

High Concept

What happens when a successful entry-level speaker brand goes upmarket? **Ed Selley** finds out

t is hard to believe that it is now over a decade since Q Acoustics first began selling speakers. As a brand developed under the banner of Armour Home Electronics in 2006, it has successfully managed to swiftly migrate from newcomer to become the new benchmark for entry-level speakers (see our *Group Test* starting on p24). Even when it pushed its designs slightly upmarket with the arrival of its first Concept models in 2014, it delivered speakers that remain some of the best at their price

The sheer depth and impact that it delivers is utterly addictive

points today. With barely any speaker markets left to conquer under £1,000, it was inevitable that eventually the brand would move more upmarket.

Instead of moving up just one increment, the Concept 500 pitches into more rarefied territory altogether. A long time in development has resulted in an extremely sophisticated loudspeaker that's still undeniably a Q Acoustics product. This has meant taking technologies and design features recognisable on its lower-cost models and developing them more for the upmarket sector.

Nowhere is this more apparent than the cabinet design. The Concept 500 takes the 'Gelcore' (see boxout) system first seen on its Concept 20 and 40 models and runs with it. Whereas the more affordable 20 and 40 limited its application to the vertical sides of the cabinet, the Concept 500 uses it on every surface including the top and bottom. Furthermore, instead of the two layers of MDF with a single layer of gel, here it is beefed up with three

layers of MDF and two layers of gel. The result is a speaker that promises a level of rigidity and damping that is way beyond more conventional cabinet construction arrangements.

The cabinet boasts extensive internal bracing, calculated in order to ensure the maximum effectiveness. Q Acoustics refers to it as "point-topoint bracing" meaning that stiffening is only applied between the relevant points rather than at locations convenient to the manufacturer. There is also a series of Helmholtz resonators fitted to reduce stray energy emission. This is an exhaustively engineered and immensely solid enclosure.

The drivers are also true to the company's ethos and outwardly look very similar to those used in its more affordable speakers. A 28mm soft dome tweeter is joined by a pair of 165mm mid/bass drivers in a woofer/tweeter/woofer layout that is visually

DETAILS

Concept 500
ORIGIN
UK/China
TYPE

42kg DIMENSIONS (WxHxD) 400 x1,150 x350mm

tweeter
• 2x 165mm mi
bass driver
• Quoted sensi
90dB 1W/1m (6

Armour Home Electronics
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website qacoustics.co. almost identical to the much more affordable 3050 floorstander (*HFC* 398). The mid/bass units boast a significantly beefed up voice coil and considerable attention has been paid to isolating them, while the tweeter is completely decoupled from the

cabinet. This extends to all drivers being mounted to the reverse of the front panel and results in all fastenings being invisible.

Sound of silence

During development, the drop in noise from the cabinet revealed that notionally silent components in the crossover became audible in the absence of noise from elsewhere. A full re-work of the crossover was the result, with components that drop the noise levels to Q Acoustics' and design consultant Karl-Heinz Fink's satisfaction. Even judged by the standards of a £4,000 loudspeaker, the attention to detail that's on show here is impressively fastidious.

It also looks the business, too. The industrial design manages to look about right at the price while keeping a family resemblance to its more affordable Concept siblings. Two features in particular help it to carry this off. The decision to blend a lacquered cabinet finish with a real-wood inlay section at the rear is very eye catching indeed. The wooden section lightens what would otherwise be a fairly dark and oppressive-looking floorstander (finished in black gloss) and is a rich, distinctive style twist. The other is the chrome foot section, which adds stability to the speaker and provides a



The layout of the

drivers looks almost identical

to its 3050 sibling

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little extra point of detail. The build quality is excellent and even the slightly prosaic grilles are smart.

Tweeter output can be adjusted to better work in the space in question as can bass output. There's a sizeable bass reflex port at the rear, which can be tweaked for the amount of bass output via a large two-piece bung. When both sections are used, the port is almost completely blanked off but removing the centre section allows for a degree of flow through.

Sound quality

Connected to a Naim Supernait 2 and Naim ND5 XS network audio player (HFC 352). I find that leaving the treble output flat and keeping the outer section of the foam bung in place in the bass reflex rear port yields the best results in my listening room. After a little time living with the Concept 500, it becomes clear that the extensive work on the cabinet has produced a floorstander that sounds like six beautifully integrated drivers suspended in free space.

The lack of colouration makes well-recorded material sound

startlingly immediate. A 16/44.1 rip of David Gilmour's This Heaven rises from complete silence and generates a soundstage that is solid. three dimensional and filled with instruments that have nigh-on perfectly tonality. When Gilmour's vocals arrive, they are locked centre stage between the speakers and are so believably real that you realise that what you previously thought was pretty accurate reproduction was some way wide of the mark.

This realism is aided in no small part by the extremely effective integration across the frequency response. Even when provoked with the less than stellar recording of Foo Fighters' album One By One, it remains exceptionally balanced and refined. This makes it extremely easy to listen to for long periods and while it shines with highresolution material – a 24/96 file of Craig Armstrong's Crash is simply superb – what is more notable is the level of performance it brings to less polished productions.

