

Børresen X3

floorstanding loudspeaker

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Take a look at this speaker, consider its Danish origin, and have a go at guessing the price. Børresen makes a wide range of loudspeakers with the most ambitious coming in at half a million euros. The X3 is from the other end of the scale. It's the least expensive floorstander in the catalogue and costs £11,000. This is not a small amount, but put this speaker next to competitors with similarly high end ambitions and it looks like remarkably good value. You probably can't tell how big it is from the pictures but at nearly 1.3m (4' 3") it's taller than a lot of similarly priced products from major players, which, combined with superb build quality and finish add to the strong first impression.

The Børresen X3 is one of two X series models introduced this year both of which feature distinctive 'spread-tow' carbon fibre mid and bass drivers. These are also seen in the brand's flagship M-series models, which would suggest that this technology represents the future for Børresen loudspeakers. The exact nature of these drivers differs between the two ranges but this feature is clearly a significant factor. I reviewed some Perlisten floorstanders recently that use the same material. The distinctive chequerboard weave allows the use of thin weave carbon fibre that's lighter and thus theoretically easier to control than typical woven cones. There's more to these drivers than the weave however, they have sandwich cones with an aramid honeycomb filler between two carbon fibre skins so are both light and stiff.

The X3 is a three-way, the topmost 4.5 inch woofer is a midrange and the pair below the tweeter produce bass. These drivers have double copper caps on the pole pieces in an effort to increase flux and reduce inductance, I've seen single copper caps in a variety of drivers but not two. The benefit of lower inductance is a smoother impedance which makes the amplifier's life easier and should result in a smoother acoustic response. The distinctive ribbon tweeter is a high efficiency design derived from the examples found on Børresen's eye watering expensive M-series range. This one has a lower magnet and iron mass to keep costs down but claims 90dB sensitivity which is very high for a





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» ribbon. It operates from 2.5kHz to 50kHz which is an impressive range for any driver. The ribbon itself has an unfeasibly low 0.01 gram mass yet can handle "very high transients". It's aided in this respect by a wave guide that acts like a shallow horn and helps with power handling but doesn't seem to undermine dispersion.

Resonance control

The crossover is apparently built with the same components found in Børresen's Z series, which is the next range up. They are said to be mechanically stable with minimal "self resonance". Børresen is part of Audio Group Denmark, a group which includes Aavik and Axxess electronics, and Ansuz who make cables and resonance control devices. It therefore follows that Børresen products take vibration very seriously; a speaker wouldn't make sound without it but likewise it's very easy to colour that sound with unwanted vibration. The X3 cabinet is made of a heavily braced wood composite material and shaped so that there are no parallel surfaces. It is reinforced with carbon fibre on the top and front of the baffle and finished in high gloss black or white.

In profile, the cabinet is wedge shaped with quite an extreme curved taper from a 22cm wide front baffle to 6cm at its spine, and even that is curved. The latter features no fewer than six metal reflex ports. A cutaway image shows that the small one connects directly to the enclosure for the tweeter and the top two are tuned for the midrange, the remaining four cater to the bass system.

The base is wider than the cabinet in order to provide stability and consists of a sandwich of metal plates with a wood composite middle that is supported by Ansuz feet. The latter look a bit like draughts pieces underneath because they are designed to be used with Ansuz Darkz resonance control feet which come in a wide variety of types and materials including some very exotic (read: pricey) examples. You don't have to use Darkz as the X3s sit happily on the ground as they are, but it's an upgrade option that warrants consideration.



Room to breathe

The Børresen X3s may be svelte in appearance and this clearly helps in terms of imaging and resolution but what really struck me was the power of bass that they can reproduce. As a rule I put loudspeakers fairly close to the wall behind them, around a foot (30cm), with these I had to keep inching them into the room in order to remove the bloom associated with too much boundary reinforcement. It took several goes before there was a gap of 45cm between the slender spine of the X3s and the wall. My room is fairly bass light so this is further out than usual but it worked a treat, this distance is likely a result of the four bass ports at the back of the rear baffle and their close proximity to the floor. When I visited AGD last year I noted that there was around a couple of metres behind the speakers in their dem rooms, so space is probably a necessity for best results.

I used the Moor Amps Angel 6 power amplifier to drive them, which does have a warmer balance than the Class D amplifiers that sister brand Aavik make so this might also be a factor. It proved a winning combination, the low noise floor of the speakers allowing oodles of detail to flow through in a coherent and engaging fashion. The better the recording the better the results and for that matter the better the ancillaries. The X3s made it very easy to hear what various filters and cables were doing in the streaming system, but they also made The God in Hackney's *The World in Air Quotes* sounds magnificent. Room filling scale, powerful dynamics and subtle timing cues were all in evidence alongside the majesty of tracks like 'Bardo!'.

Wind it up

That slimline baffle allows these Børresens to disappear into the soundscape, close your eyes and you can't pinpoint where the speakers are, yet the power behind the open, precise imaging suggests that they are certainly doing what's needed. Like some other designs the X3s sound their best at higher levels, the dynamics really come alive with the volume wound up to 'entertaining'. The absence of





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» perceived colorations encourages high level listening so this is not exactly a problem unless you have neighbours nearby. I got a bit carried away with Keith Jarrett's *Carnegie Hall Concert* (ECM) which is an excellent recording and thus can be played at levels approaching the realistic without discomfort when the speakers are of this calibre. 'Part V' of this performance is a beauty that really shone through these speakers, the playing is positively radiant and Jarrett's timing could not be better.

With more complex pieces you get a real sense of being able to hear through the mix, this was apparent with Patricia Barber's 'Post Modern Blues' which can seem slightly thick and opaque with some loudspeakers, as if it has been mixed to sound plush on brighter systems. Here you get solid precise double bass and drums alongside the vitality and power of the piano, the whole unit is as sharp as a knife but there is depth of tone and body to the sound. It's a thrilling combination especially when the bass goes so far down, the double bass in particular being extremely articulate and fast.

Peel away

Someone once coined the term inky black to describe quiet backgrounds and it seems particularly apt here. The design and construction of the cabinet and drivers on this loudspeaker combine to remove any sense of overhang or ringing, pretty well all you get is clean sound. The bigger Børresens peel away more veils to reveal finer details no doubt but you get a pretty good insight into any recording with the X3. And that's before you add Darkz feet, I did that

with the S2T Darkz and got a very worthwhile uplift in bass tightness and low level resolution, eight S2Ts will set you back a pretty penny (€5,120) but a lot less than the price of a better loudspeaker. Standing on their own four feet the Børresen X3s represent excellent value both in terms of sound and build quality, which given where they are made is quite an achievement. +

Technical specifications

- Type** 3-way, four-driver, floorstanding speaker with reflex loaded enclosure
- Driver complement** One 70 × 28mm ribbon tweeter; one 4.5inch carbon fibre cone midrange; two 4.5inch carbon fibre cone bass drivers
- Crossover frequencies** Not specified
- Frequency response** 35Hz–50kHz
- Impedance** 4 Ohms
- Sensitivity** 88dB/W/m
- Dimensions (H×W×D)** 1290 × 345 × 607mm including base
- Weight** 55kg/each
- Finishes** High gloss black, high gloss white.
- Price** £11,000/pair

Manufacturer Børresen Acoustics ApS

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