Three-way floorstanding loudspeaker
Made by: Monitor Audio Ltd, Raleigh, Essex
Supplied by: Monitor Audio Ltd
Telephone: 01268 740580
Web: www.monitoraudio.co.uk
Price: £3600

AUDIO FILE

hi-fi news OUTSTANDING PRODUCT

Monitor Audio Gold 300

The largest floorstander in MA's revamped Gold range employs bespoke drivers, including a ribbon tweeter
Review: **John Bamford** Lab: **Keith Howard**

'We tend to re-evaluate existing models once they're approaching four to five years old,' Monitor Audio's Technical Director and chief designer Dean Hartley told me when I quizzed him about the company's latest Gold range of loudspeakers. One step down from Monitor Audio's highly-regarded 'PL' Platinum audiophile range, the Gold models employ less elaborately constructed enclosures and drivers – and consequently are considerably more affordable.

Today, the flagship PL300 floorstander costs £6500 and its slightly smaller PL200 sibling [*HFN* Dec '09] is £5250, whereas this G300 is priced just £3000 in high-gloss piano black, white or lacquered walnut. The ebony finish commands another £600.

GOING FOR GOLD

Announced this summer, there are seven models in the new Gold range (plus a subwoofer), comprising this G300 and slightly smaller G200 floorstander (£2300), G100 and G50 compact standmounts (£1250/£950), along with two sizes of centre channel speaker and a rear effects model for home cinema set-ups.

The top-of-the-range G300 really does look like an awful lot of speaker for money. Standing just over a metre tall and displaying a quality of finish that could embarrass many speakers costing five times the price, it's a direct replacement for the GX300 we auditioned some four years ago [*HFN* Oct '11]. Indeed it's identically-sized and features the same complement of ribbon tweeter married to a 4in midrange and two 6.5in bass drivers in a rear-vented enclosure. Crossover points remain at 790Hz and 2.3kHz.

If you're out window-shopping, the main visible difference between old and new versions is in the drivers which featured radial strengthening ribs in the out-going GX model. In the new Gold range the cones are dimpled [see boxout, p43]. Oh, and where the magnetically-fixed grille on the old GX300 covered the full length of the front baffle, on the new G300 it covers only the drivers, leaving the sumptuously lacquered veneer on the bottom third of the baffle exposed in all its glory. That the price hasn't been increased despite the passing of years is no doubt due to Monitor Audio's production facilities in China – the Essex-based company has a dozen of its engineers living in Shenzen, supervising tooling and managing production on site.

Monitor Audio makes its ribbon tweeters and the cones of its drivers from C-CAM (ceramic-coated aluminium/magnesium), an alloy developed by the aerospace industry. The single-piece concave dished cones, whose geometry has been trickled down from the company's Platinum series, are shaped by a two-stage high pressure forming technique, the material undergoing stress-relieving processes during manufacture to avoid surface deformations. After forming the shape, the cone goes through a high temperature anodic coating process where a layer of ceramic (alumina) is deposited onto the surface to increase its rigidity.

Traditionally a hole would be punched in the centre to allow the voice coil to protrude for ease of assembly, however Monitor Audio keeps the cone as an uninterrupted dish to ensure the centre section is as rigid as possible.

So if it looks *almost* identical to the GX300 model, what's new about this 2015 G300? The midrange driver now features a shorter voice coil that's 'under-hung' in relation to the magnetic gap, to help ensure the voice coil remains inside the gap at all times and, it's claimed, lower distortion. Also, each driver's magnet and voice coil have been scaled-up to provide a more powerful driving force and improve dynamic capability. Specially shaped pole sections and top plates have helped reduce odd-order distortion in the motors under large excursions, says the company.

The Gold series' latest C-CAM cone has been developed to push the break-up point higher in frequency, further away from the crossover region. In conjunction, the connector mechanism between the voice coil and cone now provides some additional damping. This subdues the break-up peak to a point where MA can use simple second-order filters which are 'tweaked' to provide better integration of the drivers around their crossover point.

Meanwhile, the drivers' diecast alloy chassis are designed to offer efficient venting that keeps the driver cool and reduces internal pressure. And rather than being bolted or screwed onto the front baffle, each drive unit is secured via long tension bolts which pass through from the rear of the cabinet to the back of each driver's motor unit. The bolts serve a dual purpose, also adding rigidity to the sculpted and braced 20mm-thick cabinet.

