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& Record Review

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**Børresen C1
Spectacular Danish
standmounts**

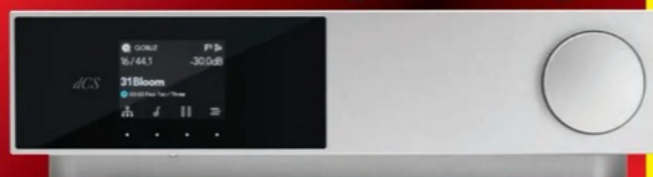


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Børresen C1

The C series is one of four speaker ranges from Audio Group Denmark's Børresen Acoustics. We start with the standmount Review: **Andrew Everard** Lab: **Paul Miller**

Where meticulous engineering meets creative artistry,' says Audio Group Denmark of its Børresen loudspeakers. This is a not unfamiliar claim, but there's no denying that the tall-yet-slender C1 looks suitably distinctive. Available in black or white piano lacquer finishes at £15,000 a pair, they stand just under 43cm tall, or a little over 112cm with the supplied stands, while the enclosure itself is a mere 20.4cm wide.

In practice, that piano lacquer over carbon-fibre on the speaker's side panels doesn't tell the whole story – the composite is only 1mm thick, and used to provide extra damping and stiffness. The main structure is machined from thick hardwood laminates, greatly contributing to the all-up weight of 18kg per speaker, rising to 24.5kg each with the stands. These custom pedestals are fashioned from the same wood laminate, rather than metal, Børresen saying this avoids any interference with the electronic components of the crossover.

ROBUST RIBBON

The C1's drivers are of in-house design and construction. The isodynamic RP94 'ribbon' planar tweeter, operating above 2.5kHz, claims a vanishingly low 0.01g (10mg) moving mass but also boasts the robustness needed to handle even high transient peaks. It sits deep in the satin black baffle, above Børresen's 128mm/5in DCC5 Neo mid/bass driver, which uses a triple-layer cone combining carbon-fibre skins sandwiching a honeycomb core, giving stiffness with internal damping. The driver is tuned via two of three small circular ports, venting at the top of the speaker's inset rear panel [see p65].

This proprietary bass/mid unit is derived from pricier Børresen designs – even at almost £15,000, the C1 is the series' entry-level model – and features double copper caps on the pole rings, implemented to lower inductance (and distortion) to present an easier load for the partnering amplifier. This was borne out by PM's independent

Lab Report [see p65]. A minimum amplifier requirement of 50W is specified – comfortably exceeded by the Constellation Revelation 2 [HFN Jan '25] used in the HFN Listening Room.

The loudspeaker's crossover uses Børresen's serial topology, rather than a more conventional parallel network, and for which various claims are made. For a second-order filter, a series network will require smaller inductors, at the expense of bigger capacitor values, but there's typically no magic bullet. The stands, meanwhile, are not terminated in spikes, instead fitted with adjustable circular metal feet with a fine down-facing rim – so care must still be taken when positioning the speakers on decorative floors.

The coupling (or rather decoupling) between the C1 and its stand is also unusual, with no sign of the more common solid bolts or points. Instead, Børresen

employs Ansuz Darkz S2t 'resonance control devices', for which cut-outs are provided on both the stand top-plates and the base of the cabinets. These use a combination of three circular stainless-steel discs, each of the two upper plates floating on three titanium balls in an effort to manage vibrations. They are part of a wide range of Ansuz accessories, from interconnects to cable lifters and network devices, offered by Audio Group Denmark.

LOOK BEHIND YOU

Setup of the C1 speakers is relatively simple: there's just a single set of 4mm posts provided to take cables terminated in bananas or spades, while the manual suggests a minimum 16cm distance between the speakers and the side walls, and 50cm to the rear, to avoid excessive bass. The manufacturer recommends that the speakers are positioned so the driver axes meet at a point about ↻

RIGHT: Milled hardwood laminate cabinet is stiffened with 1mm-thick carbon-fibre side panels. 128mm Børresen DCC5 Neo bass/mid driver (with carbon-fibre/honeycomb sandwich cone) crosses over to the brand's RP94 'ribbon' planar tweeter at 2.5kHz

'The massive dynamic swings had real power and drama'