This transparency means that it will reproduce any harshness or



is between the Concept 500 and ATC's SCM40 (£3,750) that was part of the Beautiful System in HFC 425. The SCM40 is detailed, open and accurate. Compared with the Concept 500 it eels slightly constrained and boxy, although that vonderful midrange lome gives it exceptional detail retrieval. The Concept 500 strips away a level of colouration you don't even appreciate being there with the SCM40, ppening out the performance further. Thanks to that sizeable bass port, the Concept 500 also goes significantly lower than the SCM40. It is slightly more expensive, but Q Acoustics has the

performance edge.

aggression further up the audio chain, but partnered with any sensitivity this is an impressively forgiving speaker. It won't be a magic bullet to improve a poor system, because it's highly likely that the failings you are trying to deal with will instead become even more apparent. This is hardly the fault of the Concept 500, but it is certainly something that it's important to take into consideration. While you need to think about the sonic presentation of any partnering equipment you team it up with, the good news is that you won't need to have huge reserves of power to hand. Rated at 90dB, the sensitivity is usefully high and although impedance dips to a minimum of 3.70hm, nothing during my time with it suggests that this is in any way a difficult speaker to drive.

It has no difficulty in demonstrating enormous scale when required. Switching to vinyl via a Roksan Radius 7 (HFC 423) and spinning the newly released Catalog boxset from Kraftwerk, the Concept 500 is a fabulous partner. The sheer depth and impact it brings to the new mix of Aerodynamic is utterly addictive.

Even very deep, fast basslines don't seem to result in any bloat or overhang

Q Acoustics quotes a roll-off at 41Hz, but in a normal lounge – even with the bungs in place – I suspect it goes quite a bit lower than that, and with the same effortless lack of boxiness and colouration as the upper registers. Even very deep, fast basslines don't seem to result in any bloat or overhang, and provided that some attention is given to its positioning in the room, it remains fast yet controlled at all times.

Perhaps most importantly, the Concept 500's proficiency doesn't get in the way of its ability to have fun. Listening to the joyous Waste A Moment by The Kings Of Leon, I notice the wonderful interplay between the Followill brothers and that superbly natural tone with the instruments and vocals, but more than anything else there's an infectious level of enjoyment. There's a simple sense of joy that stems from the presentation being so unadorned. The beauty of this is that music doesn't need to be especially ballistic for it to make itself felt and the slow, simple Blues of RL Burnside's Too Bad Jim has a joyous playfulness and



Robust binding posts allow for bi-wiring

infectious sense of timing.



The Concept 500 enjoys the most extensive use yet of Q Acoustics' Gelcore technology. Gelcore aims to produce some of the levels of inertness and rigidity that can be achieved in very high-end speakers, but at a more terrestrial price point. Instead of a single layer of dense material - that can be very expensive - Gelcore suspends a layer of non-setting glue between at least two thinner ayers of MDF. The resulting sandwich is more inert than

an equivalent thickness of single material. Additionally, resonant energy is absorbed by the fluid layer and converted into heat with further improvements to the measured characteristics. While cheaper than more conventional solutions, the production tolerances required to build such cabinets are considerable and by adding a second gel layer in the Concept 500, Q Acoustics has a considerable head start in this area.

Conclusion

This is an outstanding speaker that shows an all-round depth of talent that would be impressive even if the price were considerably higher. Its ability to remain transparent so that you can simply get on with enjoying the music is something that Q Acoustics can be very proud of, as it redefines expectations at the price. It's comparatively unfussy about its environment or the electronics that integrate with it as part of a system and should be top of any shortlist if you're looking to spend £4k on a floorstander •



Q&A Alex Munro Brand director, Q Acoustics



ES: How did you settle on the Concept 500's design goals and price point?

AM: We set out to achieve a significant step forward in performance with the only brief on price being that it should be less than £10,000 a pair. We believe we have achieved a very significant step forward in performance and are very pleased to have done so at the very competitive price. The team decided to use brains and technology and not budget to solve problems and that gave us some interesting learning opportunities like for the air-core main inductor not to be aurally intrusive. This was significantly more expensive than the normally used silicon-steel laminated core inductors with their higher distortion, but was too exposed due to the much lower noise cabinet and the very low distortion drive units.

Is this the ultimate expression of the Gelcore concept, or are further developments possible?

With the measurement and analysis tools we have combined with the ability to computer model it's easy to test new ideas. So, we wait and see.

Will features like the adjustable treble output be seen in other Q Acoustics speakers going forward?

On the higher-end speakers, ves. We feel the small adjustment helps give that extra flexibility in terms of the difference between lively, normal and over damped rooms. The interesting thing about the adjustable highfrequency level is it is carried out without degrading the main high-frequency circuit path.

Was any consideration given to using more 'exotic' driver materials?

We think more about the sum of the parts than individual elements. It's easy to confuse good marketing stories with good science and costeffective design. That's not to say some exotic materials are not useful, but they usually cannot be used in isolation. A good drive unit motor system is not usually improved by changing the material of one part as it throws the balance of the design.