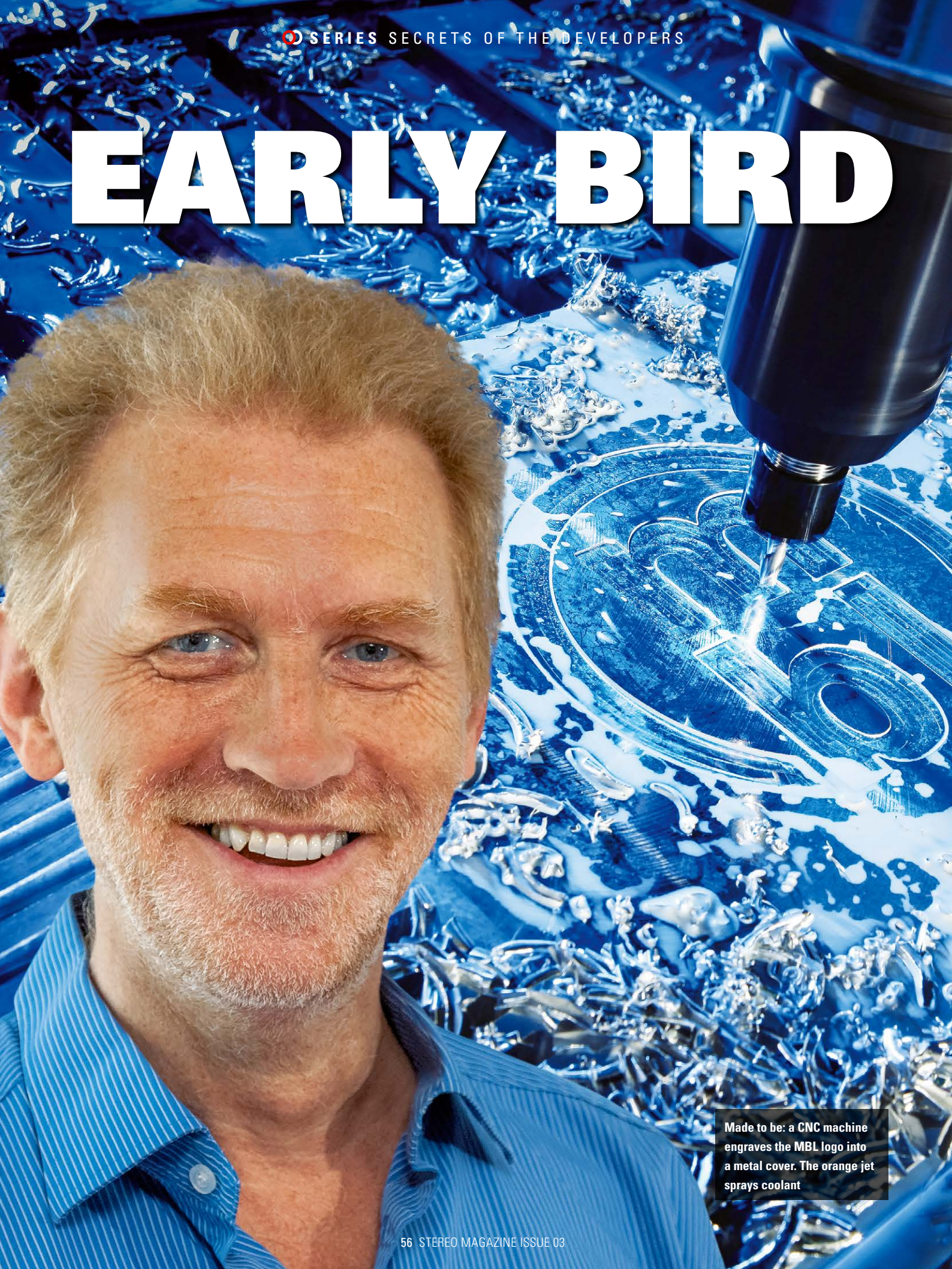
EARLY BIRD



Made to be: a CNC machine engraves the MBL logo into a metal cover. The orange jet sprays coolant

Jürgen Reis started at MBL right after graduating from college, and the sound of the top brand has been carrying his signature for more than 30 years now. Its audiophile impact has been matured over time

Visiting a trade show often gives you valuable ideas – ask Jürgen Reis. A HiFi buff from early youth, as an electrical engineering student in the 80s he strolled around the IFA - which in those days was heaven for music lovers – and found his mission in life.