'The RP94 planar tweeter, operating above 2.5kHz, claims a vanishingly low 10mg moving mass'



AUDIO GROUP DENMARK

Børresen Acoustics can trace its roots back to the 1980s when Lars Kristensen, then running a high-end audio dealership in Aalborg, Denmark, met Michael Børresen, who was studying to become an engineer, and had a fascination for analysing audio components and working out ways of improving them. The pair went on to found speaker company Raidho, which they sold off to an investor during the 2008 financial crisis. Both stayed with the company until 2017, before leaving to concentrate on other companies they'd started, Ansuz and Aavik Acoustics, adding the Børresen Acoustics speaker brand to the portfolio in 2018. Audio Group Denmark was established as the umbrella company for all three brands at the end of 2020, and was joined in 2021 by Flemming E. Rasmussen, the founder and former owner of Gryphon Audio.

The current Børresen lineup starts with the X series (four models from £5000 to £20,000), while the C series runs from the C1 standmount to the C2 and C3 floorstanders. The company's full lineup of 20 models tops out with the M series, which starts with a £94,000 standmount and runs all the way up to its flagship floorstander, yours for a cool £500,000 a pair.

a metre behind the listening position – in other words, so the listener can just see the inner walls of the cabinets.

GREAT DANES

Thus positioned, and on the end of the dCS Varèse [*HFN* Feb '25] and Constellation Revelation 2 pre/power system in the *HFN* Listening Room [see p37], these Børresen loudspeakers instantly set out their stall with a sound that, while necessarily lacking in 'floorstander bass extension', redressed the balance with impressive levels of clarity, and a smooth, focused and natural soundstage picture. Playing mezzo Magdalena Kožená and pianist Mitsuko Uchida's *L'Extase* recital of songs by Debussy and Messiaen [Pentatone download], the C1s delivered a fine balance between voice and accompanist (if one could ever describe Uchida as such), set in a persuasive acoustic with just the right amount of ambience and resonance. It's a magical performance, and these speakers rapidly draw the listener into the treasures on offer.

Anna Meredith's 'Nautilus', played by the BBC Symphony Orchestra conducted by Dalia Stasevska, on her *Dalia's Mixtape* album [Platoon DALIA01], showed bass punch improving the harder the C1 was driven. There was also speed and detail here, especially in those fast orchestral arpeggios, plus effortless soundstaging with a real sense of the scale of the musical forces involved. Such an ability to deliver presence was also in evidence with 'Aerodynamic' from psychedelic rockers King Gizzard & The Lizard Wizard [*Phantom Island*; self-released download], along with – again – that feeling of speed and dynamic punch.

Switching to Pulp's 'Grown Ups', from the band's recent *More* set [Rough Trade RT0541CD], and the C1 provided an intimate view of Jarvis Cocker's voice, even if the track's chugging bass line occasionally

threatened to overtake matters. 'Farmers Market', from the same set, remained both touching and close-up, although the spine-tingling nuances of that distinctive voice were not always front and centre.

There is, on occasion, the impression that some tracks might have a bit more to give, for example with the cinematic low-frequency content in Garbage's 'Love To Give', from *Let All That We Imagine Be The Light* [Stun Volume/Infectious Music 964145472]. That's probably why Børresen's floorstanding C2 and C3 exist, to provide a meatier work out with big, punchy power-chords. That said, Shirley Manson's vocals still sounded characteristically powerful, vibrant and generally fabulous throughout the album.

OVER THE MOON

The simple, open recording of Moon Halo's 'You Me And Everybody' [*Trichotomy*; MHM003] is smack in the C1s' comfort zone. The crisp drumming was especially impressive, and the lead vocals finely delineated. The same was true with GoGo Penguin's 'The Turn Within' from *Necessary Fictions* [XXIM Records, 19802899701] – again, the drums had good weight and impact, while the instruments above them in this jazzy track were explicitly resolved.

The more downbeat 'Naga Ghost' from the same set, with its rimshots and characterful upright bass, sounded superb, but the real standout here was the view of the piano, 

RIGHT: The wood laminate speaker stands are mass-loaded with heavy alloy Ansuz Darkz 'resonance control devices' bolted into the top and bottom of the main column. Three 'Darkz S2T' isolators sit between the C1 and the stand top





LEFT: Rear of the white piano-lacquer cabinet reveals a single set of 4mm binding posts for wires/bananas/spades. The bass/mid unit is reflex-loaded via the two lower ports while the upper tube attenuates the tweeter's rear output

driven by the potent Constellation Revelation 2 amp, were at home with both the dynamics and the fine details Britten layers into his score, expertly realised by conductor Gardner and his orchestral forces.

