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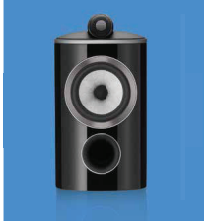
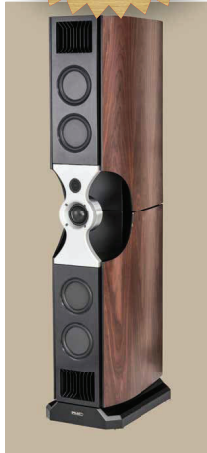
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MBL's dedicated driver production facility located in Germany



Sound dampening liquid fills base of magnetic assembly

MBL RADIALSTRAHLER 126

stand-mount loudspeaker

Chris Frankland

I am constantly struck by the diversity and variety of hi-fi products available today, and few products express those two elements more perfectly than the MBL Radialstrahler 126 loudspeaker. This stand-mount loudspeaker – designed with the company’s Cadenza and Noble Lines in mind – at once represents an introduction to the unique ethos of MBL and perhaps the ultimate expression of an omnidirectional loudspeaker designed for smaller rooms.

MBL Akustikgeräte of Germany has been around since 1979, when it brought its first MBL 100 model to market at the IFA show in Berlin that year. The company name reflects the initials of its founders – Meletzky, Bienecke, Lehnhardt. They were fans of Mahler and when they would get home after a concert, they were disappointed that they had to sit in the sweet spot of a hi-fi system to experience the same soundstage and depth of the concert hall.

No more sweet spots

And so, all MBL speakers are omnidirectional designs with a 360-degree radiation pattern. This is at the heart of the company’s design ethos. MBL says that this mimics instruments in a concert hall, recital room, jazz club or rock venue where the live sound radiates through 360 degrees. This, they believe, gives a more realistic musical soundstage and presentation than conventional single point source speakers, without forcing the listener to stay in one sharply defined ‘sweet spot’.

MBL is based in Berlin and prides itself on designing and manufacturing all its products in its own factory. It started with loudspeakers but has since diversified into preamps, power amps and integrated amplifiers, as well as CD transports and a DAC. All of which have, over the years, garnered a reputation for greatness.

All of which I was completely unaware of until, at the 2022 North West Audio Show, I went into the Computer Audio Design (CAD) room and my gaze was drawn to these remarkable-looking speakers. Their unconventional appearance and drivers made me want to find out more.

I admit, though, that some deep-seated preconceptions were haunting me – mostly thoughts along the lines of, ‘that’s a weird driver array, will it work?’ I was also aware of some ‘hybrid’ designs where tweeters built on different

principles, such as planar magnetic or ribbons, which – when married to conventional dynamic, coned bass/mid drivers – have not always integrated together seamlessly.

However, remaining curious yet sceptical, Cameron Jenkins of Stranger High Fidelity near Bath (one of two UK retailers for MBL – along with KJ West One in London – and who had brought the speakers to the show), played them to me, and I liked what I heard.

Presenting the range

The Radialstrahler 126 is the entry-level stand-mount model at £11,670 (including stands), but the range consists of six speakers in total, with the MBL 120 at £19,100, then the floorstanding MBL 116F at £28,800, the MBL 111F at £38,200, MBL 101E MkII at £65,800 and the flagship MBL 101-Xtreme at £288,100.

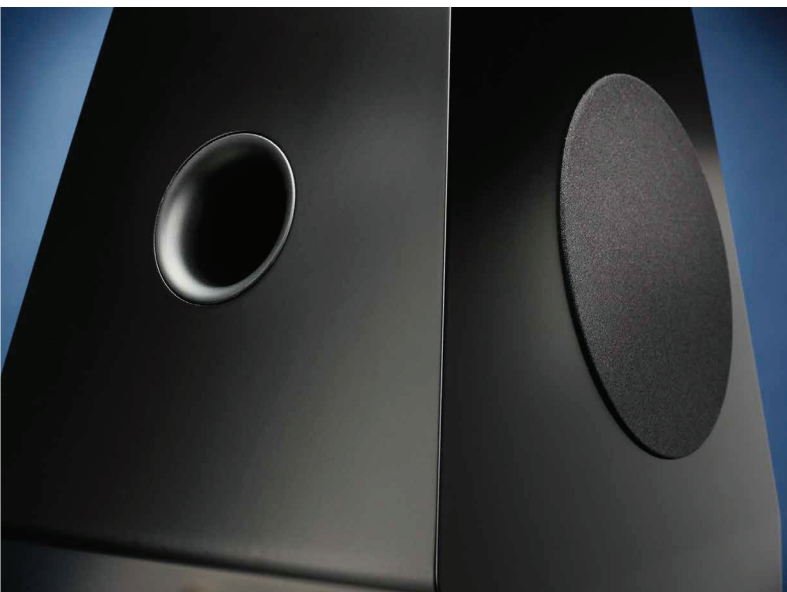
The MBL 126 is intended for rooms of up to 30 square metres as well as multichannel applications and uses the same omnidirectional Radialstrahler tweeter and midrange drivers as the MBL 101E MkII at £65,800. They are supplemented by two 130mm aluminium membrane bass drivers in push-push configuration in electrical series on either side of the 11-litre reinforced MDF cabinet. Crossover points are at 650Hz and 3.5kHz using a Linkwitz-Riley 4th order circuit (24dB/octave). There is also an extra two-pole subsonic filter providing a 5th order roll-off, which MBL says reduces cone excursion and distortion, as below the reflex port tuning frequency (50Hz in the MBL 126) the bass driver can experience extreme extension that can easily damage it mechanically.

