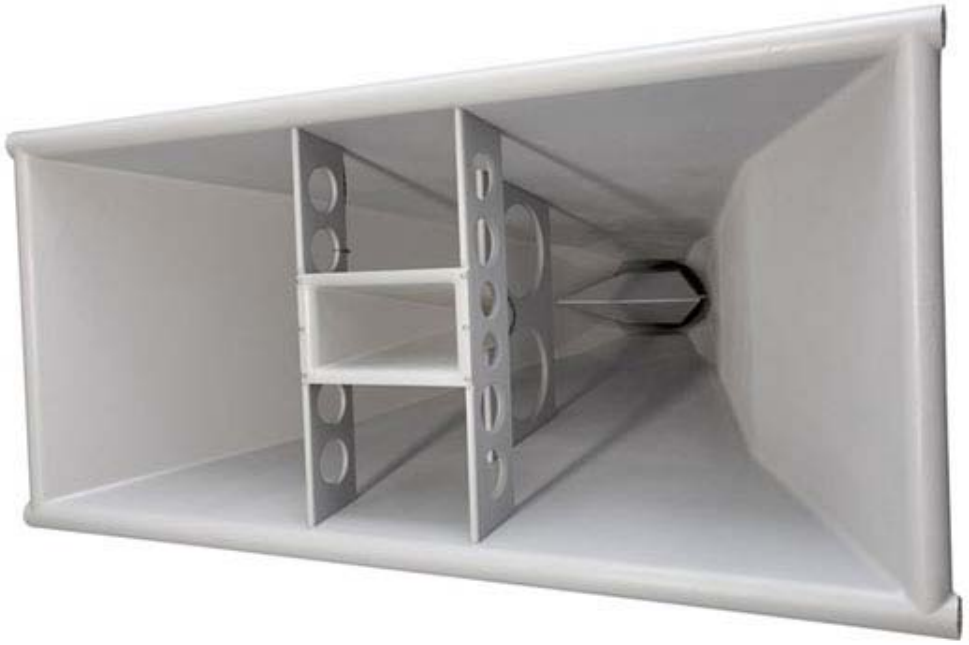
MST HORN

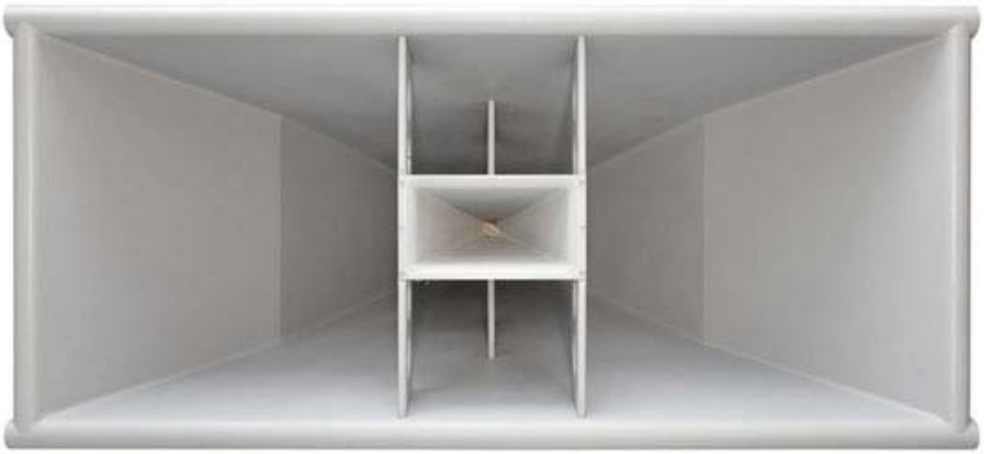
29 - 31 JANUARY 2013

Over the past few years, we have been working on a series of large format loudspeaker horns which, due to their size, deliver excellent low frequency dispersion control (not usually encountered). This means that in acoustically challenging environments such as Arenas and Stadia, sound can be focused where it's needed, without unnecessarily exciting the reverberant space. This control combined with our latest 10" cone midrange device presents a unique loudspeaker for large sound reinforcement applications with ultra low distortion and exceptional pattern control. This all makes for clear message transmission and intimate, intelligible and involving sound.

MST (Modular Stadium Technology) Horns actually made their maiden outing on the official music boats of the Flotilla for the Queen's Diamond Jubilee last year. They performed to a very specific requirement of focusing the sound in a 'stripe' that passed down the river with the individual boats...
http://www.funktion-one.com/news/funktion-one-on-the-thames



In the latter part of 2012, our Russian Distributor, Edelweiss Audio, brought us the great and challenging news that we had been successful with our design submission for the Russian Winter Olympics in Sochi in 2014. MST Systems are now already deployed in the Ice Hockey Arena and extensive Bob Sleigh site in Sochi - both challenging environments to say the least. These two main systems employ a total of 55 x MST Horns with numerous smaller speakers for peripheral areas. Both Bob Sleigh and Ice Arena systems are full music entertainment systems in addition to their role providing clear announcements and commentary.



MST HORN

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Tony recently wrote the following introduction to our MST Technology which we have included below to provide further background information and to answer the question about the idea behind the horns:

"Achieving good vocal intelligibility has always been a primary goal of any public address system. This is of particular importance in stadiums where the focus is on announcements and commentary. More recently, systems have been required to have sufficient bandwidth to be entertainment systems too. The major obstacle to achieving vocal intelligibility in large indoor and outdoor spaces is the very long reverb time which leads to intelligibility-destroying secondary arrivals (reflections) from roof or walls. This is a natural result from diffraction of frequencies whose wavelength is larger than the mouth dimensions of typically used loudspeaker waveguides. Typical waveguides are only large enough to control female vocal frequencies. Deeper male vocal and low mid frequencies from music are not controlled and so are diffracted in all directions giving rise to reflections. Therefore, the answer to highly reverberant spaces, is to employ sufficiently large waveguides to completely control all relevant frequencies including low mid, enabling audio to be directed solely to the audience areas. The sound that is normally exciting the reverberant field is actually focused on the people so not only is intelligibility improved but also sound level. It therefore behoves one to implement large waveguides of sufficient strength and stiffness to be fit for purpose. This would usually imply large devices of impractical weight.

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Tony Andrews extract continued …

Funktion One have been investigating and developing composite structures since our ground breaking installation at The Millennium Dome in London. We have achieved a combination of structure and materials which integrate strength, light weight and weather resistance with outstanding acoustic properties. This composite technology has opened the door to manufacturing large waveguide developments of Funktion One's unique cone driver loading technique weighing only 60 kilos. This technology offers unparalleled audio quality and sensitivity from a finely tuned cone driver and waveguide combination and the level of directivity control to be expected from a near 2 metre waveguide. The controlled directivity behaviour of the waveguides allows them to be combined at angles varying between 1 - 22.5 degrees to achieve desired SPL and coverage footprint."

MST AND AX88 ARRAYS - ISE SHOW AMSTERDAM

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Hall 7 Stand C190

We're publically showing MST horns for the first time at the ISE show in Amsterdam which starts Tuesday 29th Jan 2013 http://www.iseurope.org/