JUSTICE IS SERVED

That the C1s can make the most of top-notch performances and production was plain with the 2023 *Rachmaninoff Vespers – All-Night Vigil* recording by the King's College London Choir, directed by John Fort [Delphian Records DCD34296; 96kHz/24-bit]. This is my favourite version of the much-recorded work, and the London choir outshines even those ensembles you might think better suited to Orthodox liturgy.

The C1s' performance was simply radiant, aided by a sound that made the most of the acoustic of All Hallows', Gospel Oak, while maintaining the near-crystalline singing of this young ensemble. It's a sensational recording, and the speakers did it full justice.

I have to admit to starting this review with some uncertainty, given the price of the Børresen C1s, their unusual design, and the more obvious appeal of some substantial floorstanders for the same kind of money – or even less. Nevertheless, and with no sight of the Lab Report, these speakers just got better the longer I listened. ☺

which proved almost luminous in its clarity and natural weight.

These speakers maintain their appeal with orchestral music, the Edward Gardner/London Philharmonic Britten set [LPO-0134] sounding superb in the layering of the instruments in the 'Sinfonia da Requiem'. The massive dynamic swings of the piece had real power and wide-open, free-breathing drama. Magnificent stuff, and the Børresen C1s went on to delight with the distinctive voice of tenor Nicky Spence in the 'Winter Words' song cycle, before completing the album with the suite from 'The Prince Of The Pagodas'. Opening with a fine fanfare, the C1 speakers,

HI-FI NEWS VERDICT

Børresen's C1s are a fine choice if you're in the hunt for excellent sound from compact speakers for use in smaller listening spaces. In practice they justify all that in-house technology by sounding just as good as they look – they are both solidly built and finished, and distinctive enough to stand out from an arena that's not exactly sparsely populated. Yes, they're different, but they have qualities that demand audition.

Sound Quality: 87%

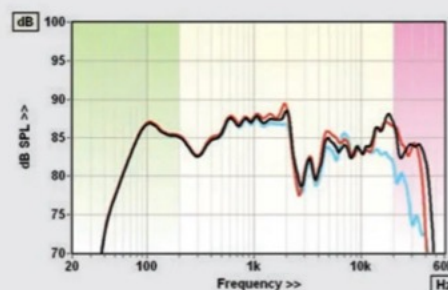


LAB REPORT

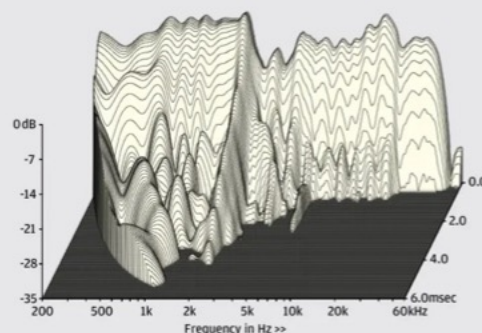
BØRRESEN ACOUSTICS C1

Clearly, a flat or uniform axial response is not always critical to the 'subjective experience' [see Graph 1]. At the standard 1m, the C1 reveals a mode right at the top of its bass/mid driver's range [also visible on the CSD waterfall, Graph 2] prior to a full 9dB drop in output over the subsequent 2.5kHz crossover. The latter is responsible for the high ± 4.9 dB and ± 5.9 dB response errors (re. 200Hz–20kHz) although the C1's 1.2dB pair matching [black and red traces, Graph 1] indicates this is intentional. The isodynamic tweeter gets into its stride above 5kHz, peaking just before 20kHz, but achieving a creditable 40kHz extension (-6 dB re. 10kHz). Distortion is high at $\sim 4\%$ (re. 90dB/1m) above 8kHz.

