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Magico's magical V3 Loudspeaker



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In his own words...

People say dog owners start to look like their pets. In this case, Alon Wolf of Magico is very like his loudspeakers; outspoken, self-assured and – just maybe – right. I asked him how Magico came into being and what processes go into making a truly world-class loudspeaker...

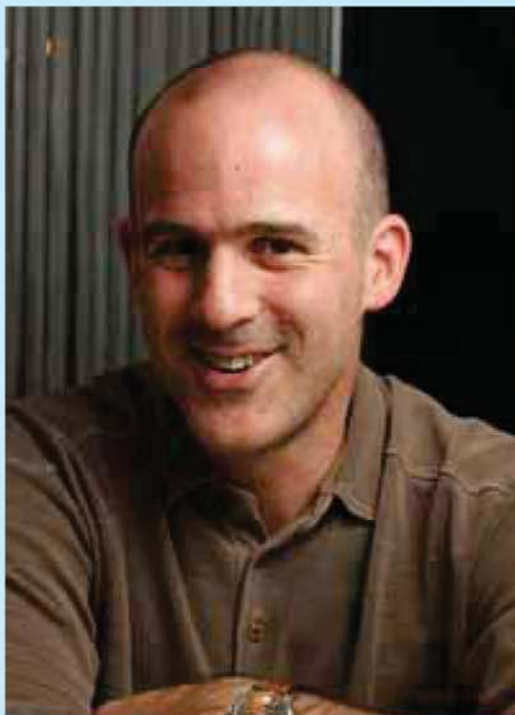
AS: Why did you begin to design loudspeakers?

AW: The process started from frustration. I've been buying loudspeakers for almost 30 years now and I've always taken them apart and tried to improve on them. About 15 years ago, some people heard what I'd been doing and liked it enough to ask if I could build loudspeakers for them. Every time I built someone something, I learned a little

range. And you want mass, so that the tweeter will not excite the structure. An MDF box is damped – and can be massy if you make it heavy enough – but it hasn't got the stiffness. Aluminium is a very good material to build a loudspeaker box from, but you need to make it big to get the mass. The energy you lose to the box is minimal. With models like the V3 and the Mini, we mount the drivers on thick aluminium plates for the stiffness then couple it to the birch ply for the damping. And that makes a massy cabinet.

AS: How much research went into designing the drive units?

AW: We have a museum with just about ever driver that was ever made, that's how we figured out what we could use. That's part of the reason Magico doesn't use beryllium tweeters or diamond tweeters, or ribbons – no matter how good they are, they stand out. We don't necessarily do everything in house – a helicopter rotor blade manufacturer makes the Nano-Tec cone material for example – but everything other than the tweeter (a ScanSpeak Ring Radiator) is our proprietary design.



more in the process and improved the speakers. Five years ago, a distributor in Hong Kong asked me to build the ultimate two-way. So, I built the Mini, which because it was built properly, threw people off – no one had heard a two-way standmount design that has more extension than a lot of big speakers, and more resolution than anything else that was out there. The guy in HK backed down thinking it was too expensive, but others started buying it, then the Absolute Sound heard it, and the rest is history.

AS: The V3 cabinets are extremely heavy. How and why?

AW: You want your bass driver to be mounted in a stiff enclosure so that the resonant frequency of the structure will not interfere with the band pass of the bass driver. You want to damp the midrange, because you want the resonant frequency to be outside that driver's

AS: You mentioned Nano-Tec just now. What's the technology behind the material?

AW: The Nano-Tec sandwich cone is made of an asymmetrical carbon nano-tube polymer composite. If you put it upside down on the floor and stand on it – with someone on your shoulders – it will not buckle. It's only seven grams! It's the stiffest composite that I know of. So you can build cones that stay pistonic throughout the entire audible range.

AS: Why do you mount the bass drivers to the rear of the baffle?

AW: Everything that we do is coupled to metal, the coupling is almost perfect and it will stay that way, because it's coupling metal on metal. There's no hardware that sees wood at any moment in that speaker. This is because when you bolt the driver to an MDF baffle, you cannot go past three Newton-pounds torque without damaging it, but on our aluminium cabinets, we go up to 11!