

Dynaudio Confidence 60

The Danish brand's flagship floorstander mixes upgraded in-house drivers with a sculpted 'Directivity Control' baffle
 Review: **Andrew Everard** Lab: **Paul Miller**

With more than 45 years of speaker-making under its belt, Dynaudio has a remarkably diverse range of product lines.

There are no fewer than ten series, in fact, each featuring a stack of the company's in-house technologies. And so it is with the Confidence 60, the £36,500 flagship of a range comprising one standmount and three floorstanders, and where 'Everything is new, from the cabinet to the drive units'.

This is an imposing loudspeaker by any standards. At 1.68m tall including its stabilising feet, it will dominate most listening rooms whether in its Midnight Black or Smoke Grey high gloss finishes, or Blonde [pictured, right] or Ruby wood veneers. However, what immediately grabs the attention isn't the main enclosure, with its immaculate finish and curved sides, but the unusual baffle housing the drivers. This stands proud of the cabinet decoupled using a gasket, comprising complex shapes and curves in matt black.

SHAPE-SHIFTER

The material here is called 'Compex', a hardened and sealed foam chosen for its excellent damping properties and compression stiffness, making it both inert and able to hold the drivers rigidly. Dynaudio says it's superior in these respects to more common speaker-construction materials, including MDF, HDF and metals, while its uniformity makes possible the convoluted shaping of the baffle. However, the material is expensive – 10x more than MDF – so it's only practical for the baffle, not the entire cabinet.

The result is eye-catching and adds to the speaker's in-room presence, but Dynaudio is emphatic this is not about style. Rather, it's all to do with Dynaudio Directivity Control (DDC), which 'shapes the sound waves in front of the speaker baffle to achieve a vertically and horizontally ideal sound radiation'.

There are a number of strategies at work in the Confidence 60's DDC waveguide, its complex shape encompassing the woofers at either end of the structure to optimise low frequency dispersion and 'driving' of the room, to the machined aluminium 'DDC Lens' surrounding the tweeter. Dynaudio also says its baffle architecture produces a more consistent sound at different distances, benefitting listeners in the second and third rows. Now I'm not sure if anyone does hi-fi show-style listening set-ups at home, so perhaps more significant is that this controlled dispersion is designed to reduce wall, floor and ceiling reflections.

'It's capable of driving even large rooms to thrilling effect'

MADE IN DENMARK

Dynaudio designs and makes all its drivers in-house, and the 28mm Esotar3 tweeter in the Confidence 60 is a development of a long-running design, now with a larger neodymium magnet, improved airflow, and an expanded back-chamber. Similarly, the 150mm midrange and 230mm bass driver cones are made from Dynaudio's MSP (Magnesium Silicate Polymer), a material the company has been refining throughout most of its history. Moulded in one piece, avoiding gluing, these diaphragms are both very light and very stiff – the woofer cone, for example, is just 1mm thick – for claimed 'speed and accuracy'.

The two midrange units feature 'Horizon' surrounds, following the cone's shape right to the edge of the driver – effectively increasing the radiating surface area while minimising mitertermination. Meanwhile the woofers, which are tuned using a downward-venting

RIGHT: Offered in a choice of Midnight Black and Smoke Grey gloss, plus Blonde (pictured) and Ruby veneer finishes, the Confidence 60's bonded-layer cabinet, with 'Compex' baffle, stands 1.68m high on its height-adjustable outrigger feet – metal spikes are supplied



'There are a number of strategies at work in the Confidence 60's unusual baffle'

THE GOERTEK CONNECTION

For those who remember that Dynaudio advert with the tag-line 'Danes don't lie', the reassurance is that yes, the company's loudspeakers are still designed and assembled in the factory in Skanderborg in central Denmark, from component level to finished products. But the story behind the brand is a little more intriguing: since 2014, Dynaudio has been owned by China-based Goertek, which employs 37,000 people back home in Shenzhen. From the start, Goertek tripled the R&D and engineering establishment in Denmark, and remains fully committed to Dynaudio's way of working. But it also has many other interests: it works with companies including Apple (supplying audio modules for iPhones), Oppo, Sony and Samsung, and makes audio products for car companies including the Volkswagen/Audio group, and Chinese companies staking their claim on the electric vehicle market, including BYD and Hongqi. With involvement that extends from Augmented Reality and wearable devices to home automation, and the ability to handle everything from software development to finished hardware, Goertek is a highly integrated company, and one of China's major electronics players.

port, have a high-power NeoTec 'motor' combining three layers of glass-fibre in their voice-coil formers for improved stiffness, and copper windings for extra moving mass. And like the other drivers here, they have an 'inside-out' motor, with the magnet surrounding the voice-coil.