Of course, Børresen specifies a toe-out [see p37] and here, at $\pm 15^\circ$ [blue trace, Graph 1], not only does the response become more uniform (crossover dip notwithstanding) but the step response is far better resolved [not shown here] and the 2kHz mode seen on the axial Waterfall plot almost disappears... Nevertheless, the response 'shaping' affects sensitivity, the C1 meeting its 87dB spec. at 87.7dB/1kHz but falling to 85.2dB from 500Hz–8kHz. Bass is also 'shaped', the driver dipping ~ 5 dB in the upper bass, but peaking at 105Hz. The 43Hz tuning of the lower two ports brings the diffraction-corrected bass extension down to 55Hz (-6 dB re. 200Hz) although the narrow tubes do show two strong modes at 390Hz (also seen on the impedance/phase spectra) and at 2kHz, as discussed at the top of this report. Børresen's >60 ohm impedance rating for the C1 is met with a 6.1ohm/205Hz minimum and an 'easy' EPDR of 2.95ohm/128Hz, despite swings in phase angle of $+51/-56^\circ$ from 80–100Hz. PM



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



ABOVE: Isodynamic tweeter is clean. Strong mid-driver mode at 2kHz is rapidly attenuated $\pm 15^\circ$ off-axis

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	87.7dB / 85.2dB / 83.1dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	6.1ohm @ 205Hz 51ohm @ 93Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	-56° @ 102Hz $+51^\circ$ @ 82Hz
Pair matching/Resp. error (200Hz–20kHz)	1.2dB / ± 4.9 dB / ± 5.9 dB
LF/HF extension (-6 dB ref 200Hz/10kHz)	55Hz / 44.7kHz/38.5kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.9% / 0.5% / $\sim 4\%$
Dimensions (HWD) / Weight (all inc. stands)	1120x297x433mm / 25kg

The **hi-finews** Reader Pledge

& Record Review

Hi-Fi News' readers can take full confidence in the fact that every product featured on our front cover, across the magazine and on our website has been comprehensively examined (inc. photography), lab tested and auditioned at our purpose-built facility

You hold in your hands the world's oldest and most respected hi-fi magazine – *Hi-Fi News* – where heavyweight audio engineering is our stock in trade. All our review products are typically subject to a one-month test process from shipping, unpacking, installation, photography, lab work, extended listening, disassembly/packing and collection. This practice was maintained right through the pandemic period, with full Covid biosecurity adding

to the logistical complexity of our four-week issue schedule. But we did it... never missing one issue of the magazine or compromising the '*Hi-Fi News* Pledge':

1. Our hardware reviews are never brief 'hands on' experiences of a product from a press conference, brand-led demonstration or distributor's back room spun up into a four- or five-page article.
2. Products reviewed in *Hi-Fi News* already have secure distribution and retail channels in the UK. So readers *should* be able to arrange their own auditions if suitably inspired!
3. All review samples are shipped to and installed at our main facility. They are photographed by us (unless stock shots conform precisely to our template) and lab tested to a uniquely world-class standard before listening begins...
4. We believe in high quality investigative journalism by experienced writers and editors – we ask questions, we do our research and we make truly independent

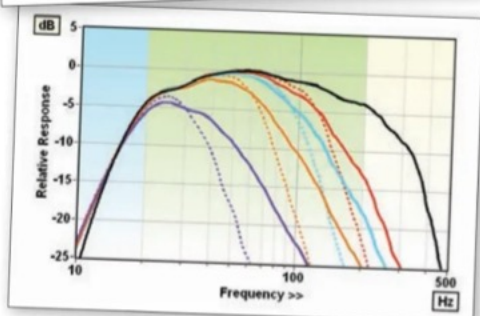
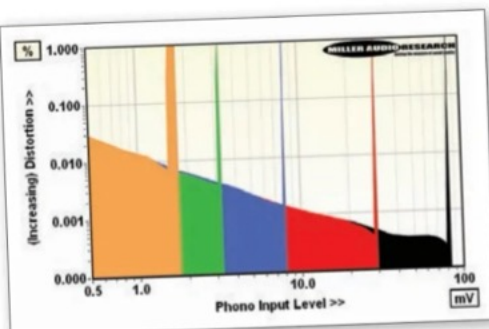
LEFT: Innovative, research-based test & measurement – with exclusive colour 'data visualisation' – underpins every review in *Hi-Fi News*. In each issue you will discover performance-determining facts that are unique to our reporting



ABOVE: Lifting speakers clear of reflective boundaries is crucial in obtaining a long 'anechoic' time window for our lab tests. Here's Dynaudio's Confidence 20A [p76] on its way up...

evaluations. We do not release reviews to brands for 'fact checking' or other modification prior to publication. They read it when you read it.