His attention was drawn to odd-looking cylindrical speakers in the booth of a then-young company: an early version of the MBL radial emitters, they spread the midrange and treble sound-waves evenly in the horizontal plane. Fascinated by this unusual principle and its technical implementation, on a whim Reis applied to join the Berlin-based company.

Starting in 1982, he quickly became an intrinsic part of the company: the freshly-minted graduate, who once operated two full-size Klipsch horn speakers in his 11 sqm student apartment (!), soon made his mark with the preamp he'd built as a student – it sounded significantly better than MBL's own model. This was his start in the business, and the beginning of a beautiful - and fruitful - friendship: while the newbie began in the electronics department, with only two years he also started working in speaker development.

Here's how: Reis was a rock fan and e-guitar player in a band, one of the members of which founded the first company to make carbon fiber guitar necks. At band practices he used to expound on the advantages of this material, and as Reis listened carefully an idea started brewing in his head: what if one were to replace the original aluminum strips on the already famous radial emitter's tweeter with carbon fiber?

Development into a full-range audio company

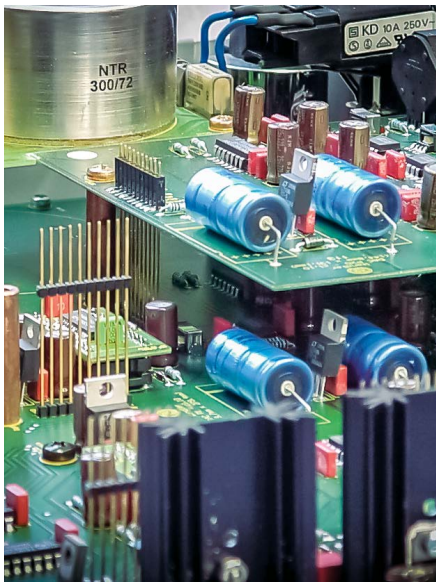
A tremendous amount of work was needed to accomplish the change, but in the end the results justified the effort. However, the lover of Asian cuisine admits that there were also areas in which he still had a lot to learn: he put in a lot of effort in the anechoic chamber to make the point source driver linear, but then realized that it sounded much too harsh in real-life living conditions. The 360-degree energy distribution, combined with the strong reflected contribution of a 'normal' room, made necessary a roll-off towards the high treble in order to achieve a homogenous sound, and for this reason, the Berlin company has long since started measuring in a „psycho-acoustic time window", which accounts for both direct and indirect sound waves.

At that time MBL didn't build power amps, so Reis set about changing that, developing the program into a full range. No matter whether preamp or power amp, speakers (which include a recognized series of direct sound transducers), or digital equipment such as CD players and D/A converters – Jürgen Reis is the mind behind these products and thus strongly defines MBL's sound philosophy.

The MBL 7008 power amp or the 1531A player already impress with their powerful, dominant appearance, energetic „torque" beyond the fundamental range, a wide spectrum, and a tonal balance with basically no artificial brightness. While many HiFi components shine like a polished billiard ball, MBL's have a sonorous touch more akin to slightly roughened leather, delivering a sound that's pleasantly non-technical and – best of all – doesn't get on your nerves. These characteristics are even more apparent in the company's higher-end products, all the way up to the fiery „Reference Line".

