

In an increasingly competitive market, surprisingly capable quality speakers have become available in the lower price ranges — for example, under £600 a pair. Moreover, many of these skilfully-crafted products out-perform models that were current just a few years ago at twice the price.

Yet no matter how clever, every speaker design has to encompass certain balances and compromises, some of which may not be obvious during early listening but may come to light in the longer term. In aspiring to a deeper level of quality — a higher resolution, a more consonant listening experience, perhaps — a design might also lead incidentally to lessened listening fatigue.

It's also possible to spend more on less: to pay £1000 plus for compact (around 30 litres volume) or even miniature speakers (say about 9 litres). Add to this the cost of a good quality support stand (£250–£450) and discover in this range that a level of design experience and craftsmanship may give results which reach into audiophile territory, that is, comparable in significant respects with designs costing £5000 or more a pair.

Indeed, in terms of stereo image quality and transient vividness, such smaller speakers may even

outperform some of the full-priced full-sized examples.

The presence of a finite limit to bass power is not an issue, nor is the bounded low-frequency reach of the smaller models, which might suggest that for higher level, full-range performances smaller room sizes were appropriate. For if the most taxing programme is used with discretion, then the better of the smaller, yet high-quality speakers can often perform at wholly satisfying levels in larger spaces. It's all a matter of common-sense and proportion.

For this month we've managed to assemble a group of three designs from some of Europe's best craftsman speaker producers: Harbeth, Sonus Faber and Spendor. Harbeth's and Spendor's long association with BBC broadcast monitors is well known, while Italy's Sonus Faber designs need little introduction, such are the musical merits of these creations.

All three are stand-mount designs, clad in real veneer (solid walnut side panels in the case of the Sonus Fabers), bass reflex loaded and equipped for bi-wiring. They are all two-way models, using a bass/mid driver and a tweeter, and have a similar 87–88dB/watt sensitivity, 4–8 ohm impedance and power handling.

*Three high-quality stand-mount speakers,
all with a pedigree: the Harbeth Compact 7 SE,
Sonus Faber Signum and Spendor SP311P*

by MARTIN COLLOMS

CLASSIC compacts

Although Hi-Fi News have called these speakers 'HL Compact 7SE' they are, in fact, HL Compact 7ES - confusion over the name, but a close examination of the front baffle badge photograph (next page) confirms the correct '7ES' name!

Harbeth's HLCompact 7 SE is the largest of the group, with a 220mm bass driver; Spendor's SP3/1P comes with 165mm main unit. The Italian Sonus Faber Signum is the baby of the trio, with a 145mm frame size bass driver. Prices start at £825 for the Spendor, rising to £1249 and £1299 for the Signum and Harbeth respectively.

HARBETH HL COMPACT 7 SE

Although described as a 'compact', by today's standards this is nonetheless a pretty big design, especially when placed on suitable stands. The original design dates back over a decade, and was defined as a more compact version of Harbeth's then-equivalent of the Spendor BC1 and SP1.

The needs of the special Harbeth 8in bass/mid driver are served by an enclosure sized, balanced and tuned to allow the maximum performance from this unit. Harbeth has taken its cue from the BBC tradition for a true natural balanced, low-coloration speaker; and painstaking effort has been taken to match or indeed exceed those customary standards.

The '7 SE is intended for free space use, positioned for minimal boundary-coupled coloration and with the tweeter set at near ear-level. It is finished in a crisp-edged, delightful light cherry, matt laquered and yet fully transparent to the natural grain.

It also has a unique grille design whose properties are integral to the recipe. As with the little Spendor, this grille should be left in place. A revised front panel is seen in the latest 'SE version which includes a small ducted port for bass reflex loading (this was previously a simple rectangular aperture).

Amplifier connection may be single or bi-wire; sensitivity is average and load impedance a nominal 8 ohms. A 48Hz to 20kHz ± 3 dB axial frequency response is claimed.

TECHNOLOGY

Proudly explaining the relevant patent, Harbeth's designer/principal Alan Shaw describes a specific quality of protected molecular bonding whereby the full benefit of reduced density and greatly increased stiffness may be achieved when employing a glass microsphere fill in a mouldable polymer.

This development led to the exclusive Harbeth cone used in the current HL7 series, aimed to improve on coloration, response extension and clarity over the

previous Bextrene, polypropylene, TPX and related evolutions. In the HL Compact 7 SE, the cone is formed as a near-exponential flare, terminated by a nitrile rubber surround, the whole built on a custom, reinforced injection-moulded chassis.

The driver is a full-size 220mm unit, bass reflex loaded in the 48 litre volume by a short ducted port 50mm in diameter by 55mm long port located just below the bass mid driver.