5. Above all we respect our readers. You demand the best reviews informed by decades of experience, product knowledge and technical expertise. We endeavour to live up to that expectation.



IN THIS ISSUE...

RIGHT: Here are Børresen's C1 standmounts [p60] in the *Hi-Fi News* reference listening room, toed out – as recommended – to cross about 1m behind the sofa. Power amp is the new Constellation Revelation 2 Stereo [HFN Jan '25] with Transparent cables throughout

FAR RIGHT: No clandestine trip to a dealer to rustle up a multi-page review for us! No... we hump every box into our purpose-built facility, unpack, photograph, test and audition. Here's the pallet from CH Precision just landed outside HFN HQ [p38]



FOUR Brands. **ONE** Philosophy.
ENDLESS Musical Experiences.



UNMATCHED MUSICAL PERFORMANCE

The impressive Børresen loudspeaker range is the result of a singular vision: to transcend conventional audio by crafting groundbreaking technologies that render music with authenticity, nerve, musicality and precision.

All to give music lovers an extraordinary listening experience with such intensity that they no longer see the speakers standing in front of them.

"What impressed me most was the incredible sense of realism and immediacy. The synergy between their brands delivered a presentation that was both effortlessly natural and deeply engaging. I will never forget the Paul McCartney vocal on 'And I Love Her'."

- Marc Fanthorpe, Fanthorpes in Hull



Børresen



Axxess L3
Loudspeakers

Axxess Forté
Streaming amplifier

Axxess
Power Distributor

Axxess
Cable loom

Axxess Noir
Resonance Control



Bringing People Closer to the Music

The Axxess series is a more affordable and less complex Hi-Fi system based the technologies and design principles used in the highly claimed Aavik, Børresen and Ansuz brands. However, the sound quality is significantly beyond what their retail price would suggest.

Naturally, the full Axxess lineup works in perfect harmony. However, clever engineering guarantees that each product performs equally well when integrated into other systems.

"What impressed me most was the incredible sense of realism and immediacy. The synergy between their brands delivered a presentation that was both effortlessly natural and deeply engaging. I will never forget the Paul McCartney vocal on 'And I Love Her'."

- Marc Fanthorpe, Fanthorpes in Hull

High-performance electronics are essential for high-quality music playback



Minimum Noise – Maximum Musicality

Every product in the Aavik ranges reflect our promise of delivering electronic devices that render music with authenticity, nerve and precision.

We believe that mechanically rigid enclosures, strong focus on noise rejection, meticulously crafted individual circuit stages and power supplies, create spectacular results in an aesthetically pleasing sleek design that is neither visually intimidating nor overwhelming.

By incorporating multiple highly unique technological advancements in all Aavik designs, we leave music lovers with an extraordinary listening experience

"What impressed me most was the incredible sense of realism and immediacy. The synergy between their brands delivered a presentation that was both effortlessly natural and deeply engaging. I will never forget the Paul McCartney vocal on 'And I Love Her'."

- Marc Fanthorpe, Fanthorpes in Hull



Ansuz Sortz Gen. 3 - Noise Reduction



Ansuz Sparkz Gen. 3 - Noise Reduction



Ansuz Darkz Gen. 3 - Resonance Control



Ansuz Cables Gen. 3

SONIC DETAILS UNHEARD OF

The extensive Ansuz range is developed with **Noise Reduction**, **Mechanical Grounding** and **Resonance Control** in mind. Even in the best systems, vibrations, mechanical noise and interference from the outlets need to be drastically reduced or eliminated. If not, the sound performance will lack clarity and precision resulting in a blunt musical experience without nerve and authenticity.

The Ansuz line of products include ultra high-end cables, power and ethernet distributors, as well as devices for resonance control and noise reduction.

"What impressed me most was the incredible sense of realism and immediacy. The synergy between their brands delivered a presentation that was both effortlessly natural and deeply engaging. I will never forget the Paul McCartney vocal on 'And I Love Her'."

- Marc Fanthorpe, Fanthorpes in Hull