MBL says it has increased the slope in the high pass filter of the bass driver to make the bass feel fuller and clearer, while they have also raised the curve of acoustic energy in the lower frequency range by 3dB to make the speaker sound ‘bigger’.

The speakers are offered in white or black satin, or piano gloss finishes. The review pair was in piano black and looked superb. They measure 252mm wide by 603mm high by 343mm deep, and are 1,202mm high on the stands supplied – that’s around 47 inches to the very top of the metal perforated grille. The stands fit snugly into a recess on the base of the speakers and are firmly locked in place with four Allen bolts.







- » The MBL 126 has a nominal 4 ohm impedance and a quoted sensitivity of 81dB with a maximum linear SPL of 99dB. Power handling is rated at 180 watts.

Radical radial

So how do they achieve this omnidirectional presentation? Well, the secret, of course, lies in their unique, spheroidal HF and MF Radialstrahler drivers. These use a series of independent petal-like segments called lamellae. These resin-impregnated carbon fibre petals form the sphere you see on the outside.

For the HT37 tweeter, the 24 lamellae are 130 microns thick and 5mm wide. They are fixed to a thrust bearing at the top and to a single-layer 37mm voice coil at the bottom, which floats in the air gap and so has no spider.

The company's latest MT50 midrange unit has 12 lamellae, each 12mm wide and 200 microns thick. MBL says no two blades are cut to the same width to reduce the risk of resonances. The headstock is now smaller, again to reduce the risk of resonances and the magnet is slightly wider and exactly centres to the voice coil, again meaning no spider is required.

The voice coils for both drivers mount on a central rod that locates the top and bottom plates and sound deadening panels are fixed to the rear of the lamellae. Acoustic wool is also used inside the chamber of the tweeter and midrange units.

I asked the designers in Germany what the main advantages were of this design. They said that ribbon and planar drivers only radiate waves front and back, whereas the lamellae used by MBL radiate sound waves over 360 degrees. The other benefit is that the bonding of the aluminium voice coil directly to the aluminium diaphragm delivers better heat dissipation and gives a very high thermal load capacity, while the lack of a spider means a more precise response, better speed and less loss of energy.

I found that positioning the MBL 126s was critical. They are designed not to be pushed into corners because of the fact they radiate sound over 360 degrees. I tried them around one foot from the rear wall/corner, but the sound seemed a little close-in and so in the end I found that around 24in to 28in from the rear wall was ideal, with a slight toe-in. I tried fitting the spikes to the stand, but for the distance I was sat from them, I felt that raised them too high and, in all honesty, rather to my surprise, I found they sounded better without them. When I called Cameron at Stranger High Fidelity, it was good to learn that he had found the same.

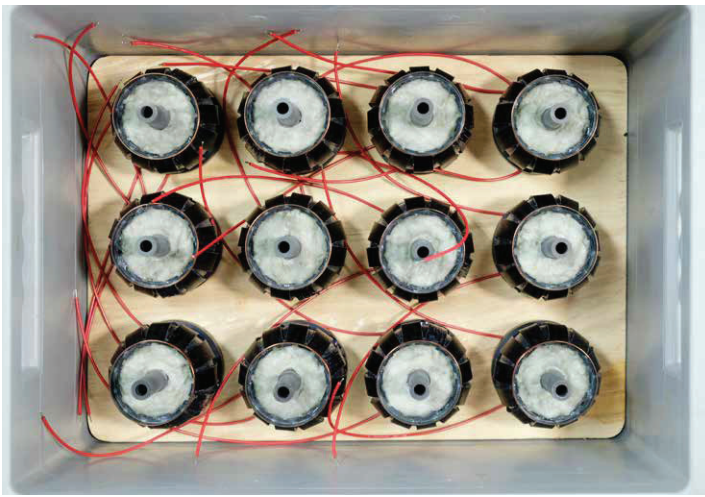
Sound quality

Knowing that I am currently using an Audio Note Meishu Tonmeister, which is a single-ended 300B design with around 10W nominal power, Stranger High Fidelity also lent me an MBL Noble Line N51 integrated amplifier, which is a transistor design rated at around 380 watts into 4 ohms. This meant it was simple for me to assess whether the valve amplifier was driving the speakers well enough by swapping between the two.

My sources were an Audio Note CD5.1x CD player and TT3/Arm2/lo1 turntable played through an S9 transformer and Puresound valve phono stage.

