

MEET YOUR MAKER

Karl-Heinz Fink

by Alan Sircom

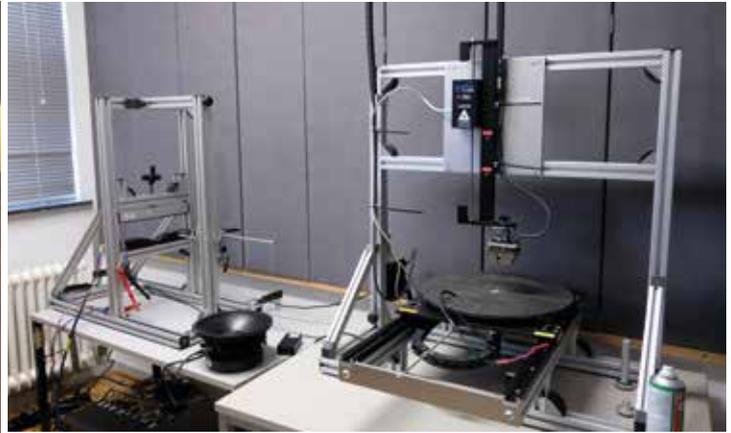
This one's a little different, because Fink Audio Consulting and Karl-Heinz Fink are not so much 'maker' as 'gun for hire'. Well, almost: the company does make the Finkteam WM-4 loudspeaker (see box on page 104), but the company is a design studio of loudspeakers for a surprising number of brands. His designs include models for Tannoy, Mission, Naim, and Q-Acoustics, but many of the big names in European home and car audio have quietly called upon Karl-Heinz and his team. As a consequence, the small design studio in Essen, Germany is a hot-bed of creativity and objectivity. Each room in the labyrinthine office houses cutting edge design and measurement instrumentation, and there can't be many freelance loudspeakers who have their own anechoic chamber. We spoke to Karl-Heinz about his background, the design team, and the future of Fink. Then we got to hear the Finkteam WM-4, in the place where it was designed.

With the benefit of 20:20 hindsight, our date of visit was probably not the best. Influenza was moving through the Fink office, and where there is usually a bristling community of designers huddled over CAD/CAM programs, or operating one of the many test, measurement, or prototyping machines liberally dotted around the plant. Instead we got empty workstations and abandoned coffee cups. ▶





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▶ In another way, however, this didn't matter. There are always people at workstations in every factory or facility. What really impresses about Fink – the man, the design team, and even the loudspeaker brand – is the degree of thoroughness that goes into everything. A loudspeaker designer for hire could be a guy with a good head for numbers, a good pair of ears, and copies of Autodesk and Spice on his computer. Fink has its own anechoic chamber, runs a full Klippel test facility, an extraordinarily well-engineered listening room, state-of-the-art modelling software, and – 'flu notwithstanding – a team of experts capable of working on every aspect of modern audio transducer design and implementation.

It isn't hard to see where this attention to detail stems from. Karl-Heinz Fink is all about the details. Like many in the audio business, he shares common man-gadget passions; watches, cameras, guitars, pens, etc. But for many these are casual interests. 'Casual' does not exist in the Fink lexicon: an hour in his company, and I know more about the history of the cartridge (both 'phono' and 'ink') than I thought possible. His affable, gentle-giant demeanour and seemingly laid-back lifestyle belies an information-sponge, steel trap of a mind.

Like many designers in audio, Karl-Heinz Fink's route into the business was through being an enthusiast. In his teens, Fink built a number of audio electronics and loudspeaker projects, and was a confirmed DIY-er. Like many who take DIY project building seriously, he migrated from cookbooks and plans to designing his own loudspeakers. But unlike many of his peers in Germany at the time, he was more impressed by British loudspeaker designs than German ones.

Soon, Karl-Heinz took his passion to new levels and started working in the hi-fi industry, in a company making, distributing, and selling DIY loudspeaker kits and components. During this time, he began designing commercial loudspeaker kits and was mentored by the late Ted Jordan, of ALR/Jordan fame.

Briefly in the 1980s, Karl-Heinz went down the audio reviewer path, but he was later released under caution. Around this time, he was approached by a family member to help out a friend who was designing a loudspeaker. This turned from a short project into years of design and development, but ended with Karl-Heinz Fink's first brand – IQ – and working in a freelance design capacity for Yamaha. The rest is history. ▶

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► Karl-Heinz Fink describes himself as ‘lazy’, but any notion of him lying round watching TV while bingeing on Cheetos should be laid to rest. Fink’s version of ‘lazy’ means ‘not reinventing the wheel’. He uses sound engineering practice to design something, and makes sure that can act as a form of module for subsequent designs. However, this is not reusing one client’s design for another client. Because Fink Audio Consulting has such a reputation in the audio world, it can also take time to perform genuine blue-sky project research into audio engineering. This is normally the preserve of universities, but with many audio courses now becoming more about coding than product design development, Fink’s lazyness is the key to many important developments in audio product implementation.

This is especially true of DSP. Unlike many traditionally trained loudspeaker engineers – who often view DSP at best as a necessary evil and often as either an intrusion or an abomination – Fink is convinced good modern design should be a blending of hardware and digital processing. “It’s more than just about reducing the size of the cabinet,” he said, “that’s a useful benefit. But I’d love to see it used more widely because it can improve on what we can already do with acoustic engineering. An active loudspeaker with DSP can clean up group delay and the distortions that creates. I can’t do that mechanically.”

