



STEREO LOUDSPEAKERS

# Q ACOUSTICS CONCEPT 40

It appears that Q Acoustics' Concept 40 loudspeakers are the result of a speaker design project that 'went off the rails'... so to speak. It all started when the Concept 2020i became so phenomenally successful for Q Acoustics that the company was inspired to build the Concept 20... which was equally successful.

However, both were small two-driver two-way bookshelf speakers with small cabinets, and thus their deep bass response and maximum output levels were constrained by the immutable laws of physics. So when customers started asking for a bit more bass and power handling, Q Acoustics initially took the KISS (Keep It Simple & Straightforward) approach to design and added a second bass/midrange driver, while at the same time increasing the size of the cabinet to accommodate the second driver.

Alas, for once the KISS solution did not work... well, it worked, but it didn't give Q Acoustics' designer Karl Heinz-Fink the increase in bass output he'd been aiming for. So he ended up souping-up both bass/midrange drivers by fitting them with much larger magnets and adding additional Gelcore bracing inside the cabinet (which is itself mostly made of Q Acoustics' Gelcore material, about which more later).

## EQUIPMENT

Although Fink souped-up the bass drivers with larger magnets, he didn't take the seemingly obvious step of turning the Concept 40 into a 2½-design.



So despite its size, orientation and driver layout, the Concept 40 is a two-way design, using two identical drivers to deliver both bass and midrange, and leaving the highs to a single 25mm dome tweeter. Externally the driver is identical to the one used on the Concept 20, with a diameter of 125mm and a cone material of paper pulp covered by a thin coating of a material that Q Acoustics says is made from carbon-fibre and ceramic.

The tweeter to which the twin bass/midrange drivers cross is exactly the same one used in the Concept 20: a 25mm diameter soft-dome design with a very wide fabric suspension. The tweeter operates from a shallow plastic horn and is powered by a neodymium magnet.

But wait! There's more... In common with many modern high-end loudspeaker designs, the tweeter is not fixed directly to the Concept 40's



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outrigger feet at the rear. Although fabulous-looking, this design does compromise the stability of the speakers in the forward/sideways direction, so that a small amount of angular force from either rear corner of the cabinet could see them topple. Careful positioning and/or some type of anchor would be advisable.

### PERFORMANCE

As with the Concept 20s, we had no doubt that the Concept 40s’ treble performance was the high point when we were listening. Its ability to reveal even the most microscopically small acoustic details in the upper treble region will make your

jaw drop. To experience it, listen carefully to the shimmer after a drummer has hit a cymbal and let it ride... but the trick here is to listen not just to the sound of the cymbal but instead to the other high-frequency sounds being reproduced at the same time. Our only minor niggle was that if we played these speakers for extended periods at very high volume levels, we heard the treble ‘soften’, so it became a little laid-back compared to the midrange. But once we turned the volume back down to ‘normal to loud levels, the correct tonal balance quickly re-appeared.

If we thought the high frequencies were the stand-out area of sonic performance for the Concept 40s, this time around they were definitely competing with the bass response for our highest accolades. The additional bass driver and the much larger cabinet compared to the Concept 20s means the bass digs far deeper into the bottom octaves and also meant we could wind up the volume considerably higher, so the bass become deeper, harder-hitting and much, much louder... a winning trifecta for any loudspeaker. Moreover the ‘feel’ of the bass was super-comfortable to our ears, being tuneful, nicely paced and well-mannered, with none of the ‘false’ upper bass engineered into some speakers to make them stand out on the showroom floor in a quick audition. This is bass balance for the long haul. Indeed the bass of the Concept 40s is so perfectly balanced against the midrange that your first impression might be that there’s too little of it. Don’t be fooled... what you’re hearing is exactly right.

Midrange is also outstanding, with excellent clarity when listening to vocalists, and accurate

timbral reproduction. We thought there was a very slight loss of articulation compared with the Concept 20s, but the Concept 40s more than compensated for this by sounding way fuller and richer right across the mids, while at the same time imbuing a greater overall sense of smoothness to the overall sound... complementing the smoothness we remarked on that also characterises the bass.

We were also impressed by the spatial accuracy of the Concept 40s’ presentation. Sit in the sweet spot between the speakers and you’ll hear a huge spread of sound, extending far beyond the actual physical positions of the left and right speakers, with musicians positioned accurately across the full width.

### CONCLUSION

We have to say it again: the design and execution of Q Acoustics’ Concept 40 floorstanders is unbelievably good. The gloss finish, the rounded corners, the fact they look equally good with or without their grilles, the stylish chrome/glass outriggers... these speakers look so good they wouldn’t be out of place in a museum of modern art. The even-better news? They sound every bit as good as they look. ■

front baffle, but is vibrationally isolated from it by means of a very flexible soft rubberised surround.

We’re great fans of isolating tweeters in this fashion, because the performance of a tweeter can be dramatically altered by cabinet vibrations. By way of example, consider this — to deliver an audio signal at 10kHz, a tweeter dome has to move back and forward ten thousand times every second, so if the loudspeaker cabinet is vibrating at the same frequency, but is going ‘backwards’ at the same moment the tweeter’s dome goes ‘forward’, the dome’s net movement would be zero, so no sound would be produced at all. Such a scenario (total cancellation) is impossible, but in practise, any cabinet vibration will adversely affect the performance of a tweeter.

But Q Acoustics has done more than prevent cabinet vibrations from reaching the tweeter... it’s tried to prevent the cabinet from vibrating at all, by using a material it calls Gelcore for the sides, top and bottom of cabinet. Gelcore is a three-layer ‘sandwich’ where the outer (‘bread’) layers are made from 10mm medium density fibreboard (MDF) and the ‘filling’ is a single millimetre layer of non-hardening adhesive material that bonds the two layers together but never sets. The idea is that vibrations in one layer of MDF are not transmitted to the next layer, because the adhesive material absorbs them and converts them into heat.

Available in two high-gloss painted finishes — black and white (both of them stunning, we have to say) — the appearance of the Concept 40s is further enhanced by the use of alloy plating around the drivers, and glass/chrome-winged

### Q Acoustics Concept 40 stereo loudspeakers

- Amazing highs
- Balanced bass
- Lovely imaging

- Cabinet stability
- Midrange articulation

**Price:** \$1899

**Enclosure type:** floor-standing, bass reflex (rear vented)

**Bass/mid drivers:** 2 × 125mm

**Tweeter:** 25mm dome decoupled

**Frequency range:** 53Hz–22kHz

**Nominal impedance:** 8 ohms

**Minimum impedance:** 4 ohms

**Sensitivity:** 90dB SPL

**Crossover frequency:** 2.3kHz

**Finishes available:** Black Gloss, White Gloss

**Dimensions (hwd):** 972 × 170 × 288mm

**Weight:** 18.5kg (per speaker)

**Warranty:** Five years

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