I have got into the habit of always kicking off my listening to a new product on the same track – and that is the wonderful cover of Johnny Nash's 'I Can See Clearly Now' by ace jazz guitarist Peter White on his *Groovin'* CD.

Straight away I was impressed by the way the MBLs conveyed the body and weight of his guitar at the same time as capturing the attack of the strings and how each note was being played. The lilting bass line was tight and tuneful when it kicked in and helped drive the track along rhythmically, as it should. Drums and percussion were detailed and dynamic with delicate detail well handled. It



Sound dampening wool fills inside of midrange driver



MBL midrange spider-free voice coil and carbon-made centre rod prepared for magnet assembly



MBL tweeters with aluminium cover plate about to be measured for perfect matching



Silicone and sound dampening foam added to the inside of midrange's woven carbon fiber segments



Drums were tight and dynamic, and the bass line was controlled and deep but still moved at a good pace. The MBLs did all I could ask on this track.

was also nice to be able to follow the accordion line, which so often seems to get subsumed in the mix. All in all, then, a great start and I could hear clearly now what it was that attracted me to them when I heard them at the show.

From LP this time, I tried the beautiful track 'If Only for One Night' from Luther Vandross's *The Night I Fell in Love* album. Instantly the MBLs were sending shivers down my spine as surely one of the greatest vocalists of all time put his all into this wonderful song. The emotion and power of his voice were wonderfully conveyed, keyboards were well separated, and that powerful bass line was tight, dynamic and tuneful. And when Luther really pushed a note, we got power without any of the harshness or glare you can get with poor equipment. This lovely ballad was ably handled by the MBLs without any nasty artefacts or annoying colorations.

Next, I tried 'Red Lights in the Rain', one of my favourite tracks from the superb *The Secret of Climbing* album that Canadian guitarist/singer/songwriter Stephen Fearing did with Rega (see my interview with him in issue 210).

All the vocal prowess, emotion, and power that I expect from Fearing was there, as he played solo with his lovely old Manzer Cowpoke acoustic guitar, which had the body, fullness, attack and power that I would expect. It is a simple track, simply recorded, but it separates the good from the bad with hi-fi and having heard Fearing playing live in a small venue in the UK just recently, I can say that the MBLs made him sound just like I remember. An excellent performance.

Next on the TT3 was jazz singer/songwriter/piano player extraordinaire Ben Sidran's *Bop City* album from which I chose 'It Didn't All Come True' to put the MBLs through their paces further. This is a really well-recorded track with superb dynamics and power on the piano, drums and bass and all of these were conveyed with perfect grip and control by the MBLs. Sidran's vocals were articulate and packed with emotion and there was power in his piano play where there needed to be. Drums were tight and dynamic, and the bass line was controlled and deep but still moved at a good pace. The MBLs did all I could ask on this track.

Finally, I put on the 'Build Me Up' from *Bones* by Sarah Jarosz – sort of Americana-cum-folk, if you like – from the album of that name.

From the first few notes on her mandolin, I knew I would enjoy this track on the MBLs, and I did. Her voice was portrayed with all its delicacy and emotion, while the viola, violin and cello backing was laid open in all of its fine detail

and intricacy. The rhythmic ebb and flow of the track came across well and I was pleased with the detail, dynamics and delicacy of her mandolin and the other stringed instruments.

Conclusion

The MBL Radialstrahler 126 are maybe a trifle polarising in terms of their looks (we English describe this as 'a bit Marmite' after the yeasty spread that is at once popular and unpopular), although I rather liked their appearance. But there is no doubting they are superbly made, and that the standard of finish is exemplary. And while the Radialstrahler drivers may seem to perch incongruously on top of a conventional box, they integrate perfectly and seamlessly with the dynamic drivers used for the bass and the resultant sound is detailed, dynamic, tuneful, and musical.

I enjoyed my time with them tremendously and can say with confidence that if you are in the market for a pair of speakers at around £10,000 to £12,000, the MBL 126 needs be on your shortlist. And although I found that the Audio Note Meishu Tonmeister drove them perfectly well in my room at the volumes I usually listen, those with larger rooms, who like to listen loud, may need to opt for something more powerful. +

Technical specifications

Type three-way, omnidirectional stand-mount loudspeaker

Woofer push-push 2 × 12.5 cm

Midrange Radial MT50, CFK (MBL)

Tweeter Radial HT37, CFK (MBL)

Sensitivity 81dB

Nominal Impedance 4Ω

SPL 99dB, linear

Power handling 180w (nominal)

Acoustic Centre 107cm

Cabinet Volume 11 litre

Finishes Gloss or Satin in black/gold, black/chrome, white/gold, white/chrome, artich silver/chrome

Dimensions (W×D×H) 25.5 × 34.5 × 60cm (122cm on stand)

Weight incl. speaker stand 24kg

Price £10 600 (£11 670 with stands)

Manufacturer MBL Akustikgeräte

🌐 mbl.de 📞 +49 30 230 05 84 0

Dealers

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Michael Fremer, Stereophile