A full-length grille is provided that covers the Confidence 60's baffle moulding [see PM's Lab Report, p51] – a pity, perhaps, to hide the speaker's defining feature, regardless of the fact it's not the 'prettiest' array of drivers around. The view around the back is more serene, with a single set of combination terminals mounted right at the bottom, which saves having cables hanging up in the air. These are WBT's plastic-bodied types, so care needs to be taken when tightening them if you're using spades on heavy cables. I'd recommend 4mm banana plugs as the way to go here.

CONFIDENCE IS KING

If the styling of the Confidence 60 speakers is arguably divisive, the sound will surely win more universal acclaim. Paired with our familiar Constellation amplifiers, including the latest models [see p38], Dynaudio's flagship proved more than capable of driving the large HFN listening room to thrilling effect, and doing so without any of the problems sometimes encountered with large speakers. In particular, that DDC design pays dividends in a sound that's both focused and expansive, combining excellent driver integration and taut clarity with a visceral impact, all regardless of musical genre.

For example, a prime slice of 1970s pop, Be Bop Deluxe's 'Panic In The World' from the *Drastic Plastic* album [EMI/Harvest CDP 7947332], instantly kicked the Confidence

60s into life with superb definition and a tight, weighty bass. Bill Nelson's guitar and voice were prominent against the very period synths, and the band filled the soundstage impressively. The same was true with the speakers' handling of Taylor Swift's big, reverberant vocal on 'Snow On The Beach', from *Midnights (3am Edition)* [Republic Records; 48kHz/24-bit], set as it is against a deep, deep bass, and her much more intimate voice on 'Would've,

Could've Should've' from the same album.

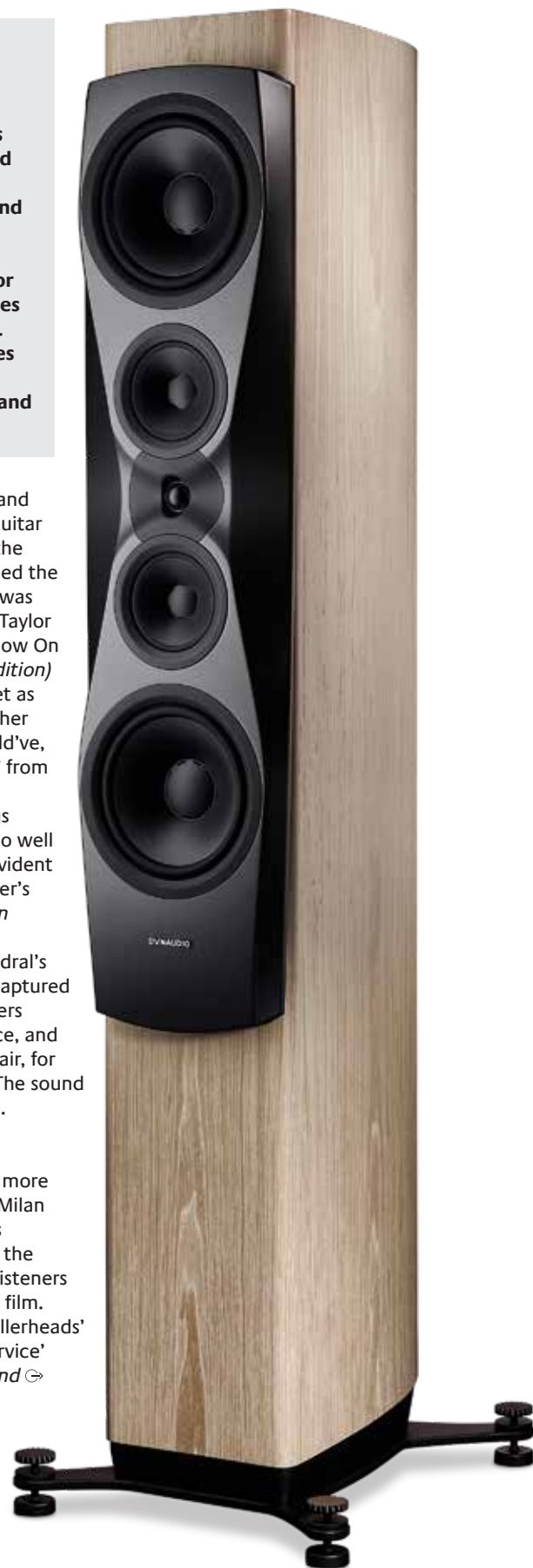
One of the things these speakers do so well is ambience, as is evident from John Challenger's *Salisbury Meditation* album [AJM 001], featuring the cathedral's