RIGHT: Immaculately finished and with no visible driver or grille fixings, the G300 employs two 6.5in bass drivers crossing over to a 4in midrange unit and a ribbon tweeter for a treble response extending well beyond 40kHz

DIMPLED DRIVERS

Monitor Audio's C-CAM driver cones have evolved since first appearing in the original Gold series speakers of 2002. Advancements in finite element analysis (FEA) tools led Dean Hartley and his design team to make modifications over the years to the cones' geometry – and the method by which the cones are driven using damped build-ring mechanisms – to reduce distortion and improve performance. Rigid Surface Technology (RST) is the company's trademark name describing the construction of its C-CAM drivers. The concave form of the cone with its uninterrupted surface is designed to provide a smooth response and resist flexing stresses under load. The dimpled surface of its latest cones aims to offer additional resistance to these bending forces. Says the company: 'When asymmetric waves travel across the cone surface the dimpled pattern displaces standing waves. Although the surface is deformed it has been produced in a regular, predictable manner that does not affect the sound radiation.'

UTTERLY SUBLIME

We had the Gold 300s set up in the editor's media room, positioned in free space with about a metre of space around them, and toed-in to cross just in front of the hot seat on the sofa. Hi-res files and CD rips were played out from a Melco N1A server [*HFN* Aug '15], the speakers driven by Devialet's top-of-the-line 800 monoblocks. The result was frankly pretty remarkable for a speaker at the price, the G300s sounding refreshing and honest to source recordings while remaining well-mannered and controlled whatever music was thrown at it.

Indeed, from the word go the G300s exhibited a crisp and vivid sound quality I've witnessed before from the marque, with notably fine imaging and explicit detail retrieval. It doesn't flatter to deceive: play something ropey and the speaker tells it like it is, warts 'n' all, but play a beautifully balanced audiophile recording and you'll find yourself thinking 'This sounds utterly sublime… why spend more?'

The speaker really is terribly informative, with a slightly cool tonal balance that tends to highlight the fact that it's a revealing monitor rather than a cosseting and cordial transducer. Monitor Audio's ribbon tweeter sounds as sweet and delightfully open as ever in this latest '300.

> 'It served up a masterpiece of phrasing, harmony and rhythm'

It made easy work of the delectable shimmering percussion frills in Steely Dan's 'Ricky Don't Lose That Number' from 1974's *Pretzel Logic* [2008 Japanese SHM-CD reissue, Geffen UICY-93517], while the bouncy rhythm of the piece was notably quick-footed and 'snappy', with outstanding fluency. In fact I got carried away as the track ran into 'Night By Night' which I hadn't played for years, Jeff 'Skunk' Baxter's searing guitar highlighting the speaker's ability to richly describe dynamic expression as it served up Baxter's jazzy, blues-soaked masterpiece of phrasing, harmony and rhythm.

It also held everything together impressively during the head-banging swagger of 'Psycho' from Muse's *Drones* [Warner Bros, 96kHz/24-bit download], an album which sees the West Country trio endeavouring to capture the near-legendary spirit and raw energy of its ⇨

famed live performances. The raucous racket of Matthew Bellamy's gutsy guitar riffs was impressively visceral, as was the clarity of the sinister whispering parts, the Gold 300s meanwhile doing their utmost to replicate the primeval power of the thunderous drums.

It's in the bass region that the Gold 300 reveals it is a £3k loudspeaker, not a cost-no-object high-end monitor. It goes loud and stays clean sure enough, its bass delivery solid and satisfying with more than enough grunt at very low frequencies to rattle bookshelves

LEFT: Rear-vented enclosure has bi-wire/bi-amp terminals, linked with wire jumpers made of the same silver-plated OFC cable used inside the speaker. Crossover is accessed via a bottom plate

and make you draw breath… but there's a chestiness that obscures low frequency detail and expression. Purist, high-res recordings such as the Helge Lien Trio's *Natsukashii* [a 192kHz/24-bit download] showcase the speaker's impressive transparency to our system's source and its ability to bring piano, bass and drums to life when recorded in a natural perspective.

IMMENSE ENERGY

The subtle interplay between the three musicians was captivating to observe, as was the speaker's ability to describe the acoustics and ambience of the recording venue. Percussion exhibited delicious delicacy and striking realism, the quietest of cymbal strokes conveyed with precisely etched detail as reverberant 'zinging' decayed to silence. There's some immense LF energy during the track 'Bon Tempi', like the rumble of distant thunder.