Jürgen Reis wants to thrill listeners: „The reproduction has to rock. There has to be movement and forceful drive. The MBL message has to get out." Hardly surprising, then, that it doesn't sit well with the committed developer when someone finds the sound of his products „nice".

But how do you get there? Rice summarizes his experience like this: „When you're in college, you believe in measurements: if something had less distortion then it just had to sound better – and if you didn't hear it that way, well, you heard it wrong." But as an active musician and sound engineer he preserved his instinct for realistic sound: „In the first years after college, I had to learn to trust my hearing again" is the way he describes his change of mind, fed by his experience that theory and practice often didn't overlap completely.



▲The sound is defined by the components, selected through measurement and listening alike

▲The frequency response of the unique radial emitters has to drop slightly in the high treble

Development as „balancing act"

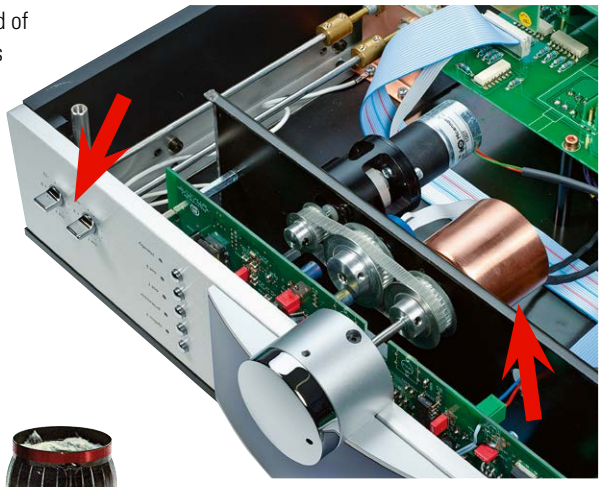
Based on this insight, he designed his measurement tools around his hearing: „Of course, a component first has to show its stuff in the lab. But when fine-tuning,

the measurements should follow the ear, not the other way around.“ When he describes his ideal sound, the word „balance“ often comes up; this not only means tonal equanimity, but also the even volume of all frequencies. In other words, he means the balance of gain and phase, i.e. its time response – and not just for speakers, but also especially for electronics.

Detail can make or break a design and this can‘t always be measured in the lab: for instance, Reis likes carbon film potentiometers for volume control, saying they sound better than the more standard, modern resistor arrays, even though the latter are more precise on paper. And from time to time he listens to new relays or resistors in testing arrangements, for good reason: „If you use a wrong relay in the device, you can go nuts afterwards – you simply can’t get the sound right anymore.“

Reis has a hard time backing his impressions of these phenomena up with rigorous scientific explanations, but he would rather observe the real world and draw his conclusions: „The first version of the 1611 D/A converter had a precise stepped switch using high-quality metal-film resistors for its variable output, and in terms of pure technology it was ideal, with excellent measurements. But our importers and dealers would contact

Jürgen Reis appreciates the sound of classic carbon film potentiometers (arrows). For instance, including the gain control, the 5011 preamp features no fewer than three of them. The radial emitter for midrange and treble uses strips of carbon fiber. (below)



GERMAN QUALITY FOR AN INTERNATIONAL CLIENTELE

When I had to go to metalwork classes during my college years, I wasn’t a big fan," Jürgen Reis remembers – but on joining MBL he was glad to be able to get to work on the milling machine to make his own parts. Today he no longer does it himself: all the work is done in the production facility.

The Berlin company produces its own mechanical components in Eberswalde, including the front plates (right), with only the electroplating (i.e. gilding, chroming, and coloring) outsourced to nearby companies, as is part of the circuitboard population process. But Reis still tries to get his hands dirty when he can.

Assembly, electronic alignment, testing and shipping are housed in the extensive production buildings (below) – recently the production area for electronics has almost doubled. Reis keeps close tabs on this section, and likes to explain his technical concepts (left) to those building the products: "I want to let everyone know what is important about a device: the employees in production should understand why something has to be done this way and not another."

