end it's supposed to sound better that way. An even more important section of the crossover actually featured three of these high-priced resistors in parallel connection. I presume this particularity reveals more about the Aeon and its designer than a photo of the whole crossover that we unfortunately cannot show.

Meanwhile, I had become so attuned to the enormous speed, the meticulous transparency and the loudspeaker vanishing entirely from the sonic image that I decided to part with the LumenWhite. The Goebel Aeon explicitly outperformed it in all the criteria aforementioned and sounded - yes, I know, I'm repeating myself - much more homogeneous and, despite all the detail resolution, neither a bit analytical nor somewhat chilly: In more than ten years also the developments in loudspeaker technology didn't stop at their gates. By the way, the DiamondLight surprisingly found a buyer in Japan after I had placed an advertisement in the German Audio-Markt. But let's switch back to Goebel High End's Aeon. It allowed me - and sometimes also a colleague - to perceive things during the test runs that you necessarily don't want to become aware of. For example, when testing the SOTM switch, it left no doubt that an analogue power supply connected to the clock of the switch would ever yield a sonic advantage. The fact that both the quality of the power cable used to connect to the power supply of the clock and also its polarity were audible, I first bashfully kept to myself. When testing the peripheral companions of the Ansuz Switch, I finally dared to publish my experiences. "The high resolution of a system certainly isn't a blessing at all. Sometimes you get to hear more than you want to," is what Roland Dietl likes to say on these occasions. But if you're really out for knowing how components sound or react to external influences, there is nothing better than having an extremely high resolution at one's disposal - provided that the extremely transparent system doesn't sound too analytical or even technical. And that's indeed not what my system in synergy with the Epoque Aeon is supposed to do.

Oliver Goebel and I briefly undertook some experiments with the Basotect® absorber panels in the area behind the loudspeakers, but eventually even removed the two panels, each of the size of an LP. On the one hand, it would be quite unfair in upcoming loudspeaker reviews if my room was fine-tuned to match the Goebel speakers,



*The vacuum-impregnated zero-resistance coils are additionally baked with epoxy resin by Goebel*

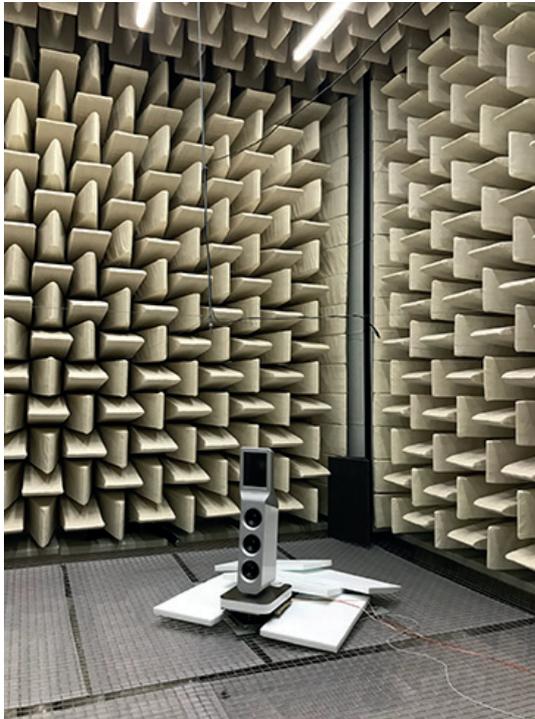


*Silicon nitride spheres serve as coupling elements in the now in-house designed feet*

and on the other hand - and that's much more important - even such small amounts of absorption material seize a quite valuable part of the Aeon Fine's spontaneous response and openness. And it's precisely the ability to reproduce transients almost as genuine as real instruments that fascinates me about the bending wave driver in conjunction with the fast, small woofers. I did already mention that the Aeon reaches an extremely high level in what previously used to be my most important discipline, a broad spatial imaging entirely detaching from the drivers. But there are a few other top-class speakers that are able to perform this way as well. Ultimately, it's the rendering of the transients that makes the Goebel Aeon unique to me.



*The lavishly equipped accessory box includes, among other things, special screw inserts for the feet, which increase the distance to the floor by 20 millimeters, e.g. for installation on very long-piled carpets, and Delrin gliders, which reliably prevent damage to the floor*



*The Epoque Aeon Fine in the anechoic measuring room of the Technical University of Deggendorf, Bavaria, where even frequencies of 40 Hertz are still absorbed to 99 percent*

As much as the Aeon enthralled me: I couldn't finally opt for them before I hadn't heard those speakers again, which had particularly won me over with their bass energy after having spent rather lean years with the LumenWhite in terms of upper bass. Under no circumstance this comment should be taken as a general criticism of the WhiteLight. The somewhat weak upper bass was mainly caused by my listening room: However, when trying out the Lumen in the listening room of a colleague before selling it, there was no lack of low-frequent energy at all. If it had similarly sounded in my room, I hadn't ever considered selling these maple sculptures. But let's get back to the speakers with the blissful bass: After encountering the equally fast and precise bass response of the Aeon, the previously preferred bass abundance now appeared to be too much of a good thing to me. The decision for the Epoque Aeon Fine was taken.

