

Neat Momentum SX5i

–Yes Sir, I can boogie

A background as a musician when designing speakers - is it an advantage or a disadvantage? We pose the question to Bob Surgeoner of Neat in northern England. He says that perhaps the brain adds information not heard at a trial listening of prototypes. We sampled one of their latest creations.

Text Ludwig Swanberg **Bild** H&M

In Neat's hierarchy, the Momentum is second only to the Ultimatum series, where no costs or resources are saved to achieve the ultimate speaker for music reproduction in the home. The momentum cabinets are extremely rigid and heavy, both because of the high density MDF but also a design incorporating multiple sections and template walls. The 2 1/2-way floor-standing Momentum SX5i's are the greatest in the series and owe many of its solutions from its uncompromising older siblings. One of these solutions is the Isobaric Bass Loading, which consists of two woofers working "in tandem", that are connected back to back on top of each other, or rather "belly-to-back." This means that the elements are mechanically linked. It should be noted that what the Neat gains in dynamics, phrasing and power handling, it loses in efficiency of the design, even if the initial benefit of the Isobaric design means that the enclosure volume can be halved while maintaining frequency response.

But what if you let the isobaric element work with a forward base in a separate ventilated area? After many prototypes, a basic concept began to take shape; a "two-way design plus subwoofer" to put it crudely.

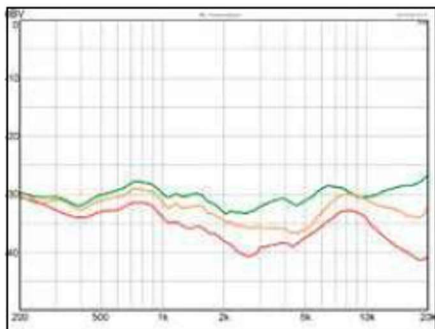
The SX5i is sectioned thusly: there is a compact 2-stringer at the top with its own rear bass port. In an internally ventilated extension a powerful Isobaric-base section is housed, where two "switched back" woofers fire downward with their own rear bass port. The crossover is "hard-wired", i.e. without a circuit board to secure the signal flow. There are two hidden, 6 1/2 inch downward firing bass units at the base of the cabinet. Out front, an Ultimatum Mid-range drive unit and a 1-inch inverted dome tweeter in anodized aluminum. The components are manufactured in England, according to Neat's specifications.

Accessories include a heavy base that widens out the bass further, which provides benefits both in purity and dynamics (We tested the speaker without). The distance from Isobaric bass units remains the same regardless, which actually removes a factor in the equation and gives





The two downward-firing 6 1/2-inch Isobaric bass units are not visible at all. But they are heard ...

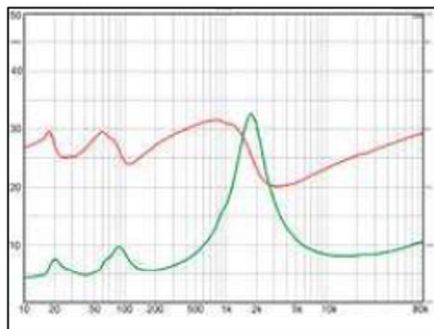


The Neat shows a surprising little dip between 1 and 5 kHz. The Midrange was measured straight at the speaker (green), so a slight inward angling is recommended.

Fast 3

- Neat means "pretty" or "smooth". We understand why!
- Isobaric Bass requires power to come to life.
- Unusually easy-to-place communicators

Right: The inverted anodized aluminum tweeter. The treble spreads just right, and relates particularly well with the dynamics.



Neat does not require much power and shows a harmless impedance (red), that does not go below 5 ohms. Neither phase sequence (red) encounters problems.



A couple of high-quality gold-plated terminals are placed in the middle of the back for single wiring. "Better to invest money on one good amplifier than several mediocre ones" says Bob Surgeoner

the possibility of an even more precise tuning of the bass response. It would appear that this solution has the advantage both in terms of position and al so ...

Joy and communication are key words for Mr. Surgeoner and his team. We therefore found a speaker placement that maximizes these characteristics. Our usual markings on the floor soon became completely unusable. Sure - it sounded airy and tidy, but comparatively very boring, so we threw all the rules overboard and began breaking them. And soon we ended up in the perfect spot. The speakers ended up much closer to the rear wall - 42 cm in our case - and closer together than in a "normal" case and also with just a hint of inward angling. They looked a little crowded so close together, but now they began to liven up to the room!

The Momentum speakers paint a n open and clear view of both singers and instrumentalists. Listeners are able to take part in the sounds, while the bass register has a surprising level of depth. I mean, At first view this is just a compact speaker with two elements at the top, but they play like a great ocean liner signalling its departure. The sound is burly, but - and this is perhaps most important for Surgeoner's hobbyhorse - maintains flexibility and versatility.

We must really make an effort to induce an uncontrolled bass sound - something that usually occurs automatically in our bass-heavy listening. When we intentionally place other speakers in the wrong position - too close to the back wall - it will be too fat, but the Neat speakers are relatively

shallow in that they do not take up much floor space even when they are a bit out from the back wall. This speaker is very easily placed. The fact that the speaker uses energy generated near the back wall to power the room, the result is extraordinarily communicative, and fun to listen to.

The tone is neutral, and leaning more towards the dry and cohesive than the romanticized. The impedance means that even a normal integrated amplifier should be able to operate the SX5i, but that's only half the story. The isobaric solution really comes into its own with high-quality amplification; It's about amperage. A well-built amplifier spurs the speakers in a completely different way than a normal integrated amplifier. The bass goes deeper and hits harder, while the top end opens up and is allowed to breathe. The difference is so great that it will stand as an absolute recommendation to procure a good amplifier if you are considering a pair of SX5i's. You absolutely can continue running these on your 8-watt triode amplifier, but there are better options. A larger preamp however, may be just right.

The most fun we had with the SX5i's was when we played music with drive and energy. Old tunes, such as Cream (Ginger Baker rules, OK?) to the latest Prince album are fed with great enthusiasm and total control. It never becomes strained, and the clean airy sound feels like a stereo-smorgasbord that just cleared away in front of you. The greatest impression left is with the tight and playful bass. And suddenly we realize how the series got its name.

Neat Momentum SX5i

- Price** 46,000 fr/pair
- Construction** 2.5 way isobaric/bass reflex
- Tweeter** 25mm/1" inverted aluminium dome
- Mid-range** 16.5 cm/6.6" drive unit
- Bass** 2 x 16.5 cm/6.5" drive units
- Crossover** No Information
- Sensitivity** 88 dB
- Impedance** 8 ohm(nominal)
- Bi-wiring** No
- Dimensions (WxHxD)** 22x105x23 cm
- Weight** 25 kg
- Info** www.neat.co.uk