Development and production are thus a coordinated team, especially since the principal staff-members have been there for a long time and know what the demands are. Owner Christian Hermeling explains that "MBL means hand-crafted and high-tech", and quality is paramount because these devices are often unpacked and used thousands of kilometers away. 90% of MBL’s output is exported to more than 40 countries – particularly Asia, where people are fanatical about HiFi nuts. There, MBL’s reputation is on a par with that Mercedes has for cars – and in that Jürgen Reis plays a very significant part.

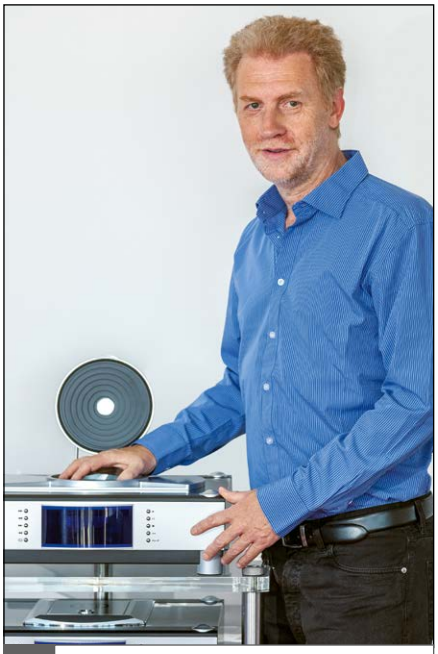
us and tell us the device just didn't sound right – it was too cool and sterile.

"I thought for a while about what makes the „sound" of a resistor or potentiometer, and after a few experiments decided on potentiometers" – he knew would be a great effort to achieve the same sonic results using a resistor ladder control.

Another point is the power potential and/or power supply of the amps: the 55-year old father prefers a „slightly springy", if potentially softer, arrangement in order to preserve the „swing in the music", especially in the bass range, as he often feels that strictly-designed concepts are too stiff and rigid.

Think differently: less is more

This should have no impact on the damping factor of the amps, even though Reis has long since stopped believing that more is always better, after he experienced how crisp, rhythmic, differentiated and sophisticated tube power amplifiers can make basses sound – they really can make many transistors with ultimate degenerative feedback seem weak.



PROFILE

- **Born in:** Erlenbach am Main
- **Hobbies:** music – listening, making, and recording – as well as being out in nature
- **Education:** Dipl. Ing. Electrical Engineering
- **Favorite food:** traditional Asian-
- **Motto of life:** Technology should also create emotions

Jürgen Reis recorded baroque music with a few musicians from the Concerto Köln in the Abbey at Kempen am Niederrhein. He says it's a pure pleasure, and helps keep him close to the natural sound

„When I heard that I told myself: 'Jürgen, you have to think differently. Bass control is not just about numbers.'" Reis then learned that the bass signal can modulate the sound: „With a power amp with the lowest internal resistance, i.e. greater degenerative feedback and thus more effective damping, the bass signal can significantly change the medium and high range, which could lead to an artificial timbre."

Reis has also studied digital filters intensively: „In a source, you can hear the time error better than frequency deviations, by a factor of three to five." This insight has consequences for the filter stages of the MBL digital devices: again, the focus lies on the balance of phase and frequency accuracy. The multi-talented technician with the emotional bent says he could go on for hours about this topic – that's how deeply he is immersed in it.

To find his own balance, Reis has picked up another passion: in addition to making and reproducing music he has also started recording it. For instance, he captured the piano playing of Martin Vatter, to be heard on the latest STEREO listening test CDVII and, since MBL works with the renowned Concerto Köln orchestra, Reis has also recorded their sound.

As readily becomes clear when you talk to him, this jack-of-all-trades (and master of many) still retains a childlike excitement when dealing with HiFi and music. And you can understand why when you listen to the MBL sound.

Matthias Böde