Nevertheless there still exists a narrow frequency band where the Goebel speakers interact with my room, culminating in a slight coloration. My colleague Helmut Baumgartner, who had already given me some advice on how to optimize loudspeakers, recommended to experiment a little with the set-up, since the tiled floor with the underfloor heating underneath would be anything but advantageous for the sound.

With this in mind, the principle of decoupling instead of coupling would probably be the method of choice. A series of experiments followed: with the finite elemente Carbofibre° HD, corkboards and a combination of both. The cork, applied with or without Carbofibre°, got the Aeon tamed in the presence range and let you indulge lots of bass - but also tended to let the imaginary stage shrink a lot. The Aeons simply seemed to be slowed down. Thereafter Oliver Goebel mentioned that his Hong Kong distributor uses to recommend the Revopods of the British manufacturer Arya Audio for the placement of his loudspeakers. Two weeks later, two sets of these damping feet arrived to my listening room. They sound slightly different depending on whether they are put to direct contact with the speaker's plinth or if there is a silicone ring or disk in between. But that's another story. Thanks to the Revopods, I am now entirely happy with the Epoque Aeon Fine. But that doesn't necessarily mean that the attempts at optimization didn't continue: Screws to connect the plinth with the Revopods and Ansuz' Darkz feet have already been ordered...

## STATEMENT

*I have now lived with the Goebel High End Epoque Aeon Fine for more than a year and a half, and I have come to appreciate it so much both as a working tool and as a piece of enjoyment that I don't want to part with it anymore and therefore bought it a few months ago. Conception, realization, craftsmanship and the acoustic achievements in almost all disciplines reside on an extremely high level. Only the homogeneous performance, as well as the expansion and three-dimensionality of the spatial imaging once again stand positively out from this. A loudspeaker to make dreams come true!*

## LISTENED WITH

Turntable	Brinkmann LaGrange with tube power supply
Tonearm	Thales Simplicity II, Einstein The Tonearm 12"
Cartridge	Transrotor Tamino, Lyra Olympos SL
Tape recorder	Studer A80
NAS	Melco N1Z H60/2, WDMMyCloud
Streaming bridge	Auralic G1
Up-sampler	Chord Electronics Hugo M-Scaler with Poweradd
D/A converter	Chord Electronics DAVE
LAN switch	SOtM sNH-10G i with Keces P8, Ansuz PowerSwitch D-TC Supreme
10 MHz clock	SOtM SCLK-OCX10 with Keces P8
Pre amp	Audio Exklusiv R7, Einstein The Preamp
Power amp	Einstein The Poweramp
Loudspeaker	Goebel Epoque Aeon Fine
Cables	Goebel High End Lacorde Statement, Audioquest Dragon HC, Tornado (HC) and NRG-Z3, Swiss Cables, SOtM dCBL-BNC, Ansuz Digitalz D-TC Supreme and Mainz D2
Accessories	AHP sound module IV G, Audioquest Niagara 5000 and 1200, Synergistic Research Active Ground Block SE, HMS wall sockets, Blockaudio C-Lock Lite, Acapella bases, Acoustic System feet and Resonators, Artesania Audio Exoteryc, SSC Big Magic Base, finite elemente Carbofibre° HD, Harmonix Room Tuning Disks, Audio Exklusiv Silentplugs, Ansuz Darkz D-TC Supreme adjustable, Arya Audio Revopods

## MANUFACTURER'S SPECIFICATIONS

### Goebel High End Epoque Aeon Fine

Principle:	Bending wave loudspeaker with impulse compensated passive radiators
Drivers:	Patented Goebel® Carbon Excellence Aeon bending wave driver, 2 Goebel® aluminum long-throw bass drivers (18cm), 4 Goebel® aluminum long-throw passive radiators (18cm)
Housing:	Acoustically optimized bulletproof multilayered composite material, solid aluminum acoustic baffle (15mm aluminum), top element completely machined of a solid aluminum block
Finishes:	Real piano lacquer white with alu parts lacquer anodized, in natural silver semi-gloss, real piano lacquer black with alu parts lacquer anodized, in dark space grey semi-gloss
Impedance:	nominal 4 Ohms
Impedance minimum:	2,8 Ohms at 160 Hertz (single-wiring)
Efficiency:	86dB/1W/1m
Crossover frequency:	160Hz
Frequency response:	28-31000Hz
Dispersion range:	28-31000Hz (180° frontside), 28-4000Hz (rearside)
Dimensions:	43,6x55,7cm (WxD: plinth), 125cm (total height)
Weight:	105kg per piece, 135kg per piece incl. flight case
Price per pair:	125,000 euros

## MANUFACTURER

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