High frequencies are covered by a version of the 25mm SEAS magnesium-alloy dome tweeter, ferrofluid cooled and using a visually transparent phase corrector under the protective mesh grille. Both drivers are magnetically shielded and perfectly flush mounted in the veneered front. This design incorporates Harbeth's 'edgeless' grille design, a vestigial strip section of fabric-covered welded metal, which locates in a groove. No additional reflective obstructive effects occur.

Built as shell, the thin-wall construction enclosure is visco-elastically damped to BBC standards using composite counter-layers. Front and back panels are firmly screwed into place. This type of build is useful in controlling cabinet resonances, since beneficial energy damping occurs at the boundaries between the shell and the removable panels.

Tightly specified, the low-loss crossover is built using high quality components including stable selected film capacitors and ferrite core inductors.

One can expect consistency, as well as a long service life, from such a closely toleranced speaker.

SOUND QUALITY

It's quite a few years since I reviewed a Harbeth. Claims here are of reduced midrange coloration, dynamics and clarity; and I was keen to hear how the patented cone technology would deliver in the real world.

I was not disappointed — indeed, I was truly impressed! Quite simply, the midrange was excellent: clear, dynamic and very low in coloration. Combine this with a neutral, self-effacing bass, a skilfully blended natural BBC-style treble, plus a reference-class tonal balance, and you have a speaker which positively breathes natural musical sounds.

I found the Compact 7 SE very easy on the ears, highly believable and capable of a real insight into the subtleties and fine detail present on high resolution recordings.

By today's standards this is a big

speaker sound, and no excuse need be made for its bandwidth or sense of natural scale except for very deep bass. Some might find it a little dull but this isn't true, any more than saying that a Quad Electrostatic is dull.

So classy was the midrange that the enthusiast might well add a fine sub-woofer — though he or she will have to spend just as much again as for the Harbeth stereo pair if justice is to be done.

The bass did lack some punch and attack (perhaps a feature of the highly damped, low coloration thin-wall cabinet), but nevertheless it was sufficiently weighty; and moreover it was both agile and tuneful. The information content in the bass was realised together with a sumptuous almost creamy texture to the lower midrange. Cellos and double-basses are given a powerful presence.

That midrange seems to go on for ever, never breaking into hardness or nasality, gliding into the treble range, which of itself was also very good, only marred by a tinge of breathy 'zzz' at the edge of audibility.

With an almost crystalline clarity delivered over the broad midrange, except for a hint of well controlled enclosure 'panel' sound in the lower range, where some modest loss of clarity occurs, this speaker had substantially good focus complemented by a high transparency, sufficient to produce substantial, audiophile grade image depth in the stereo soundstage. Coupled with the high resolution this made classical music recordings especially satisfying.

It isn't a true rocker, but this Harbeth's evident truthfulness to the music content allows the speaker to kick along well, showing clean, informative bass lines, excellent mid percussion, and a delicately resolved, unexaggerated high range. Vocal leads were characteristically articulate: the words as well as the tunes conveyed with equal weight. Midrange dynamics were very good, and taken overall it had satisfying timing and involvement. Natural, acoustically-recorded jazz was particularly impressive.

Best results were obtained with the enclosure Blu-Tacked to a substantial stand (in this case a Slate Audio) operating in free space, 1.3m from the speaker wall.

CONCLUSION

While the physical presentation may look dated and the HL7's relative bulk gives a speaker which will dominate the room it is to be

used in, it warrants a strong looking stand and should be allowed pride of place; the owner is then unlikely to regret investing in something holding to traditional values and where quality has not gone out of date.

Both bass and treble ranges are pretty fine; moreover they are seamlessly blended with the mid. And as for the midrange, there's lots of it and it is outstandingly good. Beautifully balanced, articulate, well resolved, transparent, with very natural vocals, the HL7 is easy to recommend for all purposes (apart from a constant diet of loud, heavy metal!).

GROUP CONCLUSION

Each model tested here has particular strengths. For example, there's the magnificently neutral mid range of the Harbeth, the transparent, focused and dynamically involving performance of the Sonus Faber, and the all-round yet less emphatic accomplishment of the Spendor, which unusually offers almost BBC standards of tonal balance accuracy and has surprisingly punchy bass.

Sounding almost like a full-range, larger loudspeaker, the Spendor is easy to get on with. The treble is pure and well integrated, while the mid band is almost reference quality. Some lower register boxiness softens the bass impact somewhat, but the result is nonetheless most sophisticated and even-tempered.

Harbeth's proprietary 8-inch driver is a tour de force encompassing classic BBC virtues with a level of clarity and intrinsic dynamic resolution which is very rarely heard in such a naturally balanced combination. While bass wasn't outstanding, it did more than well enough in this area



not to get in the way of the overall result. Like the Spendor's, the mid treble balance is of top grade monitor accuracy, and only a hint of 'wispieness' in the highest reaches of the treble prevents it from reaching the highest class in this area too.