Discussing DSP shows Karl-Heinz has also approached an important aspect of audio that rarely gets touched upon: passing the baton. Fink’s not 900 years old, but neither is he 23 anymore, and if there is a company that bears his name, he has a responsibility to nurture and develop the people who will carry that name. “No, I have no plans of retiring just yet,” he laughs, “but you always need to think about the future.” Which is why many of his team (when they are not swallowing down ‘flu remedies) are in the early stages of their careers. Fink, as ever, is charmingly pragmatic about this, “As I said, I’m lazy. There’s no point in me spending months learning how to think like a 26 year old software engineer, when there are 26 year old software engineers I can hire that will come up with a solution in a few days.”

However, Fink, like many of his contemporaries, is concerned about the lack of analogue electronics training in young graduates. “They often come here with a very little

analogue electronics under their belts because colleges and universities concentrate on digital electronics and design today. Some just can’t handle the step back to hardware design, but most learn fast.” Fink doesn’t see this as arrogance, however. “A few think our ways are stupid and need to change, but most of them realise that’s just years of working solely in digital speaking. Although, there was this one guy...”

The separation of the different aspects of the Fink team might seem somewhat confusing. They were to me. “Well there’s me!” explains Karl-Heinz, “then there’s Fink Audio Consultants, which is the team here who help develop new designs for audio and automotive. Then there’s Finkteam, which is also the same design team from Fink Audio Consultants, and some others, who came up with the WM-4.”

I wanted to know more about the loudspeaker and how it came into being before the listening test. “We just wanted to try something with a 15 inch driver,” he explained. “I mean, you can really hear all the music that was mixed on something like that with huge bottom end. So, we showed the original as a proof of concept at Munich 2016. After the show we got some reaction from distributors and a lot of press coverage, and then we said, okay we’ll do it!”

Easier said than done. “Nobody taught me before how much work it would be! We started to design that speaker and I almost lost my mind.” It was clearly worth the effort, though, as it might not be the last design from Finkteam. “We are working also on a smaller model,” Fink explained, “because not everyone can afford a loudspeaker for that sort of money. You don’t find people that just buy what you have to get distribution. I’ve always liked not to go too crazy with prices.”

Of course, as this is the company’s own design, it is also a testbed for concepts that will inform the next generation of Fink Audio Consultants designed loudspeakers. This has already happened. “There is a spin off from what we’ve tried on the WM-4.” says Fink, “It’s the kind of technology platform we use to try things out and do things in a different way, and this is how you get the Q Acoustics Concept 500. How the pressure equalises there originally came from the box from the W.M. because we tried it the first time. So everything gets a kind of technology update. You try old things and new things, but basically it’s a chance for us to have some fun!” ►

The Finkteam WM-4: listening to the washing machine!

Finkteam was struggling to find a name for its first loudspeaker. “It looks like a washing machine” said one designer, pointing at the wide base and the 15” drive unit. That was it – the WM-4 was born. This is at once a proof-of-concept and the best loudspeaker Fink and his team (hence the name) can come up with at this time.

The design is a three-way, two-cabinet model, with the bass cab containing a custom 380mm bass driver with a corrugated GRP-impregnated paper cone, a massive magnet, and a cotton (instead of rubber) surround. This is joined by the top-box, which features an AMT ribbon tweeter flanked in vertical D’Appolito style by twin custom made FMWD (flat membrane, wide dispersion) drive units not dissimilar to Balanced Mode Radiator designs. This makes for a relatively straight-forward fourth order Linkwitz-Riley crossover, but also uses a cabinet with compliant spacers between bass and mid/top sections, to make sure cabinet vibration does not cross from one cabinet to the next.

This is not a review. This listening test was performed after walking through the Fink plant and hearing the loudspeakers in their natural habitat of the Fink listening room. They are, however, available to the general public. The price is still to be finalised (it’s somewhere in the mid-to-high five-figure mark) and for that money, you not only get the loudspeakers, you get Karl-Heinz Fink turning up at your door personally to fine-tune the installation. But a loudspeaker of this size and magnitude is going to be hard to audition at first.



The Washing Machine is incredibly detailed and analytical. This is the kind of loudspeaker that will tell you when a piece of music is not entirely right, whether that means the wrong type of format, some error in the coding or decoding, or simply you bought the wrong mix. Where many speakers are of sufficiently high-distortion or of limited bandwidth and dynamic range to mask these limitations, if you want to hear just why MP3 is so vexatious, try the WM-4s.

This makes the Finkteam loudspeakers appear like they are a bit ruthless, and that’s not the case. There is a subtle difference between ‘ruthless’ and ‘revealing’, and the WM-4 is revealing enough to highlight that difference. Put on a recording that isn’t undermined by signal or data compression and you get insight into the music and the recording. At that point, ‘revealing’ is a great thing. It gives insight into the music that you will struggle to find elsewhere (or at least, elsewhere at anything like this price). The sound has great texture, very good soundstaging and solidity of images within that soundstage, and excellent vocal and tonal articulation. You hear singers breathing – not as if you were researching the chest cavity performance of vocalists – but in an organic manner. It’s extremely addictive.

Perhaps most of all, however, this is a very big loudspeaker that ‘times’, when it really shouldn’t. There’s no way a loudspeaker with a whopping great big bass unit and a port you could put your fist through should be able to keep a precise beat and a sense of temporal order in the way the WM-4 can. This is not the last you’ll hear of The Washing Machine +