

FS 104 Signature XL stands

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Custom Design FS 104 Signature XL speaker

Positioning loudspeakers within a room is so vitally important to the sound they produce. Avoiding positions that are too close to walls (especially corners), are obvious, others less so. It's vital to eliminate (or at least minimise) reflections from surfaces close to the speaker cabinets, from the listening position you want to hear the direct sound emitted by the drive units without distortion and coloration from unwanted reflections as far as possible.

Another vital factor is to put the speaker's axis at the same height as listener's ears. It's not always clear where a designer has decided this to be, and it is worth checking what the manufacturer recommends. Very often, but not always, the tweeter should be at ear-level, although another common on-axis point is midway between the tweeter and the midrange driver unit.

Many loudspeakers can be purchased with matching stands, although these may not be suitable for every installation because they will be designed for an 'average' seating position adopted by the listener. But this takes no account of an individual's height or the height of their chair.

Custom design

Recently I needed some high-quality loudspeaker stands for a review because my regular stands were not well suited to the speakers under consideration. A quick call to Paul Morton at Custom Design near Newcastle and I had myself some high-quality, British-made stands. Paul produces a wide range of both stands and equipment racks and, if it's not in the catalogue he can – as the name suggests – custom design it without too much delay. Fortunately, what I needed was covered in the shape of the FS 104 Signature XL stands and I went for the all-black look (rather than chrome) to fit my surroundings.

Custom Design is a long-established family business with some 30 years of experience in designing and manufacturing hi-fi furniture. Meticulous engineering design goes into each new

product so it's no wonder that so many are award-winning and the brand one of the best-known and highly-respected worldwide. There is an enormously wide range of stand types, heights and sizes in the Custom Design catalogue to cater for all the popular loudspeaker models on the market.

The firm's ethical pedigree means that wooden units are made using only TTF FAC-harvested solid walnut, oak and ash. The all-metal designs, including the 104s, rely on an Acoustic steel for the top and base plates. This has the extraordinary ability to absorb unwanted



resonances while transferring vibrations from the speaker platform to the base spikes. The material chosen reduces vibration which could otherwise colour the sound produced by the speaker. The Acoustic top-plate claims to reduce the vibration by 100x or more over much of the frequency range. Adding an Acoustic base plate reduces the remaining resonance by a further factor of up to 100x again (a total of 1000x at some frequencies compared with the inert filler alone).

FS 104 Signature XL design

The FS 104 Signature XL relies on the satellite supports providing rigidity which is very important, while the larger diameter centre support provides the ability for mass loading to control the bass if required. I ordered six bags of the proprietary inert filler to provide flexibility as I review a wide variety of loudspeakers.

Some speaker designs prefer less mass and others more. As a starting point, Custom Design recommend two bags per centre support column. If the LF output requires more control, then extra bags can be added in small increments (200-300g per column) until the optimum sound is achieved. And this will be room dependent as well.

So that I could use the stands with as many different review models as possible, I also ordered the full acoustic steel top plate (measuring 180 x 280mm) whereas the standard option is for the



laser cut out 'I' shaped top plate, matching the bottom one, as it provides more agility to the sound performance. That said, my full acoustic top plate will add more mass to the design which should enhance the bass.

One of the features of the stand is a cable slot in the base plate to help tidy them up behind the centre support column. The manufacturer also uses a custom-made spring system inside the tubes which are pressed into position. This adds to the cost but makes them easier to assemble because they arrive flat-packed, à la Ikea. The 104s have black zinc base isolation spikes (with complementing spike covers) and there is easy access for Allen key adjustment. As Paul Morton explained a lot of thought and effort goes into every aspect of the design, not least the choice of materials. "The acoustic steel we manufacturer exclusively for our products or to the speaker manufacturers we supply speaker stands for. It consists of a constrained layer dampening system which converts resonant energy to negligible heat through friction. We haven't found anything better in the past 25 years, and we have a range of isolation platforms all designed on the same format."

FS 104 Signature XL in the system

The Buchardt loudspeakers for which I needed the FS 104 Signature XL have an off-axis response almost as good as their on-axis figures. Nevertheless, siting them on the Custom Design supports still brought noticeable sonic benefits. With The Who's I Can See for Miles there was an increase in midrange clarity, a tightening of the bass and an ability now to pinpoint the tweeter output right at the listening position. There was also an obvious benefit with Fingal's Cave (from Mendelssohn's *The Hebrides Op 26*) as the whole focus improved and the midrange sharpened.

Switching to another speaker design, one with a much poorer off-axis response, and the benefits of the competent stand was even more apparent. Now with Jimmy Cliff's You Can Get it if You Want it the singer's voice was much clearer, less muddled in the mix on this old recording.

Filling the centre tubes with some of the supplied inert filler did wonders to tighten the bass response which otherwise was rather woolly and tending to boom slightly. Listening to Pachelbel's Canon in D major the stands allowed the entire performance to be much more lifelike, with realism improved immensely. The tight harmonies and pretty violin tunes were altogether more enjoyable now, with that oft repeated bass line having much more weight and

Custom Design FS 104 Signature XL

authority. If anything demonstrated the need for investment in some properly engineered supports for a suitable speaker/stand match, this was it.

Conclusion

There's no doubt that selecting the most appropriate support makes a world of difference to how a loudspeaker will perform. Most improve significantly by the on-axis point being brought to ear level; more noticeable for designs with poorer off-axis responses.



These Custom Design stands have pedigree and integrity, the FS 104 Signature XL is engineered with care and attention as well as manufactured to a high-standard here in the UK, rather than in some far-flung sweatshop using dubiously sourced materials.

I know that in the FS 104 Signature XL I have a product which will last and boost the performance of many small to medium-sized loudspeakers. They are a very welcome addition to my reviewing arsenal. Congratulations to Paul Morton for dedicating so much care and attention to creating such effective products.

Specifications

Type: five column loudspeaker stand

Material: steel, acoustic steel

Top plate size HxWxD: 4 x 180 x 280mm

Base plate size HxWxD: 4 x 230 x 335mm

Available heights: 510mm (20"), 610mm (24") (custom height/build on request)

Mass loading: optional

Standard finishes: black, white

Optional finishes: brushed or polished chrome satellites

Warranty: lifetime against manufacturing faults



The ear is all about great music and great sound. It is written by hard bitten audio enthusiasts who strive to find the most engaging, entertaining and great value components and music of the highest calibre. This really is what living is all about.