Father Willis organ in a beautifully captured acoustic. Dynaudio's flagship speakers did a fine job with the sense of space, and the way the instrument moved the air, for example in Elgar's 'Salut d'Amour'. The sound was subtle, refined and very natural.

SHAKEN AND STIRRED

Exercise those big bass drivers a bit more with Hans Zimmer's score for *Blitz* [Milan download], and the Confidence 60s grumble, rumble and threaten with the opening titles, shaking sofa-bound listeners while conjuring up the terror of the film. Staying with the cinema, and Propellerheads' take on 'On Her Majesty's Secret Service' from David Arnold's 1997 *Shaken And* ⇨

RIGHT: The 28mm Esotar3 tweeter is centrally mounted in a machined aluminium DDC lens, while above and below are 150mm MSP midrange drivers, with 'Horizon' surrounds, plus two 230mm NeoTech MSP woofers

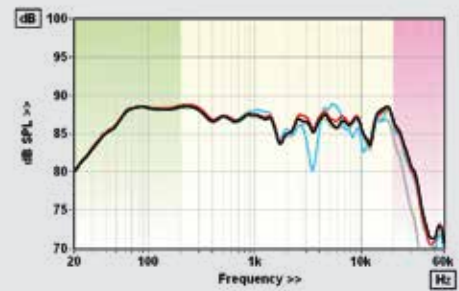


LAB REPORT

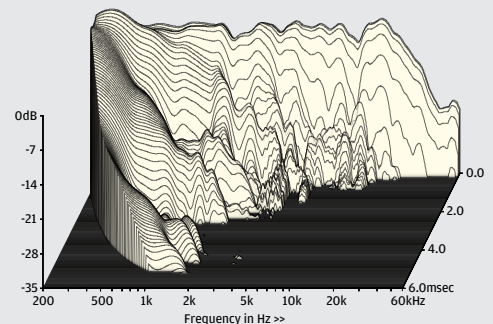
DYNAUDIO CONFIDENCE 60

Measured on the 28mm Esotar3 tweeter's axis, the Confidence 60's response shows a powerful (and low distortion) bass plus shallow dips at 1.8kHz – a mild midrange mode also seen on the CSD waterfall [Graph 2] – and at 12kHz [Graph 1, below]. These contribute to mere errors of $\pm 2.5\text{dB}$ and $\pm 2.3\text{dB}$, respectively, while pair matching is a tight 0.75dB (all re. 200Hz–20kHz). The soft dome Esotar3 tweeter is free of ultrasonic breakup, has exceedingly low $<0.1\%$ THD (re. 10kHz/90dB SPL), and offers a strong response to 20kHz. Its output has a 2nd-order roll-off thereafter [pink shaded area, Graph 1], but still extending to a generous 32kHz (-6dB re. 10kHz). While this treble loss begins slightly earlier off-axis [grey trace], the off-axis uniformity of the entire DDC lens/waveguide is otherwise excellent, showing differences in forward response of just $\pm 0.4\text{dB}$ over $\pm 15^\circ$. By contrast, the grille has a disruptive effect, producing a 5dB notch at 3.5kHz [blue trace]. Leave it off for 'serious' sessions!

