



Photo: Rob Speight.

Super Sonic

Rob Speight talks to
loudspeaker designer
Tony Andrews of
Funktion One Research . . .



Tony Andrews with the active Resolution 2 system.

The mellow, softly spoken voice of loudspeaker designer Tony Andrews is a thinly drawn veil across his passion for quality audio and pristine reproduction. A product of the 60s, Andrews' outlook on life, the universe and everything can be seen reflected in the way in which Funktion One designs and builds its products in an almost communal atmosphere in the Surrey countryside.

Andrews' and Funktion One's history is a complex one, littered with cracking audio industry anecdotes and an insight into how the pro audio industry got into the position it is in today: "It was in the 60s when I discovered stereo and I suddenly became aware of all this space inside my head that I didn't know was there. It made me committed to working in audio, and in 1969 I started designing, building and renting PA loudspeaker systems," he recalls. From his love of Hi-Fi, Andrews was determined to make the same quality of audio achievable at gigs.

"In 1977 I had a chance meeting with John Newsham in Los Angeles whilst on a commission from TFA Electrosound to design and build a stadium rig for Rod Stewart. John was engineering for Steve Hillage at the time, and went on to become one of the most respected front-of-house engineers - a reputation he still holds today. John and I shared the same sonic ethos and got on so well that I invited him to join myself and Tim Isaac in our rental company, Turbosound, which was enjoying much success. This was a very educational experience as we were living or dying on the performance of our loudspeakers, not only in their sonic performance but also in the portability, truck pack, durability and set-up time," Andrews explains.

During this time the company formulated many of today's standard approaches to touring equipment: "It was me and Tim driving the technology back at base and John taking it out on tour, using it and giving us feedback. If the handles were in the wrong place then it was our fault," Andrews laughed.

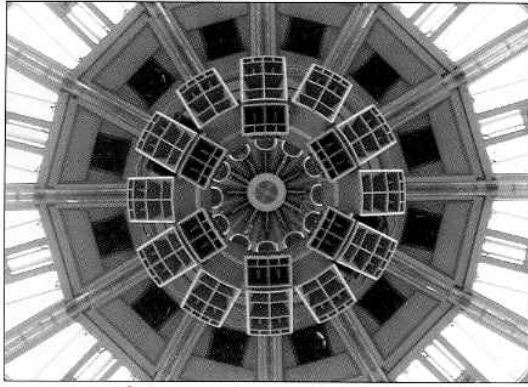
By the early 70s Andrews had the bass horn-loading technique sorted, providing his boxes with lots of fat, punchy bass from a small enclosure. This left the problem of the midrange: Andrews and his team thought that the large-format compression drivers that were available sounded so bad that the quest for a replacement underpinned the partnership.

"We'd been experimenting with horn-loading cone loudspeakers and came up with the first 'turbo' devices which were 12" and had phenomenal efficiency and directivity. Versions of these appeared in the TFA 'brown' system. The Festival System was our first use of them in Europe at the 1979 (reborn) Glastonbury Festival - which also marked the start of our transducer design so as to better match our unique loading techniques," Andrews says.

It soon became apparent, however, that the rental company would take years to pay off due to cut-throat pricing. He recalls: "We decided to concentrate solely on manufacturing as we feared larger manufacturers would adopt our designs as their own. We let the rental company go and it merged with Britannia Row. This was a difficult time for me. During the course of the 80s we became a dominant global player in professional loudspeakers and we merged with BSS and spawned Precision Devices under the banner of Edge Technology. In 1990, Edge Technology was sold to AKG and suffice to say, that time ranks as one of the worst times in my life."

After sticking with AKG for around a year, Andrews and his engineering team felt that their design ethos would be seriously compromised sooner or later. Eventually, they negotiated themselves out, just before the company sold, this time to Harman: "I'm happy to say that this original team of people is still with me now at Funktion One. We have been together for nearly 30 years. I can't think of another design team with such longevity and such a wealth of experience and I feel privileged to be part of it," Andrews smiles.

The team formed Funktion One and the first product to come out of the stable doors was the Floodlight system, which was licensed to Turbosound for



Funktion One in the Millennium Dome.

around a decade from 1993, complementing the pre-existing Flashlight boxes: "Although Flashlight was a ground-breaking product for its time, we became fully aware of its shortcomings. These were inadequate super highs and dynamically deficient upper bass (when used with 21s) . . . and so our objective as Funktion One became clear: eliminate all of the shortcomings of our earlier work, improve directivity and take sonic quality to the next level and make smaller, lighter and more efficient systems. In fact, evolve yet a third generation stemming from two fundamental discoveries about bass and midrange horn-loading techniques."

It was at this time that Funktion One patented its Axhead technology, as its R&D culminated in the Resolution 5, which entirely fulfilled the company's vision. The initial prototypes were so successful that they finished up in Jamiroquai's studio for main monitoring. Production of the Resolution Series began in earnest after its successful use at the Millennium Dome.

It had been apparent for some time to Andrews and his development team that the coherency of the first arrival at the listener's ear was one of the most important dimensions of loudspeaker enclosure design: "We have been as focussed on the importance of transient ability as we have been on frequency response, efficiency and minimising distortion since the early 80s. We have said little about this, but it is one of the reasons that our designs have such a unique sonic quality, which today is described as precise and accurate," he says.

More recently, Funktion One has made it into high frequency territory with the Resolution 1: "I was really pleased to have been able to finally eliminate the use of compression drivers altogether in favour of a very special cone loudspeaker, which incidentally we have just incorporated in our new stage monitor releases. This has been inspiring and there is more to come yet. Another gratifying development is the spectacular result we're achieving with our hybrid array technology at venues such as The Green Bay Packers' Stadium in Wisconsin," Andrews concludes.

With the company's eternal drive for perfection and their desire to introduce a plug and play system Funktion One has collaborated with XTA Electronics and developed a built-in power amplifier and DSP package.

With recent users of Funktion One boxes including the likes of the Kaiser Chiefs, The Zutons (see *news this issue*), Blue Nile and Jackson Browne, and a revolutionary installation at the newly redeveloped Ascot Race Course in Surrey, Andrews and his team are happy to be making themselves heard to a wider audience. With the entire range well on the way to being available in powered and non-powered versions, and PA companies such as Audio Plus purchasing stocks big enough to facilitate large tours, it may well be that violet is the new black.