

hi-finews GROUP TEST

If you're cramped for space in your listening room a high performance standmount loudspeaker is the way to go. This month we audition five compact monitors side by side

STANDMOUNT LOUDSPEAKERS £1350-£2000

TESTED THIS MONTH

B&W PM1	£1995
ELAC BS 403	£1479
MAD 1920S	£1900
PMC TWENTY.22	£1925
SONUS FABER VENERE 2.0	£1349



Cutting-edge gear, cherry-picked by the *Hi-Fi News* editor



The pinnacle of sound quality within its peer group



Great sound, great value and a cut above its rivals

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In a modest-sized listening space it's folly to shoehorn-in large floorstanding speakers that can swamp the room with too much bass energy and muddy the sound. For many enthusiasts, then, a good quality 'bookshelf' speaker is the sensible option, placed on stands that present the speaker at the correct height. Our group test this month features five well appointed models from £1350-£2000, all with carefully considered enclosure designs and drive units befitting their added-value prices.

To affirm the wide tonal variety different loudspeakers deliver there's nothing more illuminating than to hear a selection side by side in quick succession. Here we have five compact designs aimed at quality-conscious music lovers who won't mind paying a little more for something that's beautifully finished, and designed to offer better sound quality than budget designs built strictly to a price.

B&W's PM1 is a beautifully-made mini-monitor employing an elaborately constructed enclosure and hi-tech drivers, its tweeter mounted in a tapered tube as seen

in the company's flagship 800 Series and Nautilus models.

From Germany we have Elac's miniature BS 403, which sports the marque's latest design of Air Motion Transformer tweeter coupled with a 15cm mid/woofer in a vented enclosure. Made in the UK is My Audio Design's 1920S whose ultra-compact design was inspired by the BBC LS3/5A mini-monitor, says the company. Also from the UK we have PMC's twenty.22 designed by company owner Peter Thomas, an ex-BBC engineer who champions transmission line enclosures. Finally there's the Sonus faber Venere 2.0, an affordable standmount from the Italian company famous for its luxurious speaker designs.

SYSTEM AND MUSIC

For the listening tests the speakers were auditioned 'blind', driven by a Mark Levinson No.383 amplifier. The source was a T+A DAC 8, its asynchronous USB input fed from a Mac mini running JRiver Media Center playback software under Windows 8. We normalised the volume level by playing a pink noise signal and monitoring the speakers'

broad midrange output via an SPL meter at the listening position.

Music tracks included the late Radka Toneff's 'The Moon Is A Harsh Mistress', a delightfully simple recording of female voice and piano from the album *Fairy Tales* [Odin CD-03] and Sting singing The Police's 'Roxanne' from his intimate live set *...All This Time* [A&M Records 493 156-2]. Far less intimate – a rock band recorded in what was the Hammersmith Odeon in 1977 – is Frank Zappa's 'Pink Napkins' from the *Shut Up 'n Play Yer Guitar* box set [EMI CDS 7 90084 2]. Classical pieces included an excerpt from Vivaldi's Concerto in C performed by Rachel Podger with the Holland Baroque Society [24-bit/192kHz download from Channel Classics] and Eiji Oue conducting the Minnesota Orchestra in 'Dance of the Tumblers' from Nikolai Rimsky-Korsakov's *The Snow Maiden*, a challenging recording made by Reference Recordings [*Exotic Dances From The Opera* – 24-bit/96kHz download from HDtracks].

REVIEWS BY JOHN BAMFORD
LAB REPORTS BY KEITH HOWARD

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Elac BS 403



Elac is one of only a handful of companies worldwide making Air Motion Transformer tweeters, first developed by Dr Oskar Heil in the 1970s, which employ a folded polymer sheet structured around aluminium struts in a high-power magnetic field. Elac calls its transducer the JET.

Elac introduced its Line 400 range of speakers at last year's Munich High End show, with samples first arriving in the UK at the beginning of this year. They feature newly developed drivers, the latest JET 5 tweeters and bass/mid drivers with die-cast aluminium mounting plates and baskets.

The BS 403 is an ultra-compact two-way with a downward-facing port that fires to a base-plate, the idea being to make the character of the reflex loading predictable. The bass/mid driver in the BS 403 is a 150mm unit with a crystal patterned cone formed of a paper and aluminium sandwich and employing an extra strut at the centre of the coil former, which attaches to the rear of the cone in addition to the usual voice coil connection.

Elac makes a £399 universal stand that's a perfect partner for the BS 403, the LS 70/II, available in black, white and titan grey finishes. This can be damped with sand filling.

FAST AND EXPLICIT

From the opening bars of Zappa's 'Pink Napkins' the sense of acoustic was notable for its openness and three-dimensionality, the BS 403



universally praised for its clarity and high resolution. Bass was a little boxy – as it was with all these mini-monitors – but not so cloudy or compressed as to cause undue criticism from the listening panel.

In fact with our big orchestral track the little Elac sounded all of a piece, the sparkling tambourine and triangle hovering above the soundstage in holographic fashion, and it made a creditable stab at recreating the 'oomph' of the timpani during the challenging sections of the Rimsky-Korsakov.

Where the MAD tended to coarsen under duress the Elac remained refined-sounding; and where the B&W and Sonus faber tended to blunt the leading edges of transients the Elac sounded fast and explicit. 'It's much more like we're there,' said our panel when hearing the Holland Baroque performance. The BS 403 was judged to deliver the best reproduction of Sting's voice from our group of speakers. That tweeter sounded gorgeous!