Sensitivity is rated at 87dB, and this is well met at 87.5dB/1m/2.83V (and 86.5dB averaged across 500Hz–8kHz). The down-firing port (split to exhaust to the left and right of the cabinet) is tuned to 20Hz but still has significant output from 15–60Hz, combining with the $-6\text{dB}/38\text{Hz}$ roll-off of the two 230mm MSP woofers to deliver a deep, diffraction-corrected 28Hz extension ($-6\text{dB}/200\text{Hz}$). All this is achieved without hanging the amplifier out to dry. Dynaudio's 3.7ohm/71Hz minimum impedance is realised as 3.6ohm/77Hz – worthy of a 4ohm nominal rating – while mere $+36^\circ/-34^\circ$ swings in impedance phase through the bass brings a perfectly 'driveable' 1.9ohm/60Hz EPDR. PM



ABOVE: Response inc. nearfield summed drivers/port [green], freefield corrected to 1m at 2.83V [yellow], ultrasonic [pink]. L, black; R, red; $\pm 15^\circ$, grey; grille, blue



ABOVE: A mild cone mode at 1.8kHz, and short-lived resonance at 12kHz, do not detract from a 'clean' plot

LEFT: Curved, tapered cabinet is designed to manage internal resonances and features a down-firing bass reflex port. A single set of WBT 'Nextgen' posts feed the 200Hz/2580Hz crossover

This ability to hold together very complex recordings, bringing out the timbres of individual instruments or voices while still delivering the scale and impact of the whole, was readily apparent with the Janine Jansen recording of the Sibelius and Prokofiev violin concertos with the Oslo Philharmonic [Decca 485 4748]. The tonal colours of Jansen's celebrated Stradivarius, so beautifully captured on this set, were thrilling via the Confidence 60s, as was the balance between soloist and orchestra, and the persuasive concert-hall ambience.

VANISHING ACT

Given their size and price, these are never going to be speakers for everyone. But as a technical *tour de force* and a sonic one, too, they're nothing short of remarkable. Voices are another forte, so that the startling intimacy of Patricia Barber on her *Clique!* set [Impex Records IMP7002DXD; DSF download] was sensational. Set above a simple double bass on the opening of 'This Town', she was projected into the room by the Confidence 60s in that real 'vanishing speakers' way – if you could ever make Dynaudio's slender but tall columns disappear. When the drums and piano joined in, the image of her voice remained captivatingly solid. So if you're looking for real 'in the room' presence, look no further. 🎧

HI-FI NEWS VERDICT

As an exercise in 'everything we know' engineering, it's hard not to admire the achievement of the Confidence 60s. True, they're more of a statement than a looker, with the DDC construction on the front definitely a case of function over form, but if you have the system and space to accommodate them, they deliver fabulous musical communication, and all the scale and weight anyone could ever want.

Sound Quality: 89%



Stirred project [East West 3984-20738-2], the speakers unleashed the thundering bassline without swamping the brass, percussion and everything else going on above.

These speakers really are capable of astonishing dynamics, as they also proved when playing the Deluxe Edition of U2's *War* [Island/Interscope/UMe B0010949-02]. 'New Year's Day' jangled and crashed into the room with the volume turned up high, The Edge's guitar at turns snarling and almost flute-like, the rhythm section given full scope to power the track along. Bono's voice was also superbly focussed and packed with character.

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	87.5dB / 86.7dB / 85.1dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	3.6ohm @ 77Hz 15.9ohm @ 20kHz
Impedance phase: minimum & maximum (20Hz–20kHz)	-34° @ 51Hz $+36^\circ$ @ 310Hz
Pair matching/Resp. error (200Hz–20kHz)	0.75dB/ $\pm 2.4\text{dB}/\pm 2.3\text{dB}$
LF/HF extension (-6dB ref 200Hz/10kHz)	28Hz / 31.0kHz/30.6kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.15% / 0.35% / 0.08%
Dimensions (HWD) / Weight (each)	1634x271x469mm / 66kg