By comparison, the Sonus Faber sounds turbo-charged: faster, a bit rougher and not quite so subtly and accurately balanced, but also contriving to deliver deeper, more transparent and focused sound-stages, more punchy rhythmic bass, better dynamics and a high level of listener involvement. Lighter in balance, it benefits from some wall reinforcement which also helps to tame some mild mid aggression.

You can depend on the Spendor, be charmed and delighted by the Harbeth and be both excited and involved by the Signum. All have fine sound quality; all three are really good speakers. The final choice has to be up to you. However if the system budget matters, on value grounds the Spendor SP3/IP takes pride of place. Its easy-to-drive nature will also make the most of your choice of amplifier, even a valve design.

For a fuller account, see the individual reviews, but on test each of these speakers did an impressive job musically. If you find one particular package suitably sympathetic, then go for it, since all can be recommended with confidence. †

LOUDSPEAKERS

HARBETH HL COMPACT 7SE

LAB REPORT

With 87dB/W sensitivity, the Compact 7 provided close tolerated axial response, to monitoring accuracy standards, $\pm 1.5\text{dB}$, 60Hz to 22kHz. Bass was quite well extended, -6dB 46Hz, helping to match room boundary at low frequencies. On axis there was a hint of the 'BBC' dip; this a mild shelf centred on 3kHz which can improve perspective.

With a power handling of up to 150W (peak programme) the speaker could deliver useful maximum sound levels of 103.5dBA in a typical listening room. The impedance characteristic fell below the 8 ohm nominal standard, to a minimum of 4.7 ohms at 350Hz — this is a 6 ohm speaker. Reflex tuning was indicated at 40Hz; the high slope crossover responses defined a changeover at 4kHz.

Pair matching was very good at $\pm 0.2\text{dB}$, 100Hz to 15kHz, excepting 0.9dB error around 2kHz. The grille left primary response unaffected save about 1.5dB of attenuation in the last treble octave, accounted for in the voicing: leave the grill on!

Below-axis the response dipped at crossover but for all sensible vertical angles and lateral responses, 30°, 45°, the Harbeth showed fine results

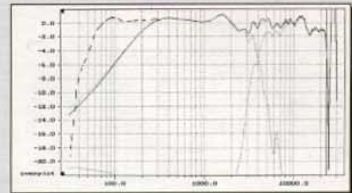


Fig 1a. Harbeth HL7: axial frequency response, 1m (dashed line, nearfield correction); see text

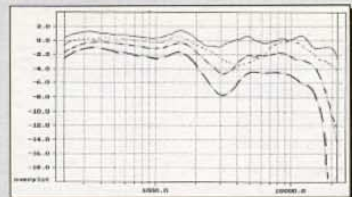


Fig 1b. Harbeth HL7: response family at 2m, axial (solid trace), off-axis 30° lateral (dashed), 45° lateral (long dash)

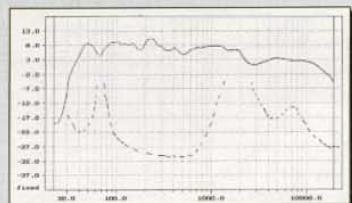


Fig 1c. Harbeth HL7: room-averaged response (RAR) and (lower trace) impedance versus frequency, 2 ohms/div

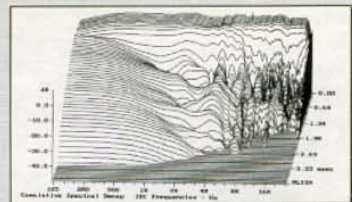


Fig 1d. Harbeth HL7: MLSSA waterfall of energy, showing spectral decay

for the off-axis family.

Assessed by room averaging, the full-bodied balance was confirmed by a strong uniform, output, 50Hz to 2kHz. The sound 'power' stepped down a few dB at this point showing

that presence dip again, before continuing very smoothly into the high treble.

The overall decay response was most impressive, indicating very low midband coloration and clean, focused transients.

Test results	Harbeth HL Compact 7 SE
Dimensions (hwd, mm)	520x273x300
Recommended amplifier power per channel	20-150W
Recommended placement	on 400mm stands, free space
Frequency response	$\pm 3\text{dB}$ (2m) 55Hz-23kHz
Bass frequency rolloff (-6dB) at 1m	46Hz
Bass frequency extension (typical in room)	42Hz
Voltage sensitivity (ref 2.83V) at 1m	87dB/W
Approximate maximum sound level (pair at 2m)	103.5dBA
Impedance	minimum/typical/ease of drive 4.7 ohms/6 ohms/average
Forward response uniformity	very good
Typical price per pair (inc VAT)	£1299

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