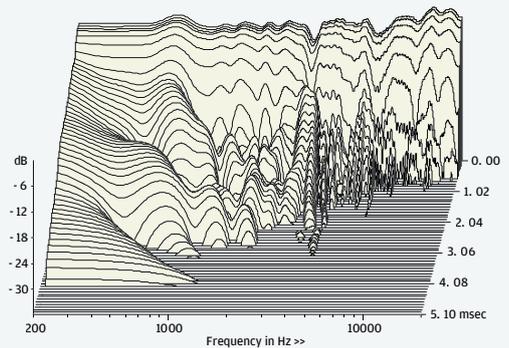
Sound Quality: 82%



LAB REPORT

Elac claims 86dB sensitivity for the BS 403 which accords well with our pink noise figure of 85.7dB. As the 4ohm nominal rating suggests, low impedance helps achieve this, the modulus dropping to a minimum of 3.1ohm at 584Hz. Impedance phase angles are high enough to dip the EPDR to 1.5ohm at 790Hz and 1.6ohm at 136Hz, making the BS 403 quite a challenging amplifier load.

Its on-axis frequency response is the flattest of the group, reflected in modest error figures of ± 3.6 dB and ± 3.0 dB, albeit with some excess energy in the top audible octave. Pair matching was less impressive at ± 1.9 dB but the largest disparities occurred in a narrow range between 3kHz and 4kHz. Bass extension of 65Hz reflects the small cabinet; the JET tweeter easily reaching above 40kHz. The cumulative spectral decay waterfall shows fast initial decay but with a breakup mode in the area of largest pair matching error. KH



Sensitivity (SPL/1m/2.83Vrms – Mean/IEC/Music)	86.5dB / 85.7dB / 85.3dB
Impedance modulus min/max (20Hz–20kHz)	3.1ohm @ 584Hz 16.1ohm @ 31Hz
Impedance phase min/max (20Hz–20kHz)	-50° @ 102Hz 43° @ 996Hz
Pair matching (200Hz–20kHz)	± 1.9 dB
LF/HF extension (-6dB ref 200Hz/10kHz)	65Hz / >40kHz / >40kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL at 1m)	1.1% / 0.4% / 0.1%
Dimensions (HWD)	308x166x294mm

GROUP TEST VERDICT

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Despite their compact form factors, all of the speakers in our group test were praised by our listeners for their room-filling capabilities. Of course they didn't serve up room-shaking thunder from the timpani of the Minnesota Orchestra at full throttle, or the fretless bass playing in Frank Zappa's rock band, nevertheless they all performed better than their diminutive proportions might have suggested. They sounded satisfyingly musical and transparent to our selection of different recording styles, offering good midrange clarity and detail.

After a group of audio-loving friends (none of whom work in the hi-fi industry) had visited for a day, during which the speakers were swapped around in random fashion, further experiments I made proved that the subjective performance of each speaker could easily be altered by switching the digital filter settings on the T+A DAC 8 used for our tests.

I mention this for two reasons. Firstly it proved all the speakers were sufficiently transparent to reveal what was happening upstream in a replay chain. Secondly, whether you like a speaker's sound will not only depend on how it interacts with your room but also the sonic fingerprint of the system driving it. Remember, when you're comparing A with B it's essential to ensure identical listening conditions *and* sound pressure level.

RIGHT: Elac's JET 5 tweeter adds class to its miniature BS 403. PMC's twenty.22 and Sonus faber's Venere 2.0 offer differing sonic perspectives: we're impressed by both of these speakers

My Audio Design's 1920S was applauded for its up-beat and vivacious music making but our listeners noted that it became a little muddled during crescendos. It sounds great if you don't push it too hard. While a dedicated stand is currently under development by MAD the company recommends stands from Track Audio (which are what we used) or Hi-Fi Racks.

PACKS A PUNCH

B&W's beautiful little PM1 sounds extremely classy and is exquisitely finished. It packs quite a bass punch too, but our listeners thought it

rather smooth and over-polite, lacking expressiveness and 'drama'. On the evidence of our listening tests you shouldn't partner it with smoochy-sounding

electronics, rather a front-end and amplifier that provide ultra-crisp sounds to add some sparkle.

Sonus faber's budget-priced Venere models clearly offer truly exceptional value. Our review sample of the Venere 2.0 was in gloss black (if you fancy a more

luxurious version with a polished wood enclosure it costs £200 extra at £1549). Rather like the B&W, the Sonus faber sounded slightly 'romantic', more easy-listening than a vivid studio monitor – but this might be precisely what you're looking for in a compact standmount for a family room. Certainly it can be highly recommended.

So too can the costlier PMC twenty.22, which was universally admired by our listeners for its dynamic and vivid sound quality, with notably clear and detailed bass. If your budget is tight, as well as the space in your room, you might care to compare the twenty.22 with PMC's even smaller twenty.21 model (£1485) that has been praised in these pages by Ken Kessler [*HFN* Apr '12] as something of a mini-marvel.

AND THE WINNER IS...

Finally the Elac BS 403 astonished our audiophiles with its open and transparent sound. One of our listeners – who has plenty of space and who currently owns an aging pair of floorstanders – is considering buying a pair, so impressed was he by the naturalness and clarity of the BS 403's midrange and treble. Certainly it's outstanding for the money. ☺

'The Elac BS 403 astonished us with its open transparency'



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