The G300 reproduced such events admirably, sounding neither sloppy nor overblown, but when challenged to seemingly disturb a building's foundations the speaker's *very* low frequency output does tend to mask upper bass detail. Nevertheless, that it can be so informative and possess such finesse while obviating any trace of boom, tizz or artifice is a testament to the speaker's balanced design and illustrates skilful management of its bill of parts.

HI-FI NEWS VERDICT

Priced considerably less than a king's ransom, this classy floorstander commands attention to the music, sounding open-mouthed and extended over an unusually wide frequency range given its modest stature. But like the out-going GX300 before it, the Gold 300 is ultra-revealing of upstream components and demands that you don't skimp on the quality of ancillaries. That given, it's an audiophile bargain.

Sound Quality: 87%

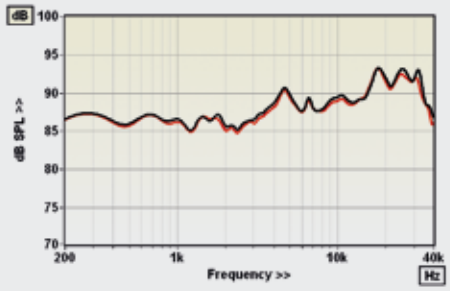
0 - - - - - - - - - 100

LAB REPORT

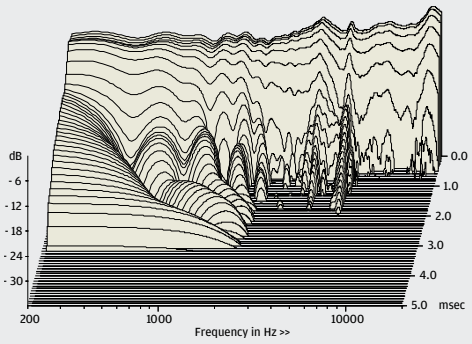
MONITOR AUDIO GOLD 300

Monitor Audio claims 90dB SPL sensitivity for its Gold 300, which accords with the 89.7dB we recorded by averaging the frequency response data but not with the 87.9dB we measured for pink noise input, which more closely resembles the declining high frequency content of real music. So in practice an 88dB sensitivity figure is more realistic. Low impedance plays a part in achieving this: although MA quotes a nominal 8ohm impedance, the minimum modulus that we recorded was 3.6ohm, indicating that the Gold 300 should be specified as a 4ohm design. Impedance phase angles are modest, though, and sufficiently well controlled that the EPDR (equivalent peak dissipation resistance) dips to a low of 1.7ohm at 92Hz, which is a typical figure for a modern floorstander of this size.

The forward frequency response [Graph 1, below], measured on the axis of the ribbon tweeter, is characterised by a gently rising response above 3kHz but this can be flattened by the simple expedient of listening a little off-axis. Because of this rise the response errors are a little higher than they might otherwise have been at ±4.1dB and ±4.3dB, respectively, for the pair. Pair matching error over the same 200Hz-20kHz range was outstanding, though, at just ±0.5dB. Diffraction-corrected near-field bass measurement shows the bass output to decline quite gently below 80Hz for a reflex design, reaching 47Hz (–6dB re. 200Hz). At the other frequency extreme, the ribbon tweeter extends the useful output to beyond 40kHz. Unsurprisingly the cumulative spectral decay waterfall [Graph 2, below] shows the two response peaks at 4.6kHz and 6.6kHz to be associated with breakup resonances. **KH**



ABOVE: Excellent pair matching while slightly bright response can be ameliorated by listening off-axis



ABOVE: Cabinet resonances are quickly damped but there are (mid) driver modes at 4.6kHz and 6.6kHz

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83Vrms – Mean/IEC/Music)	89.7dB/87.9dB/87.5dB
Impedance modulus min/max (20Hz–20kHz)	3.6ohm @ 125Hz 21.2ohm @ 58Hz
Impedance phase min/max (20Hz–20kHz)	–56° @ 71Hz 32° @ 48Hz
Pair matching (200Hz–20kHz)	±0.5dB
LF/HF extension (–6dB ref 200Hz/10kHz)	47Hz / >40kHz/>40kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.5% / 0.2% / 0.5%
Dimensions (HWD